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30plug:segmentxbrli:sharesiso4217:USDplug:Dplug:customeriso4217:USDxbrli:sharesxbrli:pureplug:Plantplug:installmentiso4217:EURTable of Contents. â€‹UNITED STATESSECURITIES AND EXCHANGE COMMISSIONWashington, D.C. 20549â€‹FORMÂ 10-Q(Mark One)â€‹â˜’QUARTERLY REPORT PURSUANT TO SECTIONÂ 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934â€‹FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2024â€‹ORâ€‹â˜TRANSITION REPORT PURSUANT TO SECTIONÂ 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934â€‹FOR THE TRANSITION PERIOD FROM Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â TO Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â â€‹Commission File Number: 1-34392â€‹PLUG POWER INC.(Exact name of registrant as specified in its charter)â€‹â€‹â€‹â€‹â€‹â€‹â€‹Delawareâ€‹22-3672377(State or Other Jurisdiction ofâ€‹(I.R.S. EmployerIncorporation or Organization)â€‹Identification Number)â€‹125 VISTA BOULEVARD, SLINGERLANDS, NEW YORK 12159(Address of Principal Executive Offices, including Zip Code)â€‹(518) 782-7700(Registrantâ€™s telephone number, including area code)â€‹Securities registered pursuant to Section 12(b) of the Act:â€‹â€‹â€‹â€‹â€‹â€‹Title of Each ClassÂ Â Â Â Trading Symbol(s)Â Â Â Â Name of Each Exchange on Which RegisteredCommon Stock, par value $.01 per shareÂ PLUGâ€‹The NASDAQ Capital Market â€‹Indicate by check mark whether the registrant (1)Â has filed all reports required to be filed by SectionÂ 13 or 15(d)Â of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2)Â has been subject to such filing requirements for the past 90 days. YesÂ â˜’Â NoÂ â˜Â â€‹Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to RuleÂ 405 of Regulation S-T (Â§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YesÂ â˜’Â NoÂ â˜Â â€‹Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non- accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of â€œlarge accelerated filer,â€ â€œaccelerated filer,â€ â€œsmaller reporting company,â€ and â€œemerging growth companyâ€ in Rule 12b-2 of the Exchange Act.â€‹Large accelerated filerÂ â˜’Accelerated filerÂ â˜Non-accelerated filerÂ â˜SmallerÂ reportingÂ companyÂ â˜EmergingÂ growthÂ companyÂ â˜â€‹If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. â˜â€‹Indicate by check mark whether the registrant is a shell company (as defined in RuleÂ 12b-2 of the Exchange Act). YesÂ â˜Â NoÂ â˜’â€‹The number of shares of common stock, par value of $.01 per share, outstanding as of August 3, 2024 was 879,636,025 shares.â€‹â€‹â€‹ Table of ContentsINDEX to FORMÂ 10-Qâ€‹â€‹Pageâ€‹â€‹PART I. FINANCIAL INFORMATIONâ€‹â€‹â€‹Item 1 â€“ Interim Condensed Consolidated Financial Statements (Unaudited)3â€‹â€‹Condensed Consolidated Balance Sheets3â€‹â€‹Condensed Consolidated Statements of Operations4â€‹â€‹Condensed Consolidated Statements of Comprehensive Loss5â€‹â€‹Condensed Consolidated Statements of Stockholdersâ€™ Equity 6â€‹â€‹Condensed Consolidated Statements of Cash Flows7â€‹â€‹Notes to Interim Condensed Consolidated Financial Statements8â€‹â€‹Item 2 â€“ Managementâ€™s Discussion and Analysis of Financial Condition and Results of Operations37â€‹â€‹Item 3 â€“ Quantitative and Qualitative Disclosures About Market Risk60â€‹â€‹Item 4 â€“ Controls and Procedures60â€‹â€‹PART II. OTHER INFORMATIONâ€‹â€‹â€‹Item 1 â€“ Legal Proceedings61â€‹â€‹Item 1A â€“ Risk Factors61â€‹â€‹Item 2 â€“ Unregistered Sales of Equity Securities and Use of Proceeds62â€‹â€‹Item 3 â€“ Defaults Upon Senior Securities62â€‹â€‹Item 4 â€“ Mine Safety Disclosures62â€‹â€‹Item 5 â€“ Other Information62â€‹â€‹Item 6 â€“ Exhibits64â€‹â€‹Signatures66â€‹â€‹â€‹â€‹2 Table of ContentsPART 1.Â FINANCIAL INFORMATIONâ€‹Item 1 â€” Interim Financial Statements (Unaudited)â€‹Plug Power Inc. and SubsidiariesCondensed Consolidated Balance Sheets(In thousands, except share and per share amounts)(Unaudited)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â June 30,Â Â Â Â December 31, â€‹Â Â Â 2024Â Â Â 2023Assetsâ€‹â€‹â€‹â€‹â€‹â€‹Current assets:â€‹â€‹â€‹â€‹â€‹â€‹Cash and cash equivalentsâ€‹$ 62,359â€‹$ 135,033Restricted cashâ€‹â€‹ 222,847â€‹â€‹ 216,552Accounts receivable, net of allowance of $7,485 at June 30, 2024 and $8,798 at December 31, 2023â€‹Â 189,863â€‹Â 243,811Inventory, netâ€‹Â 939,534â€‹Â 961,253Contract assetsâ€‹â€‹ 132,900â€‹â€‹ 126,248Prepaid expenses and other current assetsâ€‹Â 124,919â€‹Â 104,068Total current assets â€‹Â 1,672,422â€‹Â 1,786,965â€‹â€‹â€‹â€‹â€‹â€‹â€‹Restricted cashâ€‹Â 733,700â€‹Â 817,559Property, plant, and equipment, netâ€‹â€‹ 1,509,693â€‹Â 1,436,177Right of use assets related to finance leases, netâ€‹â€‹ 54,735â€‹â€‹ 57,281Right of use assets related to operating leases, netâ€‹â€‹ 376,106â€‹â€‹ 399,969Equipment related to power purchase agreements and fuel delivered to customers, netâ€‹â€‹ 117,335â€‹Â 111,261Contract assetsâ€‹â€‹ 29,531â€‹â€‹ 29,741Intangible assets, net â€‹Â 178,338â€‹Â 188,886Investments in non-consolidated entities and non-marketable equity securitiesâ€‹â€‹ 96,814â€‹â€‹ 63,783Other assetsâ€‹Â 11,179â€‹Â 11,116Total assetsâ€‹$ 4,779,853â€‹$ 4,902,738â€‹â€‹â€‹â€‹â€‹â€‹â€‹Liabilities and Stockholdersâ€™ Equityâ€‹â€‹â€‹â€‹â€‹â€‹Current liabilities:â€‹â€‹â€‹â€‹â€‹â€‹Accounts payable â€‹$ 253,715â€‹$ 257,828Accrued expenses â€‹Â 112,612â€‹Â 200,544Deferred revenue and other contract liabilitiesâ€‹Â 174,828â€‹Â 204,139Operating lease liabilitiesâ€‹â€‹ 66,405â€‹â€‹ 63,691Finance lease liabilitiesâ€‹â€‹ 10,159â€‹â€‹ 9,441Finance obligationsâ€‹â€‹ 85,642â€‹â€‹ 84,031Current portion of long-term debtâ€‹â€‹ 3,030â€‹â€‹ 2,716Contingent consideration, loss accrual for service contracts, and other current liabilitiesâ€‹Â 103,223â€‹Â 142,410Total current liabilities â€‹Â 809,614â€‹Â 964,800â€‹â€‹â€‹â€‹â€‹â€‹â€‹Deferred revenue and other contract liabilities â€‹Â 71,018â€‹Â 84,163Operating lease liabilitiesâ€‹â€‹ 264,251â€‹â€‹ 292,002Finance lease liabilitiesâ€‹â€‹ 30,573â€‹â€‹ 36,133Finance obligationsâ€‹Â 245,011â€‹Â 284,363Convertible senior notes, netâ€‹â€‹ 208,576â€‹â€‹ 195,264Long-term debtâ€‹â€‹ 2,400â€‹â€‹ 1,209Contingent consideration, loss accrual for service contracts, and other liabilitiesâ€‹Â 159,830â€‹Â 146,679Total liabilities â€‹Â 1,791,273â€‹Â 2,004,613â€‹â€‹â€‹â€‹â€‹â€‹â€‹Stockholdersâ€™ equity:â€‹â€‹â€‹â€‹â€‹â€‹Common stock, $.01 par value per share; 1,500,000,000 shares authorized; Issued (including shares in treasury): 806,993,410 at June 30, 2024 and 625,305,025 at December 31, 2023â€‹Â 8,070â€‹Â 6,254Additional paid-in capital â€‹Â 8,137,182â€‹Â 7,494,685Accumulated other comprehensive lossâ€‹Â (1,949)â€‹Â (6,802)Accumulated deficitâ€‹Â (5,047,853)â€‹Â (4,489,744)Less common stock in treasury: 19,360,457 at June 30, 2024 and 19,169,366 at December 31, 2023â€‹â€‹ (106,870)â€‹â€‹ (106,268)Total stockholdersâ€™ equityâ€‹Â 2,988,580â€‹Â 2,898,125Total liabilities and stockholdersâ€™ equityâ€‹$ 4,779,853â€‹$ 4,902,738â€‹The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.â€‹â€‹3 Table of ContentsPlug Power Inc. and SubsidiariesCondensed Consolidated Statements of Operations(In thousands, except share and per share amounts)(Unaudited)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Three months endedâ€‹Six months endedâ€‹June 30,â€‹June 30,â€‹2024Â Â Â 2023Â Â Â Â 2024Â Â Â 2023Net revenue:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Sales of equipment, related infrastructure and other $ 76,788â€‹$ 216,286â€‹$ 145,083â€‹$ 398,380Services performed on fuel cell systems and related infrastructureâ€‹ 13,034â€‹â€‹ 8,701â€‹â€‹ 26,057â€‹â€‹ 17,798Power purchase agreementsâ€‹ 19,674â€‹Â 16,130â€‹â€‹ 37,978â€‹Â 24,067Fuel delivered to customers and related equipmentâ€‹ 29,887â€‹Â 17,878â€‹â€‹ 48,173â€‹Â 28,020Otherâ€‹ 3,967â€‹â€‹ 1,187â€‹â€‹ 6,323â€‹â€‹ 2,203Net revenueâ€‹ 143,350â€‹â€‹ 260,182â€‹â€‹ 263,614â€‹â€‹ 470,468Cost of revenue:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Sales of equipment, related infrastructure and other â€‹ 129,911â€‹Â 187,408â€‹â€‹ 265,036â€‹Â 345,728Services performed on fuel cell systems and related infrastructureâ€‹ 13,730â€‹Â 23,449â€‹â€‹ 26,687â€‹Â 35,670Provision for loss contracts related to serviceâ€‹ 16,484â€‹â€‹ 7,331â€‹â€‹ 32,229â€‹â€‹ 14,220Power purchase agreementsâ€‹ 54,312â€‹Â 53,976â€‹â€‹ 109,540â€‹Â 100,792Fuel delivered to customers and related equipmentâ€‹ 58,317â€‹Â 64,450â€‹â€‹ 116,890â€‹Â 118,951Otherâ€‹ 1,851â€‹Â 1,711â€‹â€‹ 3,562â€‹Â 2,646Total cost of revenueâ€‹ 274,605â€‹Â 338,325â€‹â€‹ 553,944â€‹Â 618,007â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Gross lossâ€‹ (131,255)â€‹Â (78,143)â€‹â€‹ (290,330)â€‹Â (147,539)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Operating expenses:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Research and development â€‹ 18,940â€‹â€‹ 29,251â€‹â€‹ 44,220â€‹â€‹ 55,786Selling, general and administrativeâ€‹ 85,144â€‹â€‹ 101,154â€‹â€‹ 163,103â€‹â€‹ 205,170Restructuringâ€‹ 1,629â€‹â€‹ â€”â€‹â€‹ 7,640â€‹â€‹ â€”Impairmentâ€‹ 3,937â€‹â€‹ 9,986â€‹â€‹ 4,221â€‹â€‹ 11,069Change in fair value of contingent considerationâ€‹ 3,768â€‹â€‹ 15,308â€‹â€‹ (5,432)â€‹â€‹ 24,077Total operating expensesâ€‹ 113,418â€‹â€‹ 155,699â€‹â€‹ 213,752â€‹â€‹ 296,102â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Operating lossâ€‹ (244,673)â€‹â€‹ (233,842)â€‹â€‹ (504,082)â€‹â€‹ (443,641)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Interest incomeâ€‹ 7,795â€‹Â 16,391â€‹â€‹ 17,072â€‹Â 34,023Interest expenseâ€‹ (9,511)â€‹â€‹ (11,265)â€‹â€‹ (20,836)â€‹â€‹ (21,915)Other expense, netâ€‹ (9,080)â€‹Â (5,082)â€‹â€‹ (16,076)â€‹Â (9,853)Realized gain on investments, netâ€‹ â€”â€‹â€‹ 264â€‹â€‹ â€”â€‹â€‹ 263Change in fair value of equity securitiesâ€‹ â€”â€‹â€‹ 3,842â€‹â€‹ â€”â€‹â€‹ 8,917Loss on equity method investmentsâ€‹ (7,240)â€‹â€‹ (7,623)â€‹â€‹ (20,353)â€‹â€‹ (12,940)Loss on extinguishment of convertible senior notesâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ (14,047)â€‹â€‹ â€”â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Loss before income taxes$ (262,709)â€‹$ (237,315)â€‹$ (558,322)â€‹$ (445,146)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Income tax benefitâ€‹ 376â€‹Â 917â€‹â€‹ 213â€‹Â 2,187â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Net loss $ (262,333)â€‹$ (236,398)â€‹$ (558,109)â€‹$ (442,959)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Net loss per share:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Basic and diluted$ (0.36)â€‹$ (0.40)â€‹$ (0.81)â€‹$ (0.75)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Weighted average number of common stock outstandingâ€‹ 736,848,684â€‹Â 598,053,390â€‹â€‹ 688,900,904â€‹Â 593,653,720â€‹The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.â€‹â€‹4 Table of ContentsPlug Power Inc. and SubsidiariesCondensed Consolidated Statements of Comprehensive Loss(In thousands) (Unaudited)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Three months endedâ€‹Six months endedâ€‹â€‹June 30,â€‹June 30,â€‹Â Â Â Â 2024Â Â Â Â 2023â€‹2024Â Â Â Â 2023â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Net lossâ€‹$ (262,333)â€‹$ (236,398)â€‹$ (558,109)â€‹$ (442,959)Other comprehensive income:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Foreign currency translation gainâ€‹Â 7,129â€‹Â 3,073â€‹Â 4,853â€‹Â 4,732Change in net unrealized gain on available-for-sale securitiesâ€‹â€‹ â€”â€‹â€‹ 2,197â€‹â€‹ â€”â€‹â€‹ 7,508Comprehensive loss, net of taxâ€‹$ (255,204)â€‹$ (231,128)â€‹$ (553,256)â€‹$ (430,719)â€‹The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.â€‹â€‹5 Table of ContentsPlug Power Inc. and SubsidiariesCondensed Consolidated Statements of Stockholdersâ€™ Equity(In thousands, except share amounts) (Unaudited)â€‹Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â â€‹Â Â Â Â Â Â Â Â â€‹Â Â Â Â Accumulated Â Â Â â€‹Â Â Â Â Â Â Â
inâ€‹Comprehensiveâ€‹TreasuryÂ Stockâ€‹Accumulatedâ€‹Stockholdersâ€™â€‹Â Â Â Â SharesÂ Â Â Â AmountÂ Â Â Â CapitalÂ Â Â Â Gain/(Loss)Â Â Â Â SharesÂ Â Â Â AmountÂ Â Â Â DeficitÂ
31, 2023Â 625,305,025â€‹$ 6,254â€‹$ 7,494,685â€‹$ (6,802)Â 19,169,366â€‹$ (106,268)â€‹$ (4,489,744)â€‹$ 2,898,125Net lossâ€‹ â€”â€‹Â â€”â€‹Â â€”â€‹Â â€”Â â€”â€‹Â â€”â€‹Â (295,776)â€‹Â (295,776)Other comprehensive lossâ€‹ â€”â€‹Â â€”â€‹Â â€”â€‹Â (2,231)Â â€”â€‹Â â€”â€‹Â â€”â€‹â€‹ (2,231)Stock-based compensationâ€‹ 923,027â€‹Â 9â€‹Â 13,695â€‹Â â€”Â â€”â€‹Â â€”â€‹Â â€”â€‹Â 13,704Public offerings, common stock, net of issuance costsâ€‹ 79,553,175â€‹â€‹ 796â€‹â€‹ 304,550â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 305,346Stock option exercises and issuance of common stock upon grant/vesting of restricted stock and restricted stock unit awardsâ€‹ (176,678)â€‹Â (2)â€‹Â 43â€‹Â â€”Â â€”â€‹Â â€”â€‹Â â€”â€‹Â 41Treasury stock acquired from employees upon exercise of stock options and vesting of restricted stock and restricted stock unit awardsâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹ 72,849â€‹â€‹ (278)â€‹â€‹ â€”â€‹â€‹ (278)Provision for common stock warrantsâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ 10,236â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 10,236March 31, 2024Â 705,604,549â€‹$ 7,057â€‹$ 7,823,209â€‹$ (9,033)Â 19,242,215â€‹$ (106,546)â€‹$ (4,785,520)â€‹$ 2,929,167Net lossâ€‹ â€”â€‹Â â€”â€‹Â â€”â€‹Â â€”Â â€”â€‹Â â€”â€‹Â (262,333)â€‹Â (262,333)Other comprehensive incomeâ€‹ â€”â€‹Â â€”â€‹Â â€”â€‹Â 7,084Â â€”â€‹Â â€”â€‹Â â€”â€‹â€‹ 7,084Stock-based compensationâ€‹ 1,252,258â€‹Â 13â€‹Â 26,296â€‹Â â€”Â â€”â€‹Â â€”â€‹Â â€”â€‹Â 26,309Public offerings, common stock, net of issuance costsâ€‹ 96,812,695â€‹â€‹ 968â€‹â€‹ 265,806â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 266,774Stock option exercises and issuance of common stock upon grant/vesting of restricted stock and restricted stock unit awardsâ€‹ 698,280â€‹Â 6â€‹Â 20â€‹Â â€”Â â€”â€‹Â â€”â€‹Â â€”â€‹Â

26Treasury stock acquired from employees upon exercise of stock options and vesting of restricted stock and restricted stock unit awardsâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹ 118,242â€‹â€‹ (324)â€‹â€‹ â€”â€‹â€‹ (324)Earnouts from acquisitions paid in stockâ€‹ 2,625,628â€‹â€‹ 26â€‹â€‹ 18,215â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 18,241Provision for common stock warrantsâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ 3,636â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 3,636June 30, 2024Â 806,993,410â€‹$ 8,070â€‹$ 8,137,182â€‹$ (1,949)Â 19,360,457â€‹$ (106,870)â€‹$ (5,047,853)â€‹$ 2,988,580â€‹December 31, 2022Â 608,421,785â€‹$ 6,084â€‹$ 7,297,306â€‹$ (26,004)Â 18,076,127â€‹$ (96,261)â€‹$ (3,120,911)â€‹$ 4,060,214Net lossâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹ â€”â€‹â€‹ (206,561)â€‹â€‹ (206,561)Other comprehensive incomeâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 6,970â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 6,970Stock-based compensationâ€‹ 228,954â€‹â€‹ 2â€‹â€‹ 43,300â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 43,302Stock option exercises and issuance of common stock upon grant/vesting of restricted stock and restricted stock unit awardsâ€‹ 620,250â€‹â€‹ 6â€‹â€‹ 668â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 674Treasury stock acquired from employees upon exercise of stock options and vesting of restricted stock and restricted stock unit awardsâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹ 169,787â€‹â€‹ (2,590)â€‹â€‹ â€”â€‹â€‹ (2,590)Exercise of warrantsâ€‹ 2,680,637â€‹â€‹ 28â€‹â€‹ (28)â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”Provision for common stock warrantsâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ 19,641â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 19,641March 31, 2023â€‹ 611,951,626â€‹$ 6,120â€‹$ 7,360,887â€‹$ (19,034)â€‹ 18,245,914â€‹$ (98,851)â€‹$ (3,327,472)â€‹$ 3,921,650Net lossâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹ â€”â€‹â€‹ (236,398)â€‹â€‹ (236,398)Other comprehensive incomeâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 5,270â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 5,270Stock-based compensationâ€‹ 338,328â€‹â€‹ 3â€‹â€‹ 39,915â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 39,918Stock option exercises and issuance of common stock upon grant/vesting of restricted stock and restricted stock unit awardsâ€‹ 246,717â€‹â€‹ 3â€‹â€‹ 55â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 58Treasury stock acquired from employees upon exercise of stock options and vesting of restricted stock and restricted stock unit awardsâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹ 39,349â€‹â€‹ (364)â€‹â€‹ â€”â€‹â€‹ (364)Exercise of warrantsâ€‹ 6,623,794â€‹â€‹ 66â€‹â€‹ (66)â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”Provision for common stock warrantsâ€‹ â€”â€‹â€‹ â€”â€‹â€‹ 951â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 951Earnouts from acquisitions paid in stockâ€‹ 927,042â€‹â€‹ 9â€‹â€‹ 7,991â€‹â€‹ â€”â€‹ â€”â€‹â€‹ â€”â€‹â€‹ â€”â€‹â€‹ 8,000June 30, 2023â€‹ 620,087,507â€‹$ 6,201â€‹$ 7,409,733â€‹$ (13,764)â€‹ 18,285,263â€‹$ (99,215)â€‹$ (3,563,870)â€‹$ 3,739,085â€‹The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.6 Table of ContentsPlug Power Inc. and SubsidiariesCondensed Consolidated Statements of Cash Flows(In thousands)(Unaudited)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Six months ended June 30,â€‹Â Â Â 2024â€‹2023Operating activitiesâ€‹â€‹â€‹â€‹â€‹â€‹Net lossâ€‹$ (558,109)â€‹$ (442,959)Adjustments to reconcile net loss to net cash used in operating activities: â€‹â€‹â€‹â€‹â€‹â€‹Depreciation of long-lived assetsâ€‹Â 34,603â€‹Â 21,266Amortization of intangible assets â€‹Â 9,434â€‹Â 9,755Lower of cost or net realizable value inventory adjustment and provision for excess and obsolete inventoryâ€‹â€‹ 53,359â€‹â€‹ 11,760Stock-based compensation â€‹Â 40,013â€‹Â 83,220Loss on extinguishment of convertible senior notesâ€‹â€‹ 14,047â€‹â€‹ â€”(Recoveries)/provision for losses on accounts receivableâ€‹â€‹ (1,313)â€‹â€‹ 896Amortization of (premium)/discount of debt issuance costs on convertible senior notes and long-term debtâ€‹â€‹ (718)â€‹â€‹ 1,195Provision for common stock warrantsâ€‹â€‹ 10,327â€‹â€‹ 14,302Deferred income tax (benefit)/expenseâ€‹â€‹ (213)â€‹â€‹ 1,512Impairmentâ€‹â€‹ 4,221â€‹â€‹ 11,069Loss on service contracts â€‹â€‹ 7,292â€‹â€‹ 856Fair value adjustment to contingent considerationâ€‹â€‹ (5,432)â€‹â€‹ 24,077Net realized loss on investmentsâ€‹â€‹ â€”â€‹â€‹ (263)Accretion of premium on available-for-sale securitiesâ€‹â€‹ â€”â€‹â€‹ (5,949)Lease origination costsâ€‹â€‹ (2,467)â€‹â€‹ (5,567)Change in fair value for equity securitiesâ€‹â€‹ â€”â€‹â€‹ (8,917)Loss on equity method investmentsâ€‹â€‹ 20,353â€‹â€‹ 12,940Changes in operating assets and liabilities that provide/(use) cash: â€‹â€‹â€‹â€‹â€‹â€‹Accounts receivable â€‹Â 55,261â€‹Â (88,091)Inventory â€‹Â (11,925)â€‹Â (269,707)Contract assetsâ€‹â€‹ (2,897)â€‹â€‹ (23,807)Prepaid expenses and other assets â€‹Â (20,864)â€‹Â 9,178Accounts payable, accrued expenses, and other liabilities â€‹Â (15,818)â€‹Â (720)Payments of contingent considerationâ€‹â€‹ (9,164)â€‹â€‹ (2,895)Deferred revenue and other contract liabilitiesâ€‹Â (42,456)â€‹Â 21,838Net cash used in operating activities â€‹Â (422,466)â€‹Â (625,011)â€‹â€‹â€‹â€‹â€‹â€‹Investing activitiesâ€‹â€‹â€‹â€‹â€‹â€‹Purchases of property, plant and equipment â€‹Â (193,923)â€‹Â (319,322)Purchases of equipment related to power purchase agreements and equipment related to fuel delivered to customersâ€‹â€‹ (11,022)â€‹â€‹ (19,309)Proceeds from maturities of available-for-sale securitiesâ€‹â€‹ â€”â€‹â€‹ 908,749Proceeds from sales of equity securitiesâ€‹â€‹ â€”â€‹â€‹ 76,263Cash paid for non-consolidated entities and non-marketable equity securitiesâ€‹â€‹ (63,713)â€‹â€‹ (40,894)Net cash (used in)/provided by investing activities â€‹Â (268,658)â€‹Â 605,487â€‹â€‹â€‹â€‹â€‹â€‹Financing activitiesâ€‹â€‹â€‹â€‹â€‹â€‹Payments of contingent considerationâ€‹â€‹ (1,836)â€‹â€‹ (10,105)Proceeds from public and private offerings, net of transaction costsâ€‹â€‹ 572,120â€‹â€‹ â€”Payments of tax withholding on behalf of employees for net stock settlement of stock-based compensationâ€‹â€‹ (602)â€‹â€‹ (2,954)Proceeds from exercise of stock optionsâ€‹Â 67â€‹Â 732Principal payments on long-term debtâ€‹â€‹ (685)â€‹â€‹ (5,407)Proceeds from finance obligationsâ€‹â€‹ â€”â€‹â€‹ 77,589Principal repayments of finance obligations and finance leasesâ€‹â€‹ (42,313)â€‹â€‹ (34,211)Net cash provided by financing activitiesâ€‹Â 526,751â€‹Â 25,644Effect of exchange rate changes on cash â€‹Â 14,135â€‹Â (2,139)Decrease in cash and cash equivalents â€‹Â (72,674)â€‹Â (111,212)(Decrease)/increase in restricted cashâ€‹â€‹ (77,564)â€‹â€‹ 115,193Cash, cash equivalents, and restricted cash beginning of periodâ€‹Â 1,169,144â€‹Â 1,549,344Cash, cash equivalents, and restricted cash end of periodâ€‹$ 1,018,906â€‹$ 1,553,325â€‹â€‹â€‹â€‹â€‹â€‹Supplemental disclosure of cash flow informationâ€‹â€‹â€‹â€‹â€‹â€‹Cash paid for interest, net of capitalized interest of $5.2 million at June 30, 2024 and $4.0 million at June 30, 2023â€‹$ 22,595â€‹$ 20,101â€‹â€‹â€‹â€‹â€‹â€‹Summary of non-cash activityâ€‹â€‹â€‹â€‹â€‹â€‹Recognition of right of use asset - finance leasesâ€‹$ 163â€‹$ 4,818Recognition of right of use asset - operating leasesâ€‹â€‹ 5,404â€‹â€‹ 56,328Net transfers between inventory and long-lived assetsâ€‹â€‹ 19,349â€‹â€‹ 705Earnouts from acquisitions paid in common stock and warrantsâ€‹â€‹ 18,241â€‹â€‹ 8,000Purchases of long lived asset from financing agreementâ€‹â€‹ 2,000â€‹â€‹ â€”Accrued purchase of fixed assets, cash to be paid in subsequent periodâ€‹â€‹ 84,339â€‹â€‹ 109,490â€‹â€‹The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements.â€‹7 Table of Contents1.Â Nature of Operationsâ€‹Plug Power Inc. (the â€œCompanyâ€, â€œPlugâ€, â€œweâ€ or â€œourâ€) is facilitating the paradigm shift to an increasingly electrified world by innovating cutting-edge hydrogen and fuel cell solutions. While we continue to develop commercially viable hydrogen and fuel cell product solutions, we have expanded our offerings to support a variety of commercial operations that can be powered with clean hydrogen. We provide electrolyzers that allow customers â€” such as refineries, producers of chemicals, steel, fertilizer and commercial refueling stations â€” to generate hydrogen on-site. We are focusing our efforts on (a) industrial mobility applications, including electric forklifts and electric industrial vehicles, at multi shift high volume manufacturing and high throughput distribution sites where we believe our products and services provide a unique combination of productivity, flexibility, and environmental benefits; (b) production of hydrogen; and (c) stationary power systems that will support critical operations, such as data centers, microgrids, and generation facilities, in either a backup power or continuous power role, and replace batteries, diesel generators or the grid for telecommunication logistics, transportation, and utility customers. Plug expects to support these products and customers with an ecosystem of vertically integrated products that produce, transport, store and handle, dispense, and use hydrogen for mobility and power applications.â€‹Liquidity and Capital Resourcesâ€‹The Companyâ€™s working capital was $862.8Â million as of June 30, 2024, which included unrestricted cash and cash equivalents of $62.4Â million and restricted cash of $956.5Â million. On January 17, 2024, the Company entered into the At Market Issuance Sales Agreement (the â€œOriginal ATM Agreementâ€) with B. Riley Securities, Inc. (â€œB. Rileyâ€), pursuant to which the Company may, from time to time, offer and sell through or to B. Riley, as sales agent or principal, shares of the Companyâ€™s common stock, having an aggregate offering price of up to $1.0 billion. As of February 23, 2024, the Company had $697.9 million remaining authorized for issuance under the Original ATM Agreement. On February 23, 2024, the Company and B. Riley entered into Amendment No. 1 to the Original ATM Agreement (the â€œAmendmentâ€ and, together with the Original ATM Agreement, the â€œATM Agreementâ€) to increase the aggregate offering price of shares of the Companyâ€™s common stock available for future issuance under the Original ATM Agreement to $1.0 billion. Under the ATM Agreement, for a period of 18 months, the Company has the right at its sole discretion to direct B. Riley to act on a principal basis and purchase directly from the Company up to $11.0 million of shares of its common stock on any trading day (the â€œMaximum Commitment Advance Purchase Amountâ€) and up to $55.0 million of shares in any calendar week (the â€œMaximum Commitment Advance Purchase Amount Capâ€). On and after June 1, 2024, so long as the Companyâ€™s market capitalization is no less than $1.0 billion, the Maximum Commitment Advance Purchase Amount will remain $11.0 million and the Maximum Commitment Advance Purchase Amount Cap will remain $55.0 million. If the Companyâ€™s market capitalization is less than $1.0 billion on and after June 1, 2024, the Maximum Commitment Advance Purchase Amount will be decreased to $10.0 million and the Maximum Commitment Advance Purchase Amount Cap will be decreased to $30.0 million. Since January 17, 2024, the Company has sold 189,411,442 shares of common stock for gross proceeds of $611.5 million. As of the date of filing of this Quarterly Report on Form 10-Q, the Company has a remaining $690.6 million available under the ATM Agreement.â€‹On July 22, 2024, the Company sold 78,740,157 shares of its common stock at a public offering price of $2.54 per share for net proceeds of $191.0 million after deduction of the underwriting discount and related offering expenses in an underwritten public offering with Morgan Stanley & Co. LLC. The Company granted the underwriter a 30-day option to purchase up to an additional 11,811,023 shares of common stock at the public offering price, less the underwriting discount.â€‹The Company believes that its working capital and cash position, together with its right to direct B. Riley to purchase shares directly from the Company under the ATM Agreement and its public offering of common stock completed in July 2024, will be sufficient to fund its on-going operations for a period of at least 12 months subsequent to the issuance of the accompanying unaudited interim condensed consolidated financial statements.â€‹8 Table of Contents2.Â Summary of Significant Accounting Policiesâ€‹PrinciplesÂ of Consolidationâ€‹The unaudited interim condensed consolidated financial statements include the financial statements of the Company and its wholly-owned subsidiaries. Intercompany balances and transactions have been eliminated in consolidation. In addition, we include our share of the results of our joint ventures with Renault SAS (â€œRenaultâ€) named HyVia SAS, a French sociÃ©tÃ© par actions simplifiÃ©e (â€œHyViaâ€), AccionaPlug S.L. (â€œAccionaPlugâ€), and SK Plug Hyverse Co., Ltd. (â€œSK Plug Hyverseâ€), and our investment in Clean H2 Infra Fund, using the equity method based on our economic ownership interest and our ability to exercise significant influence over the operating and financial decisions of HyVia, AccionaPlug, SK Plug Hyverse and Clean H2 Infra Fund.â€‹Interim Financial Statementsâ€‹The accompanying unaudited interim condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (â€œSECâ€). In the opinion of management, all adjustments, which consist solely of normal recurring adjustments, necessary to present fairly, in accordance with U.S. generally accepted accounting principles (â€œGAAPâ€), the financial position, results of operations and cash flows for all periods presented, have been made. The results of operations for the interim periods presented are not necessarily indicative of the results that may be expected for the full year.â€‹Certain information and footnote disclosures normally included in annual consolidated financial statements prepared in accordance with GAAP have been condensed or omitted. These unaudited interim condensed consolidated financial statements should be read in conjunction with the Companyâ€™s audited consolidated financial statements and notes thereto included in the Companyâ€™s Annual Report on Form 10-K for the fiscal year ended December 31, 2023 (the â€œ2023 Form 10-Kâ€).â€‹The information presented in the accompanying unaudited interim condensed consolidated balance sheets as of December 31, 2023 has been derived from the Companyâ€™s 2023 audited consolidated financial statements.â€‹The unaudited interim condensed consolidated financial statements contained herein should be read in conjunction with our 2023 Form 10-K.â€‹Clean Hydrogen Production Tax Creditâ€‹Beginning in the second quarter of 2024, the Company has determined it qualifies for the clean hydrogen production tax credit (â€œPTCâ€) under Section 45V as part of the Inflation Reduction Act of 2022 (â€œIRAâ€) resulting from operation of the Companyâ€™s hydrogen production plant located in Georgia. As a result, the Company recorded approximately $1.3 million to the other assets financial statement line item of the unaudited interim condensed consolidated balance sheet and a reduction to the fuel delivered to customers and related equipment cost of revenue financial statement line item of the unaudited interim condensed consolidated statement of operations.â€‹Recent Accounting Pronouncements â€‹Recently Adopted Accounting Guidanceâ€‹There have been no significant changes in our reported financial position or results of operations and cash flows resulting from the adoption of new accounting pronouncements.â€‹9 Table of ContentsRecent Accounting Guidance Not Yet Effectiveâ€‹Other than the standards mentioned in our 2023 Form 10-K, all issued but not yet effective accounting and reporting standards as of June 30, 2024 are either not applicable to the Company or are not expected to have a material impact on the Company.â€‹3. Extended Maintenance Contractsâ€‹On a quarterly basis, we evaluate any potential losses related to our extended maintenance contracts for sales of equipment, related infrastructure and other that have been sold. The following table shows the roll forward of balances in the accrual for loss contracts, including changes due to the provision for loss accrual, releases to service cost of sales, increase to loss accrual related to customer warrants, and foreign currency translation adjustment (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Six months endedâ€‹Year endedâ€‹June 30, 2024Â Â December 31, 2023Beginning balance$ 137,853â€‹$81,066 Provision for loss accrualâ€‹ 32,135â€‹â€‹85,375 Releases to service cost of salesâ€‹ (24,937)â€‹â€‹(29,713)Increase to loss accrual related to customer warrantsâ€‹ 94â€‹â€‹ 971Foreign currency translation adjustmentâ€‹ (149)â€‹â€‹ 154Ending balance$ 144,996â€‹$137,853 â€‹The Company increased its loss accrual to $145.0 million for the six months ended June 30, 2024 primarily due to continued cost increases of GenDrive labor, parts and related overhead coupled with new GenDrive contracts entered into requiring provisions to be set up. As a result, the Company increased its estimated projected costs.â€‹4. Earnings Per Shareâ€‹Basic earnings per common stock are computed by dividing net loss by the weighted average number of common stock outstanding during the reporting period. Since the Company is in a net loss position, all common stock equivalents would be considered anti-dilutive and are therefore not included in the determination of diluted earnings per share. Accordingly, basic and diluted loss per share are the same. â€‹The potentially dilutive securities are summarized as follows:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹As of June 30, â€‹Â Â Â Â 2024Â Â Â Â 2023Stock options outstanding (1)â€‹ 42,380,705Â 33,821,392Restricted stock and restricted stock units outstanding (2)â€‹ 6,282,815Â 5,529,831Common stock warrants (3)â€‹ 82,022,634â€‹ 78,561,263Convertible Senior Notes (4)â€‹ 44,661,605Â 39,170,766Number of dilutive potential shares of common stockâ€‹ 175,347,759Â 157,083,252(1)During the three months ended June 30, 2024 and 2023, the Company granted options for 7,107,625 and 6,782,043 shares of common stock, respectively. During the six months ended June 30, 2024 and 2023, the Company granted options for 7,420,625 and 6,876,593 shares of common stock, respectively.â€‹(2)During the three months ended June 30, 2024 and 2023, the Company granted 1,037,057 and 294,143 shares of restricted stock and restricted stock units, respectively. During the six months ended June 30, 2024 and 2023, the Company granted 1,054,057 and 388,693 shares of restricted stock and restricted stock units, respectively.â€‹10 Table of Contents(3)In May 2024, the Company issued warrants to purchase the Companyâ€™s shares of common stock and the Company filed a prospectus supplement registering for resale up to 3,461,371 shares of the Companyâ€™s common stock issuable upon exercise of the warrants that were issued in connection with an earn-out settlement agreement with Giner ELX, Inc. (â€œGinerâ€) as described in Note 15, â€œFair Value Measurementsâ€. The warrants have not been exercised as of June 30, 2024.â€‹In August 2022, the Company issued a warrant to acquire up to 16,000,000 shares of the Companyâ€™s common stock as part of a transaction agreement with Amazon.com, Inc. (â€œAmazonâ€), subject to certain vesting events, as described in Note 12, â€œWarrant Transaction Agreementsâ€. The warrant had not been exercised as of June 30, 2024 and 2023, respectively.â€‹In April 2017, the Company issued a warrant to acquire up to 55,286,696 shares of the Companyâ€™s common stock as part of a transaction agreement with Amazon, subject to certain vesting events, as described in Note 12, â€œWarrant Transaction Agreementsâ€. The warrant had been exercised with respect to 34,917,912 shares of the Companyâ€™s common stock as of June 30, 2024 and 2023.â€‹In July 2017, the Company issued a warrant to acquire up to 55,286,696 shares of the Companyâ€™s common stock as part of a transaction agreement with Walmart, Inc. (â€œWalmartâ€), subject to certain vesting events, as described in Note 12, â€œWarrant Transaction Agreementsâ€. The warrant had been exercised with respect to 13,094,217 shares of the Companyâ€™s common stock as of June 30, 2024 and 2023.â€‹(4)In March 2024, the Company exchanged $138.8 million in aggregate principal amount of the 3.75% Convertible Senior Notes for $140.4 million in aggregate principal amount of the 7.00% Convertible Senior Notes due 2026 (the â€œ7.00% Convertible Senior Notesâ€) as described in Note 10, â€œConvertible Senior Notesâ€. There were no conversions of the 7.00% Convertible Senior Notes during the three and six months ended June 30, 2024 and 2023.â€‹In May 2020, the Company issued $212.5 million in aggregate principal amount of the 3.75% Convertible Senior Notes due 2025 (the â€œ3.75% Convertible Senior Notesâ€) as described in Note 10, â€œConvertible Senior Notesâ€. There were no conversions of the 3.75% Convertible Senior Notes during the three and six months ended June 30, 2024 and 2023.â€‹â€‹â€‹5. Inventoryâ€‹Inventory as of June 30, 2024 and December 31, 2023 consisted of the following (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â June 30, Â Â Â Â December 31, â€‹â€‹2024â€‹2023Raw materials and supplies - production locationsâ€‹$ 536,835â€‹$ 564,818Raw materials and supplies - customer locationsâ€‹â€‹ 29,775â€‹â€‹ 20,751Work-in-processâ€‹Â 144,544â€‹Â 149,574Finished goodsâ€‹Â 228,380â€‹Â 226,110Inventoryâ€‹$ 939,534â€‹$ 961,253â€‹Inventory is comprised of raw materials, work-in-process, and finished goods. The

Company had inventory reserves made up of excess and obsolete items and related lower of cost or net realizable value adjustments of $112.9 million and $85.2 million as of June 30, 2024 and December 31, 2023, respectively.â€‹11 Table of Contents6. Property, Plant and Equipmentâ€‹Property, plant and equipment as of June 30, 2024 and December 31, 2023 consisted of the following (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹June 30,â€‹December 31,â€‹â€‹2024â€‹2023Landâ€‹$ 5,706â€‹$ 6,049Construction in progressâ€‹â€‹ 891,606â€‹â€‹ 1,109,896Hydrogen production plantsâ€‹â€‹ 364,703â€‹â€‹ 77,107Building and leasehold improvementsâ€‹â€‹ 104,650â€‹â€‹ 95,229Software, machinery, and equipment â€‹Â 252,011â€‹Â 229,352Property, plant and equipmentâ€‹Â 1,618,676â€‹Â 1,517,633Less: accumulated depreciationâ€‹Â (108,983)â€‹Â (81,456)Property, plant and equipment, netâ€‹$ 1,509,693â€‹$ 1,436,177â€‹Construction in progress is primarily comprised of construction of three hydrogen production plants. Completed assets are transferred to their respective asset classes, and depreciation begins when an asset is ready for its intended use. Interest on outstanding debt is capitalized during periods of capital asset construction and amortized over the useful lives of the related assets. During the three months ended June 30, 2024 and 2023, the Company capitalized $3.1 million and $2.0 million of interest, respectively. During the six months ended June 30, 2024 and 2023, the Company capitalized $5.2 million and $4.0 million of interest, respectively.â€‹Depreciation expense related to property, plant and equipment was $13.1 million and $7.3 million for the three months ended June 30, 2024 and 2023, respectively. Depreciation expense related to property, plant and equipment was $24.7 million and $12.8 million for the six months ended June 30, 2024 and 2023, respectively.â€‹7. Intangible Assetsâ€‹The gross carrying amount and accumulated amortization of the Companyâ€™s acquired identifiable intangible assets as of June 30, 2024 were as follows (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹WeightedÂ Averageâ€‹GrossÂ Carryingâ€‹Accumulatedâ€‹â€‹â€‹â€‹â€‹AmortizationÂ Periodâ€‹Amountâ€‹Amortizationâ€‹TotalAcquir technologyÂ 14 yearsÂ $ 102,822â€‹$ (23,818)â€‹$ 79,004Dry stack electrolyzer technologyâ€‹10 yearsâ€‹â€‹ 29,000â€‹â€‹ (6,767)â€‹â€‹ 22,233Customer relationships, trade name and otherâ€‹13 yearsâ€‹Â 102,682â€‹â€‹ (25,581)â€‹â€‹ 77,101â€‹â€‹â€‹â€‹$ 234,504â€‹$ (56,166)â€‹$ 178,338â€‹The gross carrying amount and accumulated amortization of the Companyâ€™s acquired identifiable intangible assets as of December 31, 2023 were as follows (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹WeightedÂ Averageâ€‹GrossÂ Carryingâ€‹Accumulatedâ€‹â€‹â€‹â€‹â€‹AmortizationÂ Periodâ€‹Amountâ€‹Amortizationâ€‹TotalAcquir technology Â 14 yearsâ€‹$ 103,060â€‹$ (20,204)â€‹$ 82,856Dry stack electrolyzer technologyâ€‹10 yearsâ€‹â€‹ 29,000â€‹â€‹ (5,317)â€‹â€‹ 23,683Customer relationships, trade name and otherÂ 13 yearsâ€‹Â 103,981â€‹â€‹ (21,634)â€‹Â 82,347â€‹â€‹â€‹â€‹$ 236,041â€‹$ (47,155)â€‹$ 188,886â€‹The change in the gross carrying amount of the acquired technology and customer relationships, trade name and other from December 31, 2023 to June 30, 2024 was due to foreign currency translation.â€‹12 Table of ContentsAmortization expense for acquired identifiable intangible assets for the three months ended June 30, 2024 and 2023 was $4.6 million and $4.8 million, respectively. Amortization expense for acquired identifiable intangible assets for the six months ended June 30, 2024 and 2023 was $9.4 million and $9.8 million, respectively.â€‹The estimated amortization expense for subsequent years is as follows (in thousands):â€‹â€‹â€‹â€‹â€‹Remainder of 2024Â Â Â Â $ 9,3802025â€‹â€‹ 18,0362026â€‹â€‹ 16,4622027â€‹â€‹ 16,4552028â€‹â€‹ 16,0462029 and thereafterâ€‹â€‹ 101,959Totalâ€‹$ 178,338â€‹â€‹8. Accrued Expensesâ€‹Accrued expenses as of June 30, 2024 and December 31, 2023 consisted of (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â June 30,Â Â Â Â December 31,â€‹â€‹2024â€‹2023Accrued payroll and compensation related costs â€‹$ 18,267â€‹$ 32,584Accrual for capital expendituresâ€‹â€‹ 16,684â€‹â€‹ 83,781Accrued accounts payableâ€‹â€‹ 55,203â€‹â€‹ 64,767Accrued sales and other taxesâ€‹â€‹ 19,797â€‹â€‹ 17,207Accrued interestâ€‹â€‹ 991â€‹â€‹ 562Accrued otherâ€‹â€‹ 1,670â€‹â€‹ 1,643Totalâ€‹$ 112,612â€‹$ 200,544â€‹â€‹9. Long-Term Debtâ€‹During the second quarter of 2024, the Company began repaying principal and interest on a $2.0 million allowance for tenant work related to its manufacturing facility in Slingerlands, NY. In accordance with ASC 842, Leases (â€œASC 842â€), the allowance is treated as a freestanding financial instrument separate from the facility lease and is accounted for as long-term debt. Plug is required to pay $249 thousand per year during the term which began coinciding with the facility lease commencement date on January 1, 2023. The terms of the allowance state that interest will accrue at 4.5% per annum over a 10 year period. The debt is scheduled to mature in 2032. During the three months ended June 30, 2024 and 2023 the Company repaid $42 thousand and $40 thousand of principal related to this outstanding debt. During the six months ended June 30, 2024 and 2023 the Company repaid $82 thousand and $80 thousand of principal related to this outstanding debt. The outstanding principal and carrying value of the debt was $1.8 million as of June 30, 2024.â€‹In June 2020, the Company acquired debt as part of its acquisition of United Hydrogen Group Inc. During the three months ended June 30, 2024 and 2023, the Company repaid $0.3 million and $5.1 million of principal related to this outstanding debt. During the six months ended June 30, 2024 and 2023, the Company repaid $0.6 million and $5.4 million of principal related to this outstanding debt. The outstanding carrying value of the debt was $3.7 million as of June 30, 2024. The remaining outstanding principal on the debt was $4.9 million and the unamortized debt discount was $1.2 million, bearing varying interest rates ranging from 7.3% to 7.6%. The debt is scheduled to mature in 2026. As of June 30, 2024, the principal balance is due at each of the following dates as follows (in thousands):â€‹â€‹â€‹â€‹December 31, 2024â€‹ 2,757December 31, 2025â€‹ 1,200December 31, 2026â€‹ 900Total outstanding principal$ 4,857â€‹13 Table of Contentsâ€‹10. Convertible Senior Notesâ€‹7.00% Convertible Senior Notesâ€‹On March 20, 2024, the Company entered into separate, privately negotiated exchange agreements with certain holders of the Companyâ€™s outstanding 3.75% Convertible Senior Notes pursuant to which the Company exchanged $138.8 million in aggregate principal amount of the 3.75% Convertible Senior Notes, and accrued and unpaid interest of $1.6 million on such notes to, but excluding, March 20, 2024, for $140.4 million in aggregate principal amount of the Companyâ€™s new 7.00% Convertible Senior Notes due 2026, in each case, pursuant to the exemption from registration provided by Section 4(a)(2) under the Securities Act of 1933, as amended (the â€œSecurities Actâ€). Following the exchange, approximately $58.5 million in aggregate principal amount of the 3.75% Convertible Senior Notes remained outstanding with terms unchanged.â€‹This transaction was accounted for as an extinguishment of debt. As a result, the Company recorded a loss on extinguishment of debt of $14.0 million in the unaudited interim condensed consolidated statement of operations during the first quarter of 2024. Loss on extinguishment of debt arises from the difference between the net carrying amount of the Companyâ€™s debt and the fair value of the assets transferred to extinguish the debt.â€‹The 7.00% Convertible Senior Notes are the Companyâ€™s senior, unsecured obligations and are governed by the terms of an Indenture (the â€œIndentureâ€), dated as of March 20, 2024, entered into between the Company and Wilmington Trust, National Association, as trustee. The 7.00% Convertible Senior Notes bear cash interest at the rate of 7.00% per annum, payable semi-annually in arrears on June 1 and December 1 of each year, beginning on June 1, 2024, to holders of record at the close of business on the preceding May 15 and November 15, respectively. The 7.00% Convertible Senior Notes mature on June 1, 2026, unless earlier converted or redeemed or repurchased by the Company. â€‹The conversion rate for the 7.00% Convertible Senior Notes is initially 235.4049 shares of the Companyâ€™s common stock per $1,000 principal amount of 7.00% Convertible Senior Notes, which is equivalent to an initial conversion price of approximately $4.25 per share of common stock, which represents a premium of approximately 20% over the last reported sale price of Plugâ€™s common stock on the Nasdaq Capital Market on March 12, 2024. The conversion rate and conversion price are subject to customary adjustments upon the occurrence of certain events. Prior to the close of business on the business day immediately preceding December 1, 2025, the 7.00% Convertible Senior Notes will be convertible at the option of the holders of the 7.00% Convertible Senior Notes only upon the satisfaction of specified conditions and during certain periods. On or after December 1, 2025 until the close of business on the second scheduled trading day immediately preceding the maturity date, the 7.00% Convertible Senior Notes will be convertible at the option of the holders of the 7.00% Convertible Senior Notes at any time regardless of these conditions. Conversions of the 7.00% Convertible Senior Notes will be settled in cash, shares of the Companyâ€™s common stock, or a combination thereof, at the Companyâ€™s election. â€‹Subject to certain exceptions and subject to certain conditions, holders of the 7.00% Convertible Senior Notes may require the Company to repurchase their 7.00% Convertible Senior Notes upon the occurrence of a â€œFundamental Changeâ€ (as defined in the Indenture) prior to maturity for cash at a repurchase price equal to 100% of the principal amount of the 7.00% Convertible Senior Notes to be repurchased plus accrued and unpaid interest, if any, to, but excluding, the repurchase date. â€‹The 7.00% Convertible Senior Notes will be redeemable, in whole or in part, at the Companyâ€™s option at any time on or after June 5, 2025, at a cash redemption price equal to the principal amount of the 7.00% Convertible Senior Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, but only if the last reported sale price per share of the Companyâ€™s common stock exceeds 130% of the then-applicable conversion price then in effect for at least 20 trading days (whether or not consecutive), including at least one of the three trading days immediately preceding the date the Company sends the related redemption notice, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company sends such redemption notice.â€‹14 Table of ContentsIn certain circumstances, conversions of 7.00% Convertible Senior Notes in connection with â€œMake-Whole Fundamental Changesâ€ (as defined in the Indenture) or conversions of 7.00% Convertible Senior Notes called for redemption may result in an increase to the conversion rate, provided that the conversion rate will not exceed 282.4859 shares of the Companyâ€™s common stock per $1,000 principal amount of 7.00% Convertible Senior Notes, subject to adjustment. In such circumstance, a maximum of 39,659,890 shares of common stock, subject to adjustment, may be issued upon conversion of the 7.00% Convertible Senior Notes. There were no conversions of the 7.00% Convertible Senior Notes during the three and six months ended June 30, 2024.â€‹The 7.00% Convertible Senior Notes consisted of the following (in thousands):â€‹â€‹â€‹â€‹â€‹June 30,â€‹2024Principal amounts:â€‹â€‹ Principal$ 140,396 Unamortized debt premium, net of offering costs (1)â€‹ 10,126 Net carrying amount$ 150,522(1)Included in the unaudited interim condensed consolidated balance sheets within convertible senior notes, net and amortized over the remaining life of the notes using the effective interest rate method.â€‹The following table summarizes the total interest expense and effective interest rate related to the 7.00% Convertible Senior Notes for the three and six months ended June 30, 2024 (in thousands, except for the effective interest rate):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Three months endedâ€‹Six months endedâ€‹Â Â Â Â June 30, 2024Â Â Â Â June 30, 2024Interest expenseâ€‹$ 2,450â€‹$ 2,746Amortization of premiumâ€‹â€‹ (1,314)â€‹â€‹ (1,473)Totalâ€‹$ 1,136â€‹$ 1,273Effective interest rateâ€‹â€‹3.0%â€‹â€‹3.0%â€‹The estimated fair value of the 7.00% Convertible Senior Notes as of June 30, 2024 was approximately $126.3 million. The fair value estimation was primarily based on a quoted price in an active market.â€‹3.75% Convertible Senior Notesâ€‹On May 18, 2020, the Company issued $200.0 million in aggregate principal amount of 3.75% Convertible Senior Notes due June 1, 2025 in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. On May 29, 2020, the Company issued an additional $12.5 million in aggregate principal amount of 3.75% Convertible Senior Notes. On March 12, 2024, the Company exchanged $138.8 million in aggregate principal amount of the 3.75% Convertible Senior Notes for $140.4 million in aggregate principal amount of the Companyâ€™s new 7.00% Convertible Senior Notes due 2026. Following the exchange, approximately $58.5 million in aggregate principal amount of the 3.75% Convertible Senior Notes remained outstanding with terms unchanged. There were no conversions of the 3.75% Convertible Senior Notes during the three and six months ended June 30, 2024 and 2023.â€‹15 Table of ContentsThe 3.75% Convertible Senior Notes consisted of the following (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹June 30,â€‹December 31,â€‹2024â€‹2023Principal amounts:â€‹â€‹â€‹â€‹â€‹ Principal$ 58,462â€‹$ 197,278 Unamortized debt issuance costs (1)â€‹ (408)â€‹â€‹ (2,014) Net carrying amount$ 58,054â€‹$ 195,264(1)Included in the unaudited interim condensed consolidated balance sheets within convertible senior notes, net and amortized over the remaining life of the notes using the effective interest rate method.â€‹The following table summarizes the total interest expense and effective interest rate related to the 3.75% Convertible Senior Notes for the three and six months ended June 30, 2024 and 2023 (in thousands, except for the effective interest rate):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Three months endedâ€‹Six months endedâ€‹Â Â Â Â June 30, 2024Â Â Â Â June 30, 2023â€‹June 30, 2024Â Â Â Â June 30, 2023Interest expenseâ€‹$ 548â€‹$ 1,849â€‹$ 2,238â€‹$ 3,698Amortization of debt issuance costsâ€‹â€‹ 108â€‹â€‹ 334â€‹â€‹ 424â€‹â€‹ 665Totalâ€‹$ 656â€‹$ 2,183â€‹$ 2,662â€‹$ 4,363Effective interest rateâ€‹â€‹4.5%â€‹â€‹4.5%â€‹â€‹4.5%â€‹â€‹4.5%â€‹The estimated fair value of the 3.75% Convertible Senior Notes as of June 30, 2024 was approximately $54.5 million. The fair value estimation was primarily based on a quoted price in an active market.â€‹Capped Call â€‹In conjunction with the pricing of the 3.75% Convertible Senior Notes, the Company entered into privately negotiated capped call transactions (the â€œ3.75% Notes Capped Callâ€) with certain counterparties at a price of $16.2 million. The 3.75% Notes Capped Call covers, subject to anti-dilution adjustments, the aggregate number of shares of the Companyâ€™s common stock that underlie the initial 3.75% Convertible Senior Notes and is generally expected to reduce potential dilution to the Companyâ€™s common stock upon any conversion of the 3.75% Convertible Senior Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of the converted notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. The cap price of the 3.75% Notes Capped Call is initially $6.7560 per share, which represents a premium of approximately 60% over the last then-reported sale price of the Companyâ€™s common stock of $4.11 per share on the date of the transaction and is subject to certain adjustments under the terms of the 3.75% Notes Capped Call. The 3.75% Notes Capped Call becomes exercisable if the conversion option is exercised.The net cost incurred in connection with the 3.75% Notes Capped Call was recorded as a reduction to additional paid-in capital in the unaudited interim condensed consolidated balance sheets. The book value of the 3.75% Notes Capped Call is not remeasured.â€‹5.5% Convertible Senior Notes and Common Stock Forwardâ€‹In March 2018, the Company issued $100.0Â million in aggregate principal amount of theÂ 5.5% Convertible Senior Notes due on March 15, 2023, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act, which have been fully repaid. In connection with the issuance of the 5.5% Convertible Senior Notes, the Company entered into a forward stock purchase transaction (the â€œCommon Stock Forwardâ€), pursuant to which the Company agreed to purchase 14,397,906 shares of its common stock for settlement on or about MarchÂ 15, 2023. On May 18, 2020, the Company amended and extended the maturity of the Common Stock Forward to June 1, 2025. The number of shares of common stock that the Company will ultimately repurchase under the Common Stock Forward is subject to 16 Table of Contentscustomary anti-dilution adjustments. The Common Stock Forward is subject to early settlement or settlement with alternative consideration in the event of certain corporate transactions.â€‹The net cost incurred in connection with the Common Stock Forward of $27.5 million was recorded as an increase in treasury stock in the unaudited interim condensed consolidated balance sheets. The related shares were accounted for as a repurchase of common stock. The book value of the Common Stock Forward is not remeasured.â€‹There were no shares of common stock that settled in connection with the Common Stock Forward during the three and six months ended June 30, 2024 and 2023.â€‹11. Stockholdersâ€™ Equityâ€‹At Market Issuance Sales Agreementâ€‹On January 17, 2024, the Company entered into an At Market Issuance Sales Agreement with B. Riley, pursuant to which the Company may, from time to time, offer and sell through or to B. Riley, as sales agent or principal, shares of the Companyâ€™s common stock, having an aggregate offering price of up to $1.0 billion. As of February 23, 2024, the Company had $697.9 million remaining authorized for issuance under the ATM Agreement. On February 23, 2024, the Company amended the ATM Agreement to increase the amount of shares of the Companyâ€™s common stock available for sale under the ATM Agreement to $1.0 billion. During the three months ended June 30, 2024, the Company sold 96,812,695 shares of common stock at a weighted-average sales price of $2.80 per share for gross proceeds of $271.5 million with related issuance costs of $4.8 million. During the six months ended June 30, 2024, the Company sold 176,365,870 shares of common stock at a weighted-average sales price of $3.29 per share for gross proceeds of $580.8 million with related issuance costs of $8.7 million.â€‹Public Offering of Common Stockâ€‹On July 22, 2024, the Company sold 78,740,157 shares of its common stock at a public offering price of $2.54 per share for net proceeds of $191.0 million after deduction of the underwriting discount and related offering expenses in an underwritten public offering with Morgan Stanley & Co. LLC. The Company granted the underwriter a 30-day option to purchase up to an additional 11,811,023 shares of common stock at the public offering price, less the underwriting discount.â€‹Accumulated Other Comprehensive Lossâ€‹Accumulated other comprehensive loss is comprised of unrealized gains and losses on available-for-sale securities and foreign currency translation gains and losses. There were no reclassifications from accumulated other comprehensive loss for the three and six months ended June 30, 2024 and 2023, respectively.Â Net current-period other comprehensive income for the three months ended June 30, 2024 increased due to foreign currency translation gains of $7.1 million. Net current-period other comprehensive income for the three months ended June 30, 2023 increased due to unrealized gains on available-for-sale securities of $2.2 million and foreign currency translation gains of $3.1 million.â€‹Net current-period other comprehensive income for the six months ended June 30, 2024 increased due to foreign currency translation gains of $4.9 million. Net current-period other comprehensive income for the six months ended June 30, 2023 increased due to unrealized gains on available-for-securities of $7.5 million and foreign currency translation gains of $4.7 million.â€‹17 Table of Contents12. Warrant Transaction Agreementsâ€‹Amazon Transaction Agreement in 2022â€‹On August 24, 2022, the Company and Amazon entered into a Transaction Agreement (the â€œ2022 Amazon Transaction Agreementâ€), under which the Company concurrently issued to Amazon.com NV Investment Holdings LLC, a wholly owned subsidiary of Amazon, a warrant (the â€œ2022 Amazon Warrantâ€) to acquire up to 16,000,000 shares (the â€œ2022 Amazon Warrant Sharesâ€) of the Companyâ€™s common stock, subject to certain vesting events described below. The

Company and Amazon entered into the 2022 Amazon Transaction Agreement in connection with a concurrent commercial arrangement under which Amazon agreed to purchase hydrogen fuel from the Company through August 24, 2029.â€‹1,000,000 of the 2022 Amazon Warrant Shares vested immediately upon issuance of the 2022 Amazon Warrant. 15,000,000 of the 2022 Amazon Warrant Shares will vest in multiple tranches over the 7-year term of the 2022 Amazon Warrant based on payments made to the Company directly by Amazon or its affiliates, or indirectly through third parties, with 15,000,000 of the 2022 Amazon Warrant Shares fully vesting if Amazon-related payments of $2.1 billion are made in the aggregate. The exercise price for the first 9,000,000 2022 Amazon Warrant Shares is $22.9841 per share and the fair value on the grant date was $20.36. The exercise price for the remaining 7,000,000 2022 Amazon Warrant Shares will be an amount per share equal to 90% of the 30-day volume weighted average share price of the Companyâ€™s common stock as of the final vesting event that results in full vesting of the first 9,000,000 2022 Amazon Warrant Shares. The 2022 Amazon Warrant is exercisable through August 24, 2029. â€‹Upon the consummation of certain change of control transactions (as defined in the 2022 Amazon Warrant) prior to the vesting of at least 60% of the aggregate 2022 Amazon Warrant Shares, the 2022 Amazon Warrant will automatically vest and become exercisable with respect to an additional number of 2022 Amazon Warrant Shares such that 60% of the aggregate 2022 Amazon Warrant Shares shall have vested. If a change of control transaction is consummated after the vesting of at least 60% of the aggregate 2022 Amazon Warrant Shares, then no acceleration of vesting will occur with respect to any of the unvested 2022 Amazon Warrant Shares as a result of the transaction. The exercise price and the 2022 Amazon Warrant Shares issuable upon exercise of the 2022 Amazon Warrant are subject to customary antidilution adjustments. â€‹On August 24, 2022, 1,000,000 of the 2022 Amazon Warrant Shares associated with tranche 1 vested. The warrant fair value associated with the vested shares of tranche 1 of $20.4 million was capitalized to contract assets based on the grant date fair value and is subsequently amortized ratably as a reduction to revenue based on the Companyâ€™s estimate of revenue over the term of the agreement. As of June 30, 2024 the balance of the contract asset related to tranche 1 was $19.0 million which is recorded in contract assets in the Companyâ€™s unaudited interim condensed consolidated balance sheet. During the second quarter of 2023, all 1,000,000 of the 2022 Amazon Warrant Shares associated with tranche 2 vested. The warrant fair value associated with the vested shares of tranche 2 was $20.4 million and was determined on the grant date of August 24, 2022. As of June 30, 2024 the balance of the contract asset related to tranche 2 was $19.0 million. Tranche 3 will vest over the next $1.0 billion of collections from Amazon and its affiliates. The grant date fair value of tranche 3 will also be amortized ratably as a reduction to revenue based on the Companyâ€™s estimate of revenue over the term of the agreement. As of June 30, 2024 the balance of the contract asset related to tranche 3 was $1.5 million. Because the exercise price has yet to be determined, the fair value of tranche 4 will be remeasured at each reporting period end and amortized ratably as a reduction to revenue based on the Companyâ€™s estimate of revenue over the term of the agreement.â€‹As of June 30, 2024 and December 31, 2023, 2,500,000 and 2,000,000 of the 2022 Amazon Warrant Shares had vested, respectively, and the 2022 Amazon Warrant had not been exercised. During the three and six months ended June 30, 2024 and 2023, there were no exercises with respect to the 2022 Amazon Warrant. The total amount of provision for common stock warrants recorded as a reduction of revenue for the 2022 Amazon Warrant during the three months ended June 30, 2024 and 2023 was $1.7 million and $1.5 million, respectively. The total amount of provision for common stock warrants recorded as a reduction of revenue for the 2022 Amazon Warrant during the six months ended June 30, 2024 and 2023 was $2.4 million and $2.6 million, respectively.â€‹18 Table of ContentsThe assumptions used to calculate the valuations of the 2022 Amazon Warrant as of August 24, 2022 and June 30, 2024 are as follows:â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Tranches 1-3Â Â Â Tranche 4â€‹â€‹August 24, 2022â€‹June 30, 2024Risk-free interest rateâ€‹3.15%â€‹4.24%Volatilityâ€‹75.00%â€‹90.00%Expected average term (years)â€‹7.00â€‹1.15Exercise priceâ€‹$22.98 â€‹$2.10 Stock priceâ€‹$20.36 â€‹$2.33 â€‹Amazon Transaction Agreement in 2017â€‹On April 4, 2017, the Company and Amazon entered into a Transaction Agreement (the â€œ2017 Amazon Transaction Agreementâ€), pursuant to which the Company agreed to issue to Amazon.com NV Investment Holdings LLC, a warrant (the â€œ2017 Amazon Warrantâ€) to acquire up to 55,286,696 shares (the â€œ2017 Amazon Warrant Sharesâ€), subject to certain vesting events. The Company and Amazon entered into the 2017 Amazon Transaction Agreement in connection with existing commercial agreements between the Company and Amazon with respect to the deployment of the Companyâ€™s GenKey fuel cell technology at Amazon distribution centers. The vesting of the 2017 Amazon Warrant Shares was conditioned upon payments made by Amazon or its affiliates (directly or indirectly through third parties) pursuant to existing commercial agreements. On December 31, 2020, the Company waived the remaining vesting conditions under the 2017 Amazon Warrant, which resulted in the immediate vesting of all of the third tranche of the 2017 Amazon Warrant Shares.â€‹As of June 30, 2024 and 2023, all 55,286,696 of the 2017 Amazon Warrant Shares had vested and the 2017 Amazon Warrant was exercised with respect to 34,917,912 shares of the Companyâ€™s common stock. During the three and six months ended June 30, 2024 and 2023, there were no exercises with respect to the 2017 Amazon Warrant. The total amount of provision for common stock warrants recorded as a reduction of revenue for the 2017 Amazon Warrant during the three months ended June 30, 2024 and 2023 was $0.1 million and $0.1 million, respectively. The total amount of provision for common stock warrants recorded as a reduction of revenue for the 2017 Amazon Warrant during the six months ended June 30, 2024 and 2023 was $0.2 million and $0.2 million, respectively.â€‹Walmart Transaction Agreementâ€‹On July 20, 2017, the Company and Walmart entered into a Transaction Agreement (the â€œWalmart Transaction Agreementâ€), pursuant to which the Company agreed to issue to Walmart a warrant (the â€œWalmart Warrantâ€) to acquire up to 55,286,696 shares of the Companyâ€™s common stock, subject to certain vesting events (the â€œWalmart Warrant Sharesâ€). The Company and Walmart entered into the Walmart Transaction Agreement in connection with existing commercial agreements between the Company and Walmart with respect to the deployment of the Companyâ€™s GenKey fuel cell technology across various Walmart distribution centers. The existing commercial agreements contemplate, but do not guarantee, future purchase orders for the Companyâ€™s fuel cell technology. The vesting of the warrant shares was conditioned upon payments made by Walmart or its affiliates (directly or indirectly through third parties) pursuant to transactions entered into after January 1, 2017 under existing commercial agreements.â€‹The exercise price for the first and second tranches of Walmart Warrant Shares was $2.1231 per share. After Walmart has made payments to the Company totaling $200.0 million, the third tranche of 20,368,784 Walmart Warrant Shares will vest in eight installments of 2,546,098 Walmart Warrant Shares each time Walmart or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $400.0 million in the aggregate. The exercise price of the third tranche of the Walmart Warrant Shares is $6.28 per share, which was determined pursuant to the terms of the Walmart Warrant as an amount equal to 90% of the 30-day volume weighted average share price of the Companyâ€™s common stock as of October 30, 2023, the final vesting date of the second tranche of the Walmart Warrant Shares. The Walmart Warrant is exercisable through July 20, 2027. The Walmart Warrant provides for net share settlement that, if elected by the holder, will reduce the number of 19 Table of Contentsshares issued upon exercise to reflect net settlement of the exercise price. The Walmart Warrant provides for certain adjustments that may be made to the exercise price and the number of shares of common stock issuable upon exercise due to customary anti-dilution provisions based on future events. The Walmart Warrant is classified as an equity instrument. As of June 30, 2024, the balance of the contract asset related to the Walmart Warrant was $5.4 million.â€‹As of June 30, 2024 and December 31, 2023, 37,464,010 and 34,917,912 of the Walmart Warrant Shares had vested, respectively, and the Walmart Warrant was exercised with respect to 13,094,217 shares of the Companyâ€™s common stock. During the three and six months ended June 30, 2024 and 2023, there were no exercises with respect to the Walmart Warrant. The total amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the three months ended June 30, 2024 was $4.0 million compared to a negative provision for common stock warrants recorded as an addition to revenue of $1.5 million for the three months ended June 30, 2023. The total amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the six months ended June 30, 2024 and 2023 was $7.7 million and $11.5 million, respectively.â€‹13. Revenueâ€‹Disaggregation of revenue â€‹The following table provides information about disaggregation of revenue (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Major products/services linesâ€‹Three months endedâ€‹Six months endedâ€‹â€‹June 30,â€‹June 30,â€‹â€‹2024â€‹2023â€‹2024â€‹2023Sales of fuel cell systemsâ€‹$ 13,148â€‹$ 72,181â€‹$ 32,149â€‹$ 101,033Sales of hydrogen infrastructureâ€‹â€‹ 13,235â€‹â€‹ 58,647â€‹â€‹ 25,531â€‹â€‹ 107,515Sales of electrolyzersâ€‹â€‹ 15,029â€‹â€‹ 6,966â€‹â€‹ 16,381â€‹â€‹ 46,998Sales of engineered equipmentâ€‹â€‹ 4,406â€‹â€‹ 8,819â€‹â€‹ 8,622â€‹â€‹ 16,572Services performed on fuel cell systems and related infrastructureâ€‹â€‹ 13,034â€‹â€‹ 8,701â€‹â€‹ 26,057â€‹â€‹ 17,798Power purchase agreementsâ€‹â€‹ 19,674â€‹â€‹ 16,130â€‹â€‹ 37,978â€‹â€‹ 24,067Fuel delivered to customers and related equipmentâ€‹â€‹ 29,887â€‹â€‹ 17,878â€‹â€‹ 48,173â€‹â€‹ 28,020Sales of cryogenic equipment and liquefiersâ€‹â€‹ 30,970â€‹â€‹ 69,673â€‹â€‹ 62,400â€‹â€‹ 126,262Otherâ€‹â€‹ 3,967â€‹â€‹ 1,187â€‹â€‹ 6,323â€‹â€‹ 2,203 Net revenueâ€‹$ 143,350â€‹$ 260,182â€‹$ 263,614â€‹$ 470,468â€‹Contract balancesâ€‹The following table provides information about receivables, contract assets and deferred revenue and contract liabilities from contracts with customers (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹June 30, â€‹December 31, â€‹â€‹2024â€‹2023Accounts receivable â€‹$ 189,863â€‹$ 243,811Contract assetsâ€‹â€‹ 162,431â€‹â€‹ 155,989Deferred revenue and contract liabilitiesâ€‹â€‹ 245,846â€‹â€‹ 288,302â€‹Contract assets primarily relate to contracts for which revenue is recognized on a straight-line basis; however, billings escalate over the life of a contract. Contract assets also include amounts recognized as revenue in advance of billings to customers, which are dependent upon the satisfaction of another performance obligation. These amounts are included in contract assets on the accompanying unaudited interim condensed consolidated balance sheets.â€‹The deferred revenue and contract liabilities relate to the advance consideration received from customers for services that will be recognized over time (primarily fuel cell and related infrastructure services and electrolyzer systems 20 Table of Contentsand solutions). Deferred revenue and contract liabilities also include advance consideration received from customers prior to delivery of products. These amounts are included within deferred revenue and other contract liabilities on the unaudited interim condensed consolidated balance sheets.â€‹Significant changes in the contract assets and the deferred revenue and contract liabilities balances during the period are as follows (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Contract assetsâ€‹Six months endedâ€‹Year endedâ€‹â€‹June 30, 2024â€‹December 31, 2023Transferred to receivables from contract assets recognized at the beginning of the periodâ€‹$ (12,959)â€‹$ (94,860)Change in contract assets related to warrantsâ€‹â€‹ 3,766â€‹â€‹ 14,260Impairmentâ€‹â€‹ â€”â€‹â€‹ (2,375)Revenue recognized and not billed as of the end of the periodâ€‹â€‹ 15,635â€‹â€‹ 134,677 Net change in contract assetsâ€‹$ 6,442â€‹$ 51,702â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Deferred revenue and contract liabilitiesâ€‹Six months endedâ€‹Year endedâ€‹â€‹June 30, 2024â€‹December 31, 2023Increases due to customer billings, net of amounts recognized as revenue during the periodâ€‹$ 21,195â€‹$ 151,965Change in contract liabilities related to warrantsâ€‹â€‹ 219â€‹â€‹ 440Revenue recognized that was included in the contract liability balance as of the beginning of the periodâ€‹â€‹ (63,870)â€‹â€‹ (94,001) Net change in deferred revenue and contract liabilitiesâ€‹$ (42,456)â€‹$ 58,404â€‹Estimated future revenueâ€‹The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period, including provision for common stock warrants (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹June 30, â€‹Expected recognitionâ€‹â€‹2024â€‹period (years)Sales of fuel cell systemsâ€‹$ 39,989â€‹â€‹1 - 2Sales of hydrogen installations and other infrastructureâ€‹â€‹ 30,317â€‹â€‹1Sales of electrolyzersâ€‹â€‹ 320,839â€‹â€‹1 - 2Sales of engineered equipmentâ€‹â€‹ 11,186â€‹â€‹1Services performed on fuel cell systems and related infrastructureâ€‹â€‹ 134,469â€‹â€‹5 - 10Power purchase agreementsâ€‹â€‹ 401,874â€‹â€‹5 - 10Fuel delivered to customers and related equipmentâ€‹â€‹ 91,984â€‹â€‹5 - 10Sales of cryogenic equipment and otherâ€‹â€‹ 71,944â€‹â€‹1 Total estimated future revenueâ€‹$ 1,102,602â€‹â€‹â€‹â€‹â€‹14. Income Taxesâ€‹The Company recorded $0.4 million of income tax benefit and $0.9 million of income tax benefit for the three months ended June 30, 2024 and 2023, respectively. The Company recorded $0.2 million of income tax benefit and $2.2 million of income tax benefit for the six months ended June 30, 2024 and 2023, respectively. The income tax benefit for the six months ended June 30, 2024 was due to an incremental change to the valuation allowance recorded in foreign jurisdictions. The Company has not changed its overall conclusion with respect to the need for a valuation allowance 21 Table of Contentsagainst its domestic net deferred tax assets, which remain fully reserved, and its valuation allowances recorded in foreign jurisdictions.â€‹The domestic net deferred tax asset generated from the Companyâ€™s net operating loss has been offset by a full valuation allowance because it is more likely than not that the tax benefits of the net operating loss carryforward will not be realized. The Company recognizes accrued interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense.â€‹The Organization for Economic Co-operation and Development Inclusive Framework on Base Erosion and Profit Shifting has proposed a global minimum corporate tax rate of 15% on multi-national corporations, commonly referred to as the Pillar Two rules that has been agreed upon in principle by over 140 countries. Numerous foreign countries have enacted legislation to implement the Pillar Two rules, effective beginning January 1, 2024, or are expected to enact similar legislation. As of June 30, 2024, the Company did not meet the consolidated revenue threshold and is not subject to the GloBE Rules under Pillar Two. The Company will continue to monitor the implementation of rules in the jurisdictions in which it operates.â€‹15. Fair Value Measurementsâ€‹The Company records the fair value of assets and liabilities in accordance with ASC 820, Fair Value Measurement (â€œASC 820â€). ASC 820 defines fair value as the price received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date and in the principal or most advantageous market for that asset or liability. The fair value should be calculated based on assumptions that market participants would use in pricing the asset or liability, not on assumptions specific to the entity.â€‹In addition to defining fair value, ASC 820 expands the disclosure requirements around fair value and establishes a fair value hierarchy for valuation inputs. The hierarchy prioritizes the inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of the three levels, which is determined by the lowest level input that is significant to the fair value measurement in its entirety. â€‹These levels are:â—Level 1 â€” quoted prices (unadjusted) in active markets for identical assets or liabilities.â—Level 2 â€” quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.â—Level 3 â€” unobservable inputs reflecting managementâ€™s own assumptions about the inputs used in pricing the asset or liability at fair value.â€‹There were no transfers between Level 1, Level 2, or Level 3 during the six months ended June 30, 2024. Financial instruments not recorded at fair value on a recurring basis include equity method investments that have not been remeasured or impaired in the current period, such as our investments in HyVia, AccionaPlug, SK Plug Hyverse and Clean H2 Infra Fund.â€‹Assets and liabilities measured at fair value on a recurring basis are summarized below (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹As of June 30, 2024â€‹â€‹Carrying â€‹Fair â€‹Fair Value Measurementsâ€‹â€‹Amountâ€‹Valueâ€‹Level 1â€‹Level 2â€‹Level 3Liabilitiesâ€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Contingent consideration$ 90,620$ 90,620$ â€”$ â€”$ 90,620â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹As of December 31, 2023â€‹â€‹Carrying â€‹Fair â€‹Fair Value Measurementsâ€‹â€‹Amountâ€‹Valueâ€‹Level 1â€‹Level 2â€‹Level 3Liabilitiesâ€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Contingent considerationâ€‹ 126,216â€‹ 126,216â€‹ â€”â€‹ â€”â€‹ 126,216â€‹22 Table of ContentsThe liabilities measured at fair value on a recurring basis that have unobservable inputs and are therefore categorized as level 3 are related to contingent consideration. The fair value as of June 30, 2024 of $90.6 million is comprised of contingent consideration related to the Joule Processing LLC (â€œJouleâ€) acquisition in 2022 and the Frames Holding B.V. (â€œFramesâ€) acquisition in 2021.â€‹In connection with the Joule acquisition, the Company initially recorded on its unaudited interim condensed consolidated balance sheet a liability of $41.7 million representing the fair value of contingent consideration payable. The fair value of this contingent consideration was $61.4 million and $75.5 million as of June 30, 2024 and December 31, 2023, respectively. The decrease compared to the year ended December 31, 2023 was primarily due to payments that reduced the fair value of the liability by $10.0 million during the first quarter of 2024. A decrease of $4.1 million was recorded in change in fair value of contingent consideration in the unaudited interim condensed consolidated statement of operations for the six months ended June 30, 2024, partially offset by an increase of $3.4 million for the three months ended June 30, 2024.â€‹In connection with the Frames acquisition, the Company initially recorded on its unaudited interim condensed consolidated balance sheet a liability of $29.1 million representing the fair value of contingent consideration payable. The fair value of this contingent consideration was $29.2 million and $31.8 million as of June 30, 2024 and December 31, 2023, respectively. The decrease compared to the year ended December 31, 2023 was primarily due to a decrease of $1.6 million recorded in change in fair value of contingent consideration in the unaudited interim condensed consolidated statement of operations for the six months ended June 30, 2024, partially offset by an increase of $0.9 million for the three months ended June 30, 2024. A further decrease of $0.3 million and $1.0 million for the three and six months ended June 30, 2024 was due to foreign currency translation gains.â€‹In connection with the United Hydrogen Group Inc. (â€œUHGâ€) acquisition, the Company initially recorded on its unaudited interim condensed consolidated balance sheet a liability of $1.1 million representing the fair value of contingent consideration payable. The fair value of this contingent consideration was $0 and $0.9 million as of June 30, 2024 and December 31, 2023, respectively. The decrease of $0.9 million was due to payments that reduced the fair value of the liability by $1.0 million during the three months ended June 30, 2024. Partially offsetting this decrease was an increase of $0 and $0.1 million recorded in change in fair value of contingent consideration in the unaudited interim condensed consolidated statement of operations during the three and six months ended June 30, 2024, respectively. The $1.0 million payment made during the second quarter of 2024 settled the remaining earn-out obligation.â€‹In connection with the Giner acquisition, the Company initially recorded on its unaudited interim condensed consolidated balance sheet a liability of $16.0 million representing the fair value of contingent consideration payable. The fair value of this contingent consideration was $0 million and $18.0 million as of June 30, 2024 and December 31, 2023, respectively. The decrease of $18.0 million was due to payments that reduced the fair value of the liability by $18.2 million during the three months ended June 30, 2024. Furthermore, an increase of $0.2 million was recorded in change in fair value of contingent consideration in the unaudited interim condensed consolidated statement of operations for the six months ended June 30, 2024, partially offset by a decrease of $0.5 million for the three months ended June 30, 2024. The $18.2 million payment during the second quarter of 2024 was paid in common stock and warrants and settled the remaining obligation of the earn-out. As part of the $18.2 million settlement of Ginerâ€™s earn-out obligation on May 24, 2024, the Company issued warrants to purchase the Companyâ€™s shares of common stock and the Company filed a prospectus supplement registering for resale up to 3,461,371 shares of the Companyâ€™s common stock issuable upon exercise of the warrants that were issued in connection with such earn-out obligation. The warrants have not been exercised as of June 30, 2024.â€‹In the unaudited interim condensed consolidated balance sheets, contingent consideration is recorded in the contingent consideration, loss accrual for service contracts, and other current liabilities financial statement line item, and was comprised of the following unobservable inputs as of June 30, 2024:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Financial InstrumentÂ Â Â Â Fair ValueValuation TechniqueUnobservable InputRange (weighted average)Contingent considerationâ€‹$ 90,620Scenario based methodCredit spread13.51%â€‹â€‹â€‹â€‹â€‹Discount rate17.91% - 18.41%â€‹â€‹â€‹ 90,620â€‹â€‹â€‹23 Table of Contentsâ€‹In the unaudited interim condensed consolidated balance sheets, contingent consideration is recorded in the contingent consideration, loss accrual for service contracts, and other current liabilities financial statement line item, and was comprised of the following unobservable inputs as of December 31, 2023:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Financial InstrumentÂ Â Â Â Fair ValueValuation TechniqueUnobservable InputRange (weighted average)Contingent considerationâ€‹$ 126,216Scenario based methodCredit spread13.61%â€‹â€‹â€‹â€‹â€‹Discount rate17.71% - 19.06%â€‹â€‹â€‹ 126,216â€‹â€‹â€‹â€‹The change in the carrying amount of Level 3 liabilities during the six months ended June 30, 2024 was as follows (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â Six months endedâ€‹â€‹June 30, 2024Beginning balance as of December 31, 2023â€‹$ 126,216Cash paymentsâ€‹â€‹ (10,000)Change in fair value of contingent considerationâ€‹â€‹ (9,200)Foreign currency translation adjustmentâ€‹Â (690)Ending balance as of March 31, 2024â€‹$ 106,326Cash paymentsâ€‹â€‹ (1,000)Payment settled in common stock and warrantsâ€‹â€‹ (18,241)Change in fair value of contingent considerationâ€‹â€‹ 3,768Foreign currency translation adjustmentâ€‹Â (233)Ending balance as of June 30, 2024â€‹$ 90,620â€‹â€‹16. Investmentsâ€‹Equity Method Investmentsâ€‹As of June 30, 2024 and December 31, 2023, the Company accounted for the following investments in the investeeâ€™s common stock under the equity method, which are included in the investments in non-consolidated entities and non-marketable equity securities on the unaudited interim condensed consolidated balance sheets (amounts in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹As of June 30, 2024â€‹As of December 31, 2023â€‹Â Â Â Â Formationâ€‹Common StockÂ Â Â Carryingâ€‹Common StockÂ Â Â CarryingInvesteeâ€‹Dateâ€‹Ownership %â€‹Valueâ€‹Ownership %â€‹ValueHyViaâ€‹Q2 2021â€‹50%â€‹$ 10,445â€‹50%â€‹$ (2,068)AccionaPlugâ€‹Q4 2021â€‹50%â€‹â€‹3,816â€‹50%â€‹â€‹3,198Clean H2 Infra Fundâ€‹Q4 2021â€‹5%â€‹â€‹26,510â€‹5%â€‹â€‹13,357SK Plug Hyverseâ€‹Q1 2022â€‹49%â€‹â€‹53,424â€‹49%â€‹â€‹41,609â€‹â€‹â€‹â€‹â€‹â€‹$94,195â€‹â€‹â€‹$56,096â€‹As of December 31, 2023, the Companyâ€™s investment in HyVia was negative due to historical losses. The Company is committed to fund its share of losses of the joint venture and, therefore, continued to record losses as incurred. The negative equity investment as of December 31, 2023 was recorded on the unaudited interim condensed consolidated balance sheet to the contingent consideration, loss accrual for service contracts, and other liabilities financial statement line item.â€‹During the three months ended June 30, 2024, the Company contributed approximately $16.1 million, $0, $16.0 million and $9.7 million to HyVia, AccionaPlug, SK Plug Hyverse and Clean H2 Infra Fund, respectively. During the three months ended June 30, 2023, the Company contributed approximately $0, $0.8 million, $0 and $3.3 million to HyVia, AccionaPlug, SK Plug Hyverse and Clean H2 Infra Fund, respectively.â€‹24 Table of ContentsDuring the six months ended June 30, 2024, the Company contributed approximately $32.3 million, $1.7 million, $16.0 million and $13.7 million to HyVia, AccionaPlug, SK Plug Hyverse and Clean H2 Infra Fund, respectively. During the six months ended June 30, 2023, the Company contributed approximately $22.3 million, $0.8 million, $17.8 million and $3.3 million to HyVia, AccionaPlug, SK Plug Hyverse and Clean H2 Infra Fund, respectively.â€‹The Companyâ€™s capital commitments related to its equity method investments as of June 30, 2024 includes $23.7 million to be made during the remainder of 2024.â€‹17. Operating and Finance Lease Liabilitiesâ€‹As of June 30, 2024, the Company had operating leases, as lessee, primarily associated with sale/leaseback transactions that are partially secured by restricted cash and security deposits (see also Note 19, â€œCommitments and Contingenciesâ€) as summarized below. These leases expire over the next one to seven years. Minimum rent payments under operating leases are recognized on a straight-line basis over the term of the lease.â€‹Leases contain termination clauses with associated penalties, the amount of which cause the likelihood of cancellation to be remote. At the end of the lease term, the leased assets may be returned to the lessor by the Company, the Company may negotiate with the lessor to purchase the assets at fair market value, or the Company may negotiate with the lessor to renew the lease at market rental rates. No residual value guarantees are contained in the leases. No financial covenants are contained within the lease; however, the lease contains customary operational covenants such as the requirement that the Company properly maintain the leased assets and carry appropriate insurance. The leases include credit support in the form of either cash, collateral or letters of credit. See Note 19, â€œCommitments and Contingenciesâ€, for a description of cash held as security associated with the leases.â€‹The Company has finance leases associated with its property and equipment in Latham, New York and at fueling customer locations.â€‹Future minimum lease payments under operating and finance leases (with initial or remaining lease terms in excess of one year) as of June 30, 2024 were as follows (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â FinanceÂ Â Â Total â€‹Â Â Â Operating Leaseâ€‹Leaseâ€‹Leaseâ€‹â€‹Liabilityâ€‹Liabilityâ€‹LiabilitiesRemainder of 2024â€‹$ 50,083â€‹$ 6,041â€‹$ 56,1242025â€‹â€‹ 95,589â€‹Â 15,000â€‹â€‹ 110,5892026â€‹â€‹ 86,743â€‹Â 12,142â€‹â€‹ 98,8852027â€‹â€‹ 73,066â€‹Â 8,260â€‹â€‹ 81,3262028â€‹â€‹ 50,655â€‹â€‹ 1,931â€‹â€‹ 52,5862029 and thereafter â€‹â€‹ 149,565â€‹â€‹ 3,300â€‹â€‹ 152,865TotalÂ futureÂ minimumÂ payments â€‹â€‹ 505,701â€‹Â 46,674â€‹â€‹ 552,375Less imputed interestâ€‹â€‹ (175,045)â€‹â€‹ (5,942)â€‹â€‹ (180,987)Total â€‹$ 330,656â€‹$ 40,732â€‹$ 371,388â€‹Rental expense for all operating leases was $25.9 million and $23.3 million for the three months ended June 30, 2024 and 2023, respectively. Rental expense for all operating leases was $52.2 million and $45.2 million for the six months ended June 30, 2024 and 2023, respectively.â€‹As of both June 30, 2024 and December 31, 2023, security deposits associated with sale/leaseback transactions were $7.4 million, and were included in other assets in the unaudited interim condensed consolidated balance sheets.â€‹25 Table of ContentsOther information related to the operating leases are presented in the following table:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Six months endedÂ Â Six months endedâ€‹June 30, 2024â€‹June 30, 2023Cash payments - operating cash flows (in thousands)$ 49,932â€‹$ 43,304Weighted average remaining lease term (years)â€‹7.15â€‹â€‹6.16Weighted average discount rateâ€‹11.3%â€‹â€‹11.2%â€‹Finance lease costs include amortization of the right of use assets (i.e., depreciation expense) and interest on lease liabilities (i.e., interest and other expense, net in the unaudited interim condensed consolidated statement of operations) and were $1.8 million and $1.9 million for the three months ended June 30, 2024, and 2023, respectively, and were $3.7 million and $3.7 million for the six months ended June 30, 2024, and 2023, respectively.â€‹As of June 30, 2024 and December 31, 2023, the right of use assets associated with finance leases, net was $54.7 million and $57.3 million, respectively. The accumulated depreciation for these right of use assets was $11.2 million and $9.0 million at June 30, 2024 and December 31, 2023, respectively.â€‹Other information related to the finance leases are presented in the following table:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Six months endedÂ Â Â Six months endedâ€‹June 30, 2024â€‹June 30, 2023Cash payments - operating cash flows (in thousands)$ 1,488â€‹$ 1,587Cash payments - financing cash flows (in thousands)$ 4,586â€‹$ 4,153Weighted average remaining lease term (years)â€‹3.47â€‹â€‹3.47Weighted average discount rateâ€‹6.8%â€‹â€‹6.8%â€‹â€‹18. Finance Obligationâ€‹The Company has sold future services to be performed associated with certain sale/leaseback transactions and recorded the balance as a finance obligation. The outstanding balance of this obligation as of June 30, 2024 was $314.8 million, $76.7 million and $238.1 million of which was classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheet. The outstanding balance of this obligation at December 31, 2023 was $350.8Â million, $74.0Â million and $276.8Â million of which was classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheet. The amount is amortized using the effective interest method. Interest expense recorded related to finance obligations for the three months ended June 30, 2024 and 2023 was $9.4 million and $9.8 million, respectively. Interest expense recorded related to finance obligations for the six months ended June 30, 2024 and 2023 was $19.4 million and $19.0 million, respectively.â€‹In prior periods, the Company entered into sale/leaseback transactions that were accounted for as financing transactions and reported as part of finance obligations. The outstanding balance of finance obligations related to sale/leaseback transactions as of June 30, 2024 was $15.9 million, $8.9 million and $7.0 million of which was classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheet. The outstanding balance of this obligation at December 31, 2023 was $17.6 million, $10.0 million and $7.6 million of which was classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheet.â€‹26 Table of ContentsFuture minimum payments under finance obligations notes above as of June 30, 2024 were as follows (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Total â€‹â€‹Sale of Futureâ€‹Sale/Leasebackâ€‹Financeâ€‹Â Â Â Â Revenue - DebtÂ Â Â Â FinancingsÂ Â Â Â ObligationsRemainder of 2024â€‹$ 54,902â€‹$ 8,715â€‹$ 63,6172025â€‹â€‹ 104,547â€‹â€‹ 2,229â€‹â€‹ 106,7762026â€‹â€‹ 87,824â€‹â€‹ 2,229â€‹â€‹ 90,0532027â€‹â€‹ 71,253â€‹â€‹ 2,229â€‹â€‹ 73,4822028â€‹â€‹ 51,188â€‹â€‹ 2,015â€‹â€‹ 53,2032029 and thereafter â€‹â€‹ 25,504â€‹â€‹ 1,131â€‹â€‹ 26,635TotalÂ futureÂ minimumÂ payments â€‹â€‹ 395,218â€‹â€‹ 18,548â€‹â€‹ 413,766Less imputed interestâ€‹â€‹ (80,437)â€‹â€‹ (2,676)â€‹â€‹ (83,113)Total â€‹$ 314,781â€‹$ 15,872â€‹$ 330,653â€‹Other information related to the above finance obligations are presented in the following table:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Six months ended â€‹Six months ended â€‹June 30, 2024â€‹June 30, 2023Cash payments (in thousands)$ 57,319â€‹$ 49,256Weighted average remaining term (years)â€‹4.06â€‹â€‹4.78Weighted average discount rateâ€‹11.3%â€‹â€‹11.2%â€‹The fair value of the Companyâ€™s total finance obligations approximated their carrying value as of June 30, 2024 and December 31, 2023.â€‹â€‹19. Commitments and Contingenciesâ€‹Restricted Cash â€‹In connection with certain of the above noted sale/leaseback agreements, cash of $525.6 million and $573.5 million was required to be restricted as security as of June 30, 2024 and December 31, 2023, respectively, which restricted cash will be released over the lease term. As of June 30, 2024 and December 31, 2023, the Company also had certain letters of credit backed by security deposits totaling $340.7 million and $370.7 million, respectively, of which $305.6 million and $340.0 million are security for the above noted sale/leaseback agreements, respectively, and $35.1 million and $30.7 million are customs related letters of credit, respectively. â€‹As of June 30, 2024 and December 31, 2023, the Company had $77.1 million and $76.8 million held in escrow related to the construction of certain hydrogen production plants, respectively.â€‹The Company also had $0.1 million and $1.2 million of consideration held by our paying agent in connection with each of the Joule and CIS acquisitions, respectively, reported as restricted cash as of June 30, 2024, with a corresponding accrued liability on the Companyâ€™s unaudited interim condensed consolidated balance sheet. Additionally, the Company had $11.8 million and $11.7 million in restricted cash as collateral resulting from the Frames acquisition as of June 30, 2024 and December 31, 2023, respectively.â€‹Litigationâ€‹Legal matters are defended and handled in the ordinary course of business. The outcome of any such matters, regardless of the merits, is inherently uncertain; therefore, assessing the likelihood of loss and any estimated damages is difficult and subject to considerable judgment. We describe below those legal matters for which a material loss is either (i) possible but not probable, and/or (ii) not reasonably estimable at this time. Liabilities for loss contingencies arising 27 Table of Contentsfrom claims, assessments, litigation, fines, and penalties and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred. The Company has not recorded any accruals related to any legal matters.â€‹Securities Litigation and Related Stockholder Derivative Litigationâ€‹2021 Securities Action and Related Derivative Litigationâ€‹Two actions are pending in which alleged stockholders of the Company assert claims derivatively, on the Companyâ€™s behalf, based on allegations and claims that had been asserted in a putative securities class action, In re Plug Power, Inc. Securities Litigation, No. 1:21-cv-2004 (S.D.N.Y. (the â€œ2021 Securities Actionâ€). In an opinion and order entered in August 2023, the district court dismissed the 2021 Securities Action with prejudice, and the plaintiffs in that action did not appeal.â€‹A consolidated stockholder derivative action relating to the claims and allegations in the 2021 Securities Action is pending in the Court of Chancery for the State of Delaware, styled In re Plug Power Inc. Stockholder Derivative Litigation, Cons. C.A. No. 2022-0569-KSJM (Del. Ch.). By stipulation and order, the consolidated action was stayed until motions to dismiss were finally resolved in the 2021 Securities Action. On MarchÂ 8, 2024, the alleged stockholder plaintiffs filed a consolidated amended complaint in which claims have been asserted against our officers Andrew J. Marsh, Paul B. Middleton, Gerard L. Conway, Jr., and Keith Schmid, and against our current or former directors George C. McNamee, Gary K. Willis, Maureen O. Helmer, Johannes M. Roth, Gregory L. Kenausis, Lucas Schneider, and Jonathan Silver. The Company is named as nominal defendant. Based on allegations in the first and second amended complaints in the 2021 Securities Action, the plaintiffs assert claims against the individual defendants for alleged breaches of fiduciary duty, disgorgement, and unjust enrichment based on alleged transactions in the Companyâ€™s securities while allegedly in possession of material non-public information concerning (i) the Companyâ€™s financial accounting prior to the announcement that the Company would need to restate certain financial statements and (ii) the potential amendment and termination of a warrant agreement between the Company and a significant customer. On May 10, 2024, the Company, as nominal defendant, and all of the individual defendants filed a motion to dismiss (a) for failure to make a pre-suit demand or to adequately allege demand futility and (b) by the individual defendants, for failure to state a claim. Oral argument has been scheduled on the motion to be held on September 20, 2024.â€‹On May 13, 2021, alleged stockholder Romario St. Clair filed a complaint in the Supreme Court of the State of New York, County of New York, asserting claims derivatively on behalf of the Company against certain current or former directors and officers of the Company. The action is styled St. Clair v. Plug Power Inc. et al., Index No. 653167/2021 (N.Y. Sup. Ct., N.Y. Cty.). By stipulation and order, the action was stayed until motions to dismiss were finally resolved in the 2021 Securities Action. On MarchÂ 25, 2024, the alleged stockholder plaintiff filed an amended complaint in which claims have been asserted against Mr. Marsh, Mr. Middleton, Mr. McNamee, Mr. Willis, Ms. Helmer, Mr. Kenausis, Mr. Roth, Mr. Schneider, and Mr. Silver, with the Company named as nominal defendant. As had been alleged in the 2021 Securities Action, the amended complaint alleges that the individual defendants knew or consciously disregarded that the Company was experiencing known but undisclosed material weaknesses in its internal controls over financial reporting and had made certain accounting errors later corrected in the Companyâ€™s financial restatement in 2021. The complaint further alleges that Mr. Marsh and Mr. Middleton engaged in transactions in the Companyâ€™s securities before these issues were disclosed. The plaintiff asserts claims against the individual defendants, derivatively on behalf of the Company, for breach of fiduciary and unjust enrichment. On July 12, 2024, the parties filed a stipulation of discontinuance of the action without prejudice, which the Court approved in an order entered on the same date.â€‹2023 Securities Action and Related Derivative LitigationA consolidated action is pending in the United States District Court for the District of Delaware asserting claims under the federal securities laws against the Company and certain of its senior officers on behalf of a putative class of purchasers of the Companyâ€™s securities, styled In re Plug Power, Inc. Securities Litigation, No. 1:23-cv-00576-MN (the â€œ2023 Securities Actionâ€). The plaintiffs filed a consolidated complaint on September 28, 2023, in which they assert claims under the federal securities laws against the Company and four of its senior officers, Mr. Marsh, Mr. Middleton, Sanjay 28 Table of ContentsShrestha, and former officer David Mindnich, on behalf of a putative class of purchasers of Plug Power common stock between January 19, 2022 and March 1, 2023. The complaint alleges that the defendants made â€œmaterially false and/or misleading statementsâ€ about the Companyâ€™s business and operations, including that â€œthe Company was unable to effectively manage its supply chain and product manufacturing, resulting in reduced revenues and margins, increased inventory levels, and several large deals being delayed until at least 2023, among other issues The defendants filed a motion to dismiss the complaint on December 14, 2023, and briefing was completed in March 2024. All proceedings are stayed pending resolution of the motion to dismiss.â€‹Beginning on September 13, 2023, three separate actions were filed in the U.S. District Court for the District of Delaware and in the U.S. District Court for the Southern District of New York asserting claims derivatively and on behalf of the Company against certain former and current Company officers and directors based on the claims asserted in the 2023 Securities Action. Those cases have been consolidated in the District of Delaware under the caption In re Plug Power, Inc. Stockholder Deriv. Litig., No. 1:23-cv-01007-MN (D. Del.). The defendants named in the constituent complaint were Mr. Marsh, Mr. Middleton, Mr. Mindnich, Martin Hull, Ms. Helmer, Mr. Kenausis, Mr. McNamee, Mr. Schneider, Mr.Â Silver, Mr. Willis, and current or former directors Jean Bua, Kavita Mahtani, and Kyungyeol Song. In an order entered on April 26, 2024, the Court approved the partiesâ€™ stipulation to stay all proceedings until motions to dismiss have been resolved in the 2023 Securities Action. â€‹2024 Securities Litigation On March 22, 2024, Ete Adote filed a complaint in the United States District Court for the Northern District of New York asserting claims under the federal securities laws against the Company, Mr. Marsh, and Mr. Middleton, on behalf of an alleged class of purchasers of Plug common stock between May 9, 2023 and January 16, 2024, styled Adote v. Plug Power, Inc. et al., No. 1:24-cv-00406-MAD-DJS (N.D.N.Y.). The allegations in the 2024 Securities Action are substantially similar to those in the consolidated 2023 Securities Action but cover a different putative class period that extends into 2024. On April 30, 2024, a second complaint asserting substantially similar claims against the same defendants, but on behalf of a putative class of purchasers of Plug Power common stock between MarchÂ 1, 2023 and JanuaryÂ 16, 2024, was filed in the Northern District of NewÂ York, styled Lee v. Plug Power, et al., No. 1:24;cv-0598-MAD-DJS (N.D.N.Y.). The Court has approved stipulations in both actions extending the time for all defendants to respond to any pleading until after the Court appoints lead plaintiff(s).â€‹Other Litigation On May 2, 2023, a lawsuit entitled Jacob Thomas and JTurbo Engineering & Technology, LLC v. Joule Processing, LLC and Plug Power Inc., Case No. 4:23-cv-01615, was filed in the United States District Court for the Southern District of Texas against Joule Processing, LLC and Plug Power Inc. The complaint alleges misappropriation of trade secrets under both the federal Defend Trade Secrets Act of 2016, 18 U.S.C. Â§ 1836, and the Texas Uniform Trade Secrets Act, three breach of contract claims, and four common law claims under Texas law. On December 5, 2023, the Court granted, in part, the partial motion to dismiss filed by Joule Processing, LLC and Plug Power Inc., and the Court dismissed with prejudice one of the breach of contract claims and the four common law claims. The Court also transferred another of the breach of contract claims to the United States District Court for the Northern District of New York, Case No. 1:23-cv-01528. That claim was dismissed without prejudice, and that matter was closed on April 4, 2024. Currently pending before the United States District Court for the Southern District of Texas is Plaintiff[sâ€™] Verified Amended Application for Temporary Restraining Order, Preliminary Injunction and Permanent Injunctive Relief (the â€œAmended Application for Injunctive Reliefâ€). Joule Processing, LLC and Plug Power Inc. filed their Response in Opposition to the Amended Application for Injunctive Relief on March 27, 2024, and Jacob Thomas and JTurbo Engineering & Technology, LLC filed their Reply in Support of the Amended Application for Injunctive Relief on April 4, 2024.â€‹On July 24, 2023, an action entitled Felton v. Plug Power, Inc., Case No. 1:23-cv-887, was filed in the U.S. District Court for the Northern District of New York asserting claims against the Company pursuant to the New York State Human Rights Law. The complaint asserts that the plaintiff is seeking damages to redress injuries suffered as a result of harassment and discrimination on the basis of his race, together with creating a hostile work environment, and retaliation. Plug disagrees with plaintiffâ€™s representations about his time at Plug and intends to vigorously defend against his 29 Table of Contentsallegations. Plaintiffâ€™s counsel moved to withdraw from the case, which the court approved on March 18, 2024, and therefore plaintiff is now pro se. The current discovery deadline is October 22, 2024.â€‹Concentrations of Credit Riskâ€‹Financial instruments that potentially subject the Company to credit risk consist principally of cash, cash equivalents, restricted cash and accounts receivable. Cash and restricted cash are maintained in accounts with financial institutions, which, at times may exceed the Federal depository insurance coverage of $250 thousand. The Company has not experienced losses on these accounts and management believes, based upon the quality of the financial institutions, that the credit risk with regard to these deposits is not significant.â€‹Concentrations of credit risk with respect to receivables exist due to the limited number of select customers with whom the Company has commercial sales arrangements. To mitigate credit risk, the Company performs appropriate evaluation of a prospective customerâ€™s financial condition.â€‹As of June 30, 2024, one customer comprised approximately 15.2% of the Companyâ€™s consolidated accounts receivable balance. At December 31, 2023, one customer comprised approximately 21.5% of the Companyâ€™s consolidated accounts receivable balance.â€‹For purposes of assigning a customer to a sale/leaseback transaction completed with a financial institution, the Company considers the end user of the assets to be the ultimate customer. For the three months ended June 30, 2024 and 2023, three and two customers accounted for 46.8% and 63.0% of total consolidated revenues, respectively. For the six months ended June 30, 2024 and 2023, two customers accounted for 39.9% and 41.9% of total consolidated revenues, respectively.â€‹Guaranteeâ€‹On May 30, 2023, our joint venture, HyVia, entered into a government grant agreement with Bpifrance. As part of the agreement, our wholly-owned subsidiary, Plug Power France, was required to issue a guarantee to Bpifrance in the amount of â‚¬20 million through the end of January 2027. Plug Power France is liable to the extent of the guarantee for sums due to Bpifrance from HyVia under the agreement based on the difference between the total amount paid by Bpifrance and the final amount certified by HyVia and Bpifrance. As part of the agreement, there are certain milestones that HyVia is required to meet, and the nonperformance of these milestones or termination of this agreement could result in this guarantee being called upon. As of June 30, 2024, no payments related to this guarantee have been made by the Company and Plug Power France did not record a liability for this guarantee as the likelihood of the guarantee being called upon is remote.â€‹Unconditional Purchase Obligationsâ€‹The Company has entered into certain offâ€"balance sheet commitments that require the future purchase of goods or services (â€œunconditional purchase obligationsâ€). The Companyâ€™s unconditional purchase obligations primarily consist of supplier arrangements, take or pay contracts and service agreements. For certain vendors, the Companyâ€™s unconditional obligation to purchase a minimum quantity of raw materials at an agreed upon price is fixed and determinable; while certain other raw material costs will vary due to product forecasting and future economic conditions.â€‹30 Table of ContentsFuture payments under non-cancelable unconditional purchase obligations with a remaining term in excess of one year as of June 30, 2024, were as follows (in thousands):â€‹â€‹â€‹â€‹â€‹Remainder of 2024Â Â Â Â $ 27,1852025â€‹â€‹ 8,0232026â€‹â€‹ 8,0232027â€‹â€‹ 2,6382028â€‹â€‹ â€"2029 and thereafter â€‹â€‹ â€"Totalâ€‹â€‹ 45,869â€‹â€‹20. Employee Benefit Plans â€‹2011 and 2021 Stock Option and Incentive Planâ€‹The Company has issued stock-based awards to employees and members of its Board of Directors (the â€œBoardâ€) consisting of stock options and restricted stock and restricted stock unit awards. The Company accounts for all stock-based awards to employees and members of the Board as compensation costs in the consolidated financial statements based on their fair values measured as of the date of grant. These costs are recognized over the requisite service period. Stock-based compensation costs recognized, excluding the Companyâ€™s matching contributions of $3.1 million and $3.0 million to the Plug Power Inc. 401(k) Savings & Retirement Plan and quarterly Board compensation, were $22.7 million and $36.9 million for the three months ended June 30, 2024 and 2023, respectively. Stock-based compensation costs recognized, excluding the Companyâ€™s matching contributions of $6.3 million and $6.0 million to the Plug Power Inc. 401(k) Savings & Retirement Plan and quarterly Board compensation, were $33.1 million and $77.0 million for the six months ended June 30, 2024 and 2023, respectively. The methods and assumptions used in the determination of the fair value of stock-based awards are consistent with those described in our 2023 Form 10-K.â€‹The components and classification of stock-based compensation expense, excluding the Companyâ€™s matching contributions to the Plug Power Inc. 401(k) Savings & Retirement Plan and quarterly Board compensation, were as follows (in thousands): â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Three months endedâ€‹Six months endedâ€‹June 30, 2024â€‹June 30, 2023â€‹June 30, 2024â€‹June 30, 2023Cost of sales$ 2,079â€‹$ 2,439â€‹$ 4,085â€‹$ 5,116Research and developmentâ€‹ 2,251â€‹â€‹ 1,765â€‹â€‹ 4,593â€‹â€‹ 4,047Selling, general and administrativeâ€‹ 18,416â€‹â€‹ 32,657â€‹â€‹ 24,440â€‹â€‹ 67,886â€‹$ 22,746â€‹$ 36,861â€‹$ 33,118â€‹$ 77,049â€‹Option Awardsâ€‹The Company issues options that are time and performance-based awards. All option awards are determined to be classified as equity awards. â€‹31 Table of ContentsService Stock Options Awardsâ€‹The following table reflects the service stock option activity for the six months ended June 30, 2024: â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â â€‹Â Â Â Â â€‹Â Â Â Â WeightedÂ Â Â Â â€‹â€‹â€‹â€‹â€‹â€‹Weightedâ€‹Averageâ€‹â€‹â€‹â€‹â€‹â€‹â€‹Averageâ€‹Remainingâ€‹Aggregateâ€‹ outstanding at December 31, 2023â€‹ 17,336,362â€‹$ 11.37â€‹â€‹ 7.86â€‹$ 11,391Options exercisable at December 31, 2023â€‹ 8,288,944â€‹â€‹ 11.84â€‹â€‹ 6.18â€‹â€‹ 7,250Options unvested at December 31, 2023â€‹ 9,047,418â€‹â€‹ 10.94â€‹â€‹ 9.39â€‹â€‹ 4,141Grantedâ€‹ 4,968,125â€‹â€‹ 2.51â€‹â€‹ â€"â€‹â€‹ â€"Exercisedâ€‹ (32,500)â€‹â€‹ 2.15â€‹â€‹ â€"â€‹â€‹ â€"Forfeitedâ€‹ (2,018,782)â€‹â€‹ 18.42â€‹â€‹ â€"â€‹â€‹ â€"Options outstanding at June 30, 2024â€‹ 20,253,205â€‹$ 8.51â€‹â€‹ 7.53â€‹$ 464Options exercisable at June 30, 2024â€‹ 7,954,524â€‹â€‹ 11.15â€‹â€‹ 5.66â€‹â€‹ 464Options unvested at June 30, 2024â€‹ 12,298,681â€‹$ 6.80â€‹â€‹ 8.75â€‹$ â€"â€‹The weighted average grant date fair value of the service stock options granted during the six months ended June 30, 2024 and 2023 was $1.78 and $6.76, respectively. The total intrinsic fair value of service stock options exercised during the six months ended June 30, 2024 and 2023 was $39 thousand and $1.8 million, respectively. The total fair value of the service stock options that vested during the six months ended June 30, 2024 and 2023 was approximately $8.2 million and $9.8 million, respectively.â€‹Compensation cost associated with service stock options represented approximately $5.4 million and $6.9 million of the total share-based payment expense recorded for the three months ended June 30, 2024 and 2023, respectively. Compensation cost associated with service stock options represented approximately $12.3 million and $15.2 million of the total share-based payment expense recorded for the six months ended June 30, 2024 and 2023, respectively. As of June 30, 2024, there was approximately $39.7 million of unrecognized compensation cost related to service stock option awards to be recognized over the weighted average remaining period of 1.98 years.â€‹Performance Stock Option Awardsâ€‹The following table reflects the performance stock option award activity for the six months ended June 30, 2024. Solely for the purposes of this table, the number of performance options is based on participants earning the maximum number of performance options (i.e. 200% of the target number of performance options):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â â€‹Â Â Â Â â€‹Â Â Â Â WeightedÂ Â Â Â â€‹â€‹â€‹â€‹â€‹â€‹Weightedâ€‹Averageâ€‹â€‹â€‹â€‹â€‹â€‹â€‹Averageâ€‹Remainingâ€‹Aggrega outstanding at December 31, 2023â€‹ 21,925,000â€‹$ 21.32â€‹ 5.27â€‹$ â€"Options exercisable at December 31, 2023â€‹ 2,782,000â€‹â€‹ 26.9â€‹ 4.7â€‹â€‹ â€"Options unvested at December 31, 2023â€‹ 19,143,000â€‹â€‹ 20.50â€‹ 5.35â€‹â€‹ â€"Grantedâ€‹ 2,452,500â€‹â€‹ 2.41â€‹ 6.82â€‹â€‹ â€"Exercisedâ€‹ â€"â€‹â€‹ â€"â€‹ â€"â€‹â€‹ â€"Forfeitedâ€‹ (2,250,000)â€‹â€‹ â€"â€‹ â€"â€‹â€‹ â€"Options outstanding at June 30, 2024â€‹ 22,127,500â€‹$ 19.33â€‹ 4.94â€‹$ â€"Options exercisable at June 30, 2024â€‹ 4,038,667â€‹â€‹ 20.99â€‹ 4.74â€‹â€‹ â€"Options unvested at June 30, 2024â€‹ 18,088,833â€‹$ 18.96â€‹ 4.98â€‹$ â€"â€‹The weighted average grant-date fair value of the performance stock options granted during the six months ended June 30, 2024 and 2023 was $0.53 and $4.32, respectively. There were no performance stock options exercised during the 32 Table of Contentssix months ended June 30, 2024 or 2023. The total fair value of the performance stock options that vested was $5.6 million and $0 during the six months ended June 30, 2024 and 2023, respectively.â€‹Compensation cost associated with performance stock options represented approximately $7.9 million and $17.9 million of the total share-based payment expense recorded for the three months ended June 30, 2024 and 2023, respectively. Compensation cost associated with performance stock options represented approximately $1.8 million and $35.3 million of the total share-based payment expense recorded for the six months ended June 30, 2024 and 2023, respectively. Compensation cost for the six months ended June 30, 2024 includes non-cash reversals due to forfeitures of unvested performance stock options of ($15.2) million during the first quarter of 2024. The non-cash compensation expense reversals were offset by compensation costs of $17.0 million during the six months ended June 30, 2024. As of June 30, 2024, there was approximately $14.4 million of unrecognized compensation cost related to performance stock option awards to be recognized over the weighted average remaining period of 1.43 years.â€‹As of June 30, 2024, there were 3,904,333 unvested performance stock options for which the employee requisite service period had not been rendered but were expected to vest. The aggregate intrinsic value of these unvested performance stock options was $0 as of June 30, 2024. The weighted average exercise price of these unvested performance stock options was $14.66 and the weighted average remaining contractual term was 5.29 years as of June 30, 2024.â€‹Restricted Common Stock and Restricted Stock Unit Awardsâ€‹The following table reflects the restricted common stock and restricted stock unit activity for the six months ended June 30, 2024 (in thousands except share amounts):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â â€‹â€‹WeightedÂ Â Â Â Aggregateâ€‹â€‹â€‹â€‹Average Grant Dateâ€‹Intrinsicâ€‹â€‹Sharesâ€‹Fair Valueâ€‹ValueUnvested restricted stock at December 31, 2023â€‹ 6,732,884â€‹$ 15.66â€‹$ 30,298Grantedâ€‹ 1,054,057â€‹â€‹ 2.85â€‹â€‹ â€"Vestedâ€‹ (573,045)â€‹â€‹ 17.84â€‹â€‹ â€"Forfeitedâ€‹ (931,081)â€‹â€‹ 17.88â€‹â€‹ â€"Unvested restricted stock at June 30, 2024â€‹ 6,282,815â€‹$ 12.98â€‹$ 14,639â€‹The weighted average grant-date fair value of the restricted common stock and restricted stock unit awards granted during the six months ended June 30, 2024 and 2023 was $2.85 and $10.42, respectively. The total fair value of restricted shares of common stock and restricted stock unit awards that vested for the six months ended June 30, 2024 and 2023 was $10.2 million and $16.8 million, respectively.â€‹Compensation cost associated with restricted common stock and restricted stock unit awards represented approximately $9.4 million and $12.0 million for the three months ended June 30, 2024 and 2023, respectively. Compensation cost associated with restricted common stock and restricted stock unit awards represented approximately $19.0 million and $26.6 million for the six months ended June 30, 2024 and 2023, respectively. As of June 30, 2024, there was $51.5 million of unrecognized compensation cost related to restricted common stock and restricted stock unit awards to be recognized over the weighted average period of 1.65 years.â€‹Included in the total unvested restricted common stock and restricted stock units as of June 30, 2024, there were 375,000 restricted common stock units outstanding with a performance target. The Company recorded expense associated with the restricted common stock units with a performance target of $0.7 million and $0 for the three months ended June 30, 2024 and 2023, respectively. The Company recorded expense associated with the restricted common stock units with a performance target of $1.3 million and $0 for the six months ended June 30, 2024 and 2023, respectively. As of June 30, 2024 there was $1.8 million of unrecognized compensation cost related to the restricted common stock units outstanding with a performance target to be recognized over the weighted average period of 2.08 years.â€‹33 Table of Contents401(k) Savings & Retirement Plan â€‹The Company issued 2,085,222 shares of common stock and 547,174 shares of common stock pursuant to the Plug Power Inc. 401(k) Savings & Retirement Plan during the six months ended June 30, 2024 and 2023, respectively.â€‹The Companyâ€™s expense for this plan was approximately $3.1 million and $3.0 million during the three months ended June 30, 2024 and 2023, respectively. The Companyâ€™s expense for this plan was approximately $6.3 million and $6.0 million during the six months ended June 30, 2024 and 2023, respectively.â€‹Non-Employee Director Compensationâ€‹The Company granted 73,632 shares of common stock and 11,466 shares of common stock to non-employee directors as compensation during the three months ended June 30, 2024 and 2023, respectively. The Company granted 127,230 shares of common stock and 21,782 shares of common stock to non-employee directors as compensation during the six months ended June 30, 2024 and 2023, respectively. All common stock issued is fully vested at the time of issuance and is valued at fair value on the date of issuance. The Companyâ€™s share-based compensation expense in connection with non-employee director compensation was approximately $0.2 million and $0.1 million during the three months ended June 30, 2024 and 2023, respectively. The Companyâ€™s share-based compensation expense in connection with non-employee director compensation was approximately $0.4 million and $0.2 million during the six months ended June 30, 2024 and 2023, respectively.â€‹21. Segment and Geographic Area Reportingâ€‹Our organization is managed from a sales perspective based on â€œgo-to-marketâ€ sales channels, emphasizing shared learning across end-user applications and common supplier/vendor relationships. These sales channels are structured to serve a range of customers for our products and services. As a result of this structure, we concluded that we have one operating and reportable segment â€" the design, development and sale of hydrogen products and solutions that help customers meet their business goals while decarbonizing their operations. Our chief executive officer was identified as the chief operating decision maker (CODM). All significant operating decisions made by management are largely based upon the analysis of Plug Power Inc. on a total company basis, including assessments related to our incentive compensation plans.â€‹The revenue and long-lived assets based on geographic location are as follows (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Revenuesâ€‹Revenuesâ€‹Long-Lived Assetsâ€‹Three months endedâ€‹Six months endedâ€‹As ofâ€‹June 30, 2024â€‹June 30, 2023â€‹June 30, 2024â€‹June 30, 2023â€‹June 30, 2024â€‹December 31, 2023North America$ 113,113â€‹$ 235,521â€‹$ 218,849â€‹$ 397,327â€‹$ 1,903,747â€‹$ 1,881,315Europeâ€‹ 21,182â€‹â€‹ 12,143â€‹â€‹ 29,756â€‹â€‹ 52,259â€‹â€‹ 151,268â€‹â€‹ 122,489Asiaâ€‹ 4,112â€‹â€‹ 5,998â€‹â€‹ 9,179â€‹â€‹ 9,280â€‹â€‹ â€"â€‹â€‹ â€"Otherâ€‹ 4,943â€‹â€‹ 6,520â€‹â€‹ 5,830â€‹â€‹ 11,602â€‹â€‹ 2,854â€‹â€‹ 884Total$ 143,350â€‹$ 260,182â€‹$ 263,614â€‹$ 470,468â€‹$ 2,057,869â€‹$ 2,004,688â€‹â€‹22. Related Party Transactionsâ€‹HyViaâ€‹Our 50/50 joint venture, HyVia, manufactures and sells fuel cell powered electric light commercial vehicles (â€œFCE-LCVsâ€) and supplies hydrogen fuel and fueling stations to support the FCE-LCV market, in each case primarily in Europe. For the three months ended June 30, 2024 and 2023, we recognized related party total revenue of $0.7 million and $2.3 million, respectively. For the six months ended June 30, 2024 and 2023, we recognized related party total revenue of $3.8 million and $6.1 million, respectively. As of June 30, 2024 and December 31, 2023, we had related party outstanding accounts receivable of $0.6 million and $2.3 million, respectively.â€‹34 Table of ContentsSK Plug Hyverseâ€‹Our 49/51 joint venture, SK Plug Hyverse, aims to provide hydrogen fuel cell systems, hydrogen fueling stations, electrolyzers and clean hydrogen to the Korean and other selected Asian markets. For the three months ended June 30, 2024 and 2023, we recognized related party total revenue of $1.1 million and $0.8 million, respectively. For the six months ended June 30, 2024 and 2023, we recognized related party total revenue of $4.5 million and $1.0 million, respectively. As of June 30, 2024 and December 31, 2023, we had related party outstanding accounts receivable of $0.5 million and $1.7 million, respectively.â€‹23. Restructuringâ€‹In February 2024, in a strategic move to enhance our financial performance and ensure long-term value creation in a competitive market, we approved a comprehensive initiative that encompasses a broad range of measures, including operational consolidation, strategic workforce adjustments, and various other cost-saving actions (the â€œRestructuring Planâ€). These measures are aimed at increasing efficiency, improving scalability, and maintaining our leadership position in the renewable energy industry. We began executing the Restructuring Plan in February 2024 and expect the Restructuring Plan to be completed in the second half of 2024, subject to local law and consultation requirements.â€‹The determination of when we accrue for involuntary termination benefits under restructuring plans depends on whether the termination benefits are provided under an ongoing benefit arrangement or under a one-time benefit arrangement. We account for involuntary termination benefits that are provided pursuant to one-time benefit arrangements in accordance with ASC 420, Exit or Disposal Cost Obligations (â€œASC 420â€) whereas involuntary termination benefits that are part of an ongoing written or substantive plan are accounted for in accordance with ASC 712, Nonretirement Postemployment Benefits (â€œASC 712â€). We accrue a liability for termination benefits under ASC 420 in the period in which the plan is communicated to the employees and the plan is not expected to change significantly. For ongoing benefit arrangements, inclusive of statutory requirements, we accrue a liability for termination benefits under ASC 712 when the existing situation or set of circumstances indicates that an obligation has been incurred, it is probable the benefits will be paid, and the amount can be reasonably estimated. The restructuring charges that have been incurred but not yet paid are recorded in accrued expenses and other current liabilities in our unaudited interim condensed consolidated balance sheets, as they are expected to be paid within the next twelve months.â€‹During the three months ended June 30, 2024, we incurred $1.6 million in restructuring costs recorded as severance expenses of $1.6 million and other restructuring costs of $49 thousand in the restructuring financial statement line item in the unaudited interim condensed consolidated statement of operations. During the six months ended June 30, 2024, we incurred $7.6 million in restructuring costs recorded as severance expenses of $6.8 million and other restructuring costs of $0.8 million in the restructuring financial statement line item in the unaudited interim condensed consolidated statement of operations. We expect to incur another $0.1 million in restructuring costs in subsequent quarters, which are primarily related to severance expenses, and are expected to be incurred during the third quarter of 2024. The actual timing and amount of costs associated with these restructuring actions may differ from our current expectations and estimates and such differences may be material.â€‹Severance expense recorded during the three and six months ended June 30, 2024 in accordance with ASC 420 was a result of the separation of full-time employees associated with the Restructuring Plan. As of June 30, 2024, $1.6 million of accrued severance-related costs were included in accrued expenses in our unaudited interim condensed consolidated balance sheets and are expected to be paid during the third quarter of 2024. Other costs are represented by (1) $0.2 million of legal and professional services costs, and (2) $0.6 million of other one-time employee termination benefits. As of June 30, 2024, $28 thousand of accrued other costs were included in accrued expenses in our unaudited interim condensed consolidated balance sheets and are expected to be paid during the third quarter of 2024.35 Table of Contentsâ€‹24. Subsequent Eventsâ€‹Common Stock At Market Issuance Sales Agreementâ€‹From June 30, 2024 through the date of filing of this Quarterly Report on Form 10-Q, the Company sold 13,045,572 shares of common stock at a weighted-average sales price of $2.35 per share for gross proceeds of $30.7 million with related issuance costs of $0.5 million.â€‹Public Offering of Common Stockâ€‹On July 22, 2024, the Company sold 78,740,157 shares of its common stock at a public offering price of $2.54 per share for net proceeds of $191.0 million after deduction of the underwriting discount and related offering expenses in an underwritten public offering with Morgan Stanley & Co. LLC. The Company granted the underwriter a 30-day option to purchase up to an additional 11,811,023 shares of common stock at the public offering price, less the underwriting discount.â€‹36 Table of ContentsItem 2 â€" Managementâ€™s Discussion and Analysis of Financial Condition and Results of Operationsâ€‹The following discussion should be read in conjunction with our accompanying unaudited interim condensed consolidated financial statements and notes thereto included within this Quarterly Report on Form 10-Q, and our audited and notes thereto included in our 2023 Form 10-K. In addition to historical information, this Quarterly Report on Form 10-Q and the following discussion contain statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. These forward-looking statements contain projections of our future results of operations or of our financial position or state other forward-looking information. In some cases, you can identify these statements by forward-looking words such as â€œbelieveâ€, â€œcouldâ€, â€œcontinueâ€, â€œestimateâ€, â€œexpectâ€, â€œforecastâ€, â€œintendâ€, â€œmayâ€, â€œshouldâ€, â€œwillâ€, â€œwouldâ€, â€œplanâ€, â€œprojectâ€ or the negative of such words or other similar words or phrases. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Investors are cautioned not to unduly rely on forward-looking statements because they involve risks and uncertainties, and actual results may differ materially from those discussed as a result of various factors, including, but not limited to:â€‹â—the anticipated benefits and actual savings and costs resulting from the implementation of the Restructuring Plan that was announced in February 2024;â—our ability to achieve our business objectives and to continue to meet our obligations, which is dependent upon our ability to maintain a certain level of liquidity and will depend in part on our ability to manage our cash flows, including successfully implementing our cost savings initiatives;â—the risk that we continue to incur losses and might never achieve or maintain profitability;â—the risk that we will need to raise additional capital to fund our operations and such capital may not be available to us;â—the risk that we may not be able to expand our business or manage our future growth effectively;â—the risk of loss related to an inability to maintain an effective system of internal control over financial reporting;â—the risk that delays in or not completing our product development and hydrogen plant construction goals may adversely affect our revenue and profitability;â—the risk that we may not be able to obtain from our hydrogen suppliers a sufficient supply of hydrogen at competitive prices or the risk that we may not be able to produce hydrogen internally at competitive prices;â—our ability to achieve the forecasted revenue and costs on the sale of our products;â—the risk that we may not be able to convert all of our estimated future revenue into revenue and cash flows;â—the risk that purchase orders may not ship, be installed and/or converted to revenue, in whole or in part;â—the risk that some or all of the recorded intangible assets and property, plant, and equipment could be subject to impairment;â—the risks associated with global economic uncertainty, including inflationary pressures, fluctuating interest rates, currency fluctuations, and supply chain disruptions;â—the risk of elimination, reduction of, or changes in qualifying criteria for government subsidies and economic incentives for alternative energy products, including with regards to the impact of the Inflation Reduction Act on our business;â—the risk that our lack of extensive experience in manufacturing and marketing of certain of our products may impact our ability to manufacture and market said products on a profitable and large-scale commercial basis;â—the risk that a sale or issuance of a significant number of shares of stock could depress the market price of our common stock;â—the risk of dilution to our stockholders and/or impact to our stock price should we need to raise additional capital;â—the risk that negative publicity related to our business or stock could result in a negative impact on our stock value and profitability;â—our ability to leverage, attract and retain key personnel;â—the risk of increased costs associated with legal proceedings and legal compliance;â—the risk that a loss of one or more of our major customers, or the delay in payment or the failure to pay receivables by one of our major customers, could have a material adverse effect on our financial condition;â—the risk of potential losses related to any contract disputes;37 Table of Contentsâ—the risk of potential losses related to any product liability claims;â—the cost and timing of developing, marketing, and selling our products;â—the risks involved with participating in joint ventures, including our ability or inability to execute our strategic growth plan through joint ventures;â—our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers;â—the cost and availability of fuel and fueling infrastructures for our products;â—the risk that our convertible senior notes, if settled in cash, could have a material adverse effect on our financial results;â—the risk that our convertible note hedges may affect the value of our convertible senior notes and our common stock;â—the risks related to the use of flammable fuels in our products;â—the risks, liabilities, and costs related to environmental, health, and safety matters;â—market acceptance of our products and services;â—our ability to establish and maintain relationships with third parties with respect to product development, manufacturing, distribution, and servicing, and the supply of key product components;â—the risk that we may be unable to successfully pursue, integrate, or execute upon our new business ventures;â—the cost and availability of components and parts for our products;â—the risk that possible new tariffs could have a material adverse effect on our business;â—our ability to develop commercially viable products;â—our ability to reduce product and manufacturing costs;â—our ability to successfully market, distribute and service our products and services internationally;â—our ability to improve system reliability for our products;â—competitive factors, such as price competition and competition from other traditional and alternative energy companies;â—our ability to protect our intellectual property;â—the risks related to our operational dependency on information technology and the risk of the failure of such technology, including failure to effectively prevent, detect, and recover from security compromises or breaches, including cyber-attacks;â—the cost of complying with current and future federal, state and international governmental regulations;â—the risks associated with past and potential future acquisitions;â—the risks associated with geopolitical instability, including the conflicts in the Middle East and between Russia and Ukraine as well as tensions between U.S. and China and neighboring regions; andâ—the volatility of our stock price.â€‹The risks included here are not exhaustive, and additional factors could adversely affect our business and financial performance, including factors and risks discussed in the section titled â€œRisk Factorsâ€ included under Part I, Item 1A, in our 2023 Form 10-K and supplemented by Part II, Item 1A of the Quarterly Report on Form 10-Q for the quarter ended March 31, 2024 and Part II, Item 1A of this Quarterly Report on Form 10-Q. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for management to predict all such risk factors, nor can we assess the impact of all such risk factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from these contained in any forward-looking statements. While forward-looking statements reflect our good faith beliefs, they are not guarantees of future performance. These forward-looking statements speak only as of the date on which the statements were made. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this Quarterly Report on Form 10-Q.â€‹References in this Quarterly Report on Form 10-Q to â€œPlugâ€, the â€œCompanyâ€, â€œweâ€, â€œourâ€ or â€œusâ€ refer to Plug Power Inc., including as the context requires, its subsidiaries.38 Table of ContentsOverview â€‹Plug is facilitating the paradigm shift to an increasingly electrified world by innovating cutting-edge hydrogen and fuel cell solutions.â€‹While we continue to develop commercially viable hydrogen and fuel cell product solutions, we have expanded our offerings to support a variety of commercial operations that can be powered with clean hydrogen. We provide electrolyzers that allow customers â€" such as refineries, producers of chemicals, steel, fertilizer and commercial refueling stations â€" to generate hydrogen on-site. We are focusing our efforts on (a) industrial mobility applications, including electric forklifts and electric industrial vehicles, at multi shift high volume manufacturing and high throughput distribution sites where we believe our products and services provide a unique combination of productivity, flexibility, and environmental benefits; (b) production of hydrogen; and (c) stationary power systems that will support critical operations, such as data centers, microgrids, and generation facilities, in either a backup power or continuous power role, and replace batteries, diesel generators or the grid for telecommunication logistics, transportation, and utility customers. Plug expects to support these products and customers with an ecosystem of vertically integrated products that produce, transport, store and handle, dispense, and use hydrogen for mobility and power applications.â€‹Our current product and service portfolio includes: â€‹GenDrive: GenDrive is our hydrogen fueled PEM fuel cell system, providing power to material handling electric vehicles (â€œEVsâ€), including Class 1, 2, 3 and 6 electric forklifts, automated guided vehicles, and ground support equipment.â€‹GenSure: GenSure is our stationary fuel cell solution providing scalable, modular PEM fuel cell power to support the backup and grid-support power requirements of the telecommunications, transportation, and utility sectors; our GenSure High Power Fuel Cell Platform supports large scale stationary power and data center markets.â€‹ProGen: ProGen is our fuel cell stack and engine technology currently used globally in mobility and stationary fuel cell systems, and as engines in electric delivery vans. This includes Plugâ€™s membrane electrode assembly (â€œMEAâ€), a critical component of the fuel cell stack used in zero-emission fuel cell EV engines.â€‹GenFuel: GenFuel is our liquid hydrogen fueling, delivery, generation, storage, and dispensing system.â€‹GenCare: GenCare is our ongoing â€œInternet of Thingsâ€-based maintenance and on-site service program for GenDrive fuel cell systems, GenSure fuel cell systems, GenFuel hydrogen storage and dispensing products and ProGen fuel cell engines. â€‹GenKey: GenKey is our vertically integrated â€œturn-keyâ€ solution combining either GenDrive or GenSure fuel cell power with GenFuel fuel and GenCare aftermarket service, offering complete simplicity to customers transitioning to fuel cell power.â€‹Electrolyzers: The design and implementation of 5MW and 10MW electrolyzer systems that are modular, scalable hydrogen generators optimized for clean hydrogen production. Electrolyzers generate hydrogen from water using electricity and a special membrane and â€œgreenâ€ hydrogen is generated by using renewable energy inputs, such as solar or wind power.â€‹Liquefaction Systems: Plugâ€™s 15 ton-per-day and 30 ton-per-day liquefiers are engineered for high efficiency, reliability, and operational flexibility â€" providing consistent liquid hydrogen to customers. This design increases plant reliability and availability while minimizing parasitic losses like heat leak and seal gas losses. â€‹Cryogenic Equipment: Engineered equipment including trailers and mobile storage equipment for the distribution of liquified hydrogen, oxygen, argon, nitrogen and other cryogenic gases.â€‹39 Table of ContentsLiquid Hydrogen: Liquid hydrogen provides an efficient fuel alternative to fossil-based energy. We produce liquid hydrogen through our electrolyzer systems and liquefaction systems. Liquid hydrogen supply will be used by customers in material handling operations, fuel cell electric vehicle fleets, and stationary power applications.â€‹We provide our products and solutions worldwide through our direct sales force, and by leveraging relationships with original equipment manufacturers (â€œOEMsâ€) and their dealer networks. Plug is currently targeting Asia, Australia, Europe, Middle East and North America for expansion in adoption. The European Union has rolled out ambitious targets for the hydrogen economy, with the United Kingdom also taking steps in this direction, and Plug is seeking to execute on our strategy to become one of the European leaders in the hydrogen economy. This includes a targeted account strategy for material handling, securing strategic partnerships with European OEMs, energy companies, utility leaders and accelerating our electrolyzer business.â€‹We manufacture our commercially viable products in Latham, New York; Rochester, New York; Slingerlands, New York; Houston, Texas; Lafayette, Indiana; and Spokane, Washington, and support liquid hydrogen production and logistics in Charleston, Tennessee and Kingsland, Georgia.â€‹Results of Operationsâ€‹Our primary sources of revenue are from sales of equipment, related infrastructure and other, services performed on fuel cell systems and related infrastructure, power purchase agreements, and fuel delivered to customers and related equipment. A certain portion of our sales result from acquisitions in legacy markets, which we are working to transition to renewable solutions. Revenue from sales of equipment, related infrastructure and other represents sales of our GenDrive units, GenSure stationary backup power units, cryogenic stationary and on road storage, hydrogen liquefaction systems, electrolyzers and hydrogen fueling infrastructure. Revenue from services performed on fuel cell systems and related infrastructure represents revenue earned on our service and maintenance contracts and sales of spare parts. Revenue from power purchase agreements primarily represent payments received from customers who make monthly payments to access the Companyâ€™s GenKey solution. Revenue associated with fuel delivered to customers and related equipment represents the sale of hydrogen to customers that has been purchased by the Company from a third party or generated at our hydrogen production plant.â€‹Provision for Common Stock Warrantsâ€‹On August 24, 2022, the Company issued to Amazon.com NV Investment Holdings LLC, a wholly owned subsidiary of Amazon, a warrant (the â€œ2022 Amazon Warrantâ€) to acquire up to 16,000,000 shares (the â€œ2022 Amazon Warrant Sharesâ€) of the Companyâ€™s common stock, par value $.01 per share (the â€œcommon stockâ€), subject to certain vesting events described below under â€œCommon Stock Transactions â€" Amazon Transaction Agreement in 2022â€.â€‹In 2017, in separate transactions, the Company issued a warrant to each of Amazon.com NV Investment Holdings LLC and Walmart to purchase up to 55,286,696 shares of the Companyâ€™s common stock, subject to certain vesting events described below under â€œCommon Stock Transactions â€" Amazon Transaction Agreement in 2017â€ and â€œCommon Stock Transactions â€" Walmart Transaction Agreementâ€. The Company recorded a portion of the estimated fair value of the warrants as a reduction of revenue based upon the projected number of shares of common stock expected to vest under the warrants, the proportion of purchases by Amazon, Walmart and their affiliates within the period relative to the aggregate purchase levels required for vesting of the respective warrants, and the then-current fair value of the warrants.â€‹40 Table of ContentsThe amount of provision for the Amazon and Walmart Warrants recorded as a reduction of revenue during the three and six months ended June 30, 2024 and 2023, respectively, is shown in the table below (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Three months ended â€‹Six months endedâ€‹Â Â Â June 30, â€‹June 30, â€‹â€‹2024â€‹2023â€‹2024â€‹2023Sales of equipment, related infrastructure and otherâ€‹$ (661)â€‹$ (692)â€‹$ (2,928)â€‹$ (1,126)Services performed on fuel cell systems and related infrastructureâ€‹Â (531)â€‹Â (311)â€‹Â (979)â€‹Â (685)Power purchase agreementsâ€‹Â (1,713)â€‹Â 783â€‹Â (2,787)â€‹Â (6,402)Fuel delivered to customers and related equipmentâ€‹Â (2,927)â€‹Â 93â€‹Â (3,633)â€‹Â (6,089)Totalâ€‹$ (5,832)â€‹$ (127)â€‹$ (10,327)â€‹$ (14,302)â€‹Net revenue, cost of revenue, gross profit/(loss) and gross margin/(loss) for the three and six months ended June 30, 2024 and 2023 were as follows (in thousands):â€‹Three months endedâ€‹Six months endedâ€‹June 30,â€‹June 30,â€‹â€‹â€‹â€‹CostÂ ofÂ Â Â Â GrossÂ Â Â Â Grossâ€‹â€‹â€‹â€‹â€‹CostÂ ofÂ Â Â Â GrossÂ Â Â Â Grossâ€‹â€‹Net Revenueâ€‹Revenueâ€‹Profit/(Loss)â€‹MarginÂ â€‹Net Revenueâ€‹Revenueâ€‹Profit/(Loss)â€‹Margin/(Loss)Â For the period ended June 30, 2024:â€‹Sales of equipment, related infrastructure and other$ 76,788â€‹$ 129,911â€‹$ (53,123)Â (69.2)%â€‹$ 145,083â€‹$ 265,036â€‹$ (119,953)Â (82.7)%Services performed on fuel cell systems and related infrastructureÂ

13,034â€‹Â 13,730â€‹Â (696)Â (5.3)%â€‹Â 26,057â€‹Â 26,687â€‹Â (630)Â (2.4)%Provision for loss contracts related to serviceâ€‹ â€”â€‹â€‹ 16,484â€‹â€‹ (16,484)â€‹N/Aâ€‹â€‹â€‹ â€”â€‹â€‹ 32,229â€‹â€‹ (32,229)â€‹N/Aâ€‹Power purchase agreementsÂ 19,674â€‹Â 54,312â€‹Â (34,638)Â (176.1)%â€‹Â 37,978â€‹Â 109,540â€‹Â (71,562)Â (188.4)%Fuel delivered to customers and related equipmentÂ 29,887â€‹Â 58,317â€‹Â (28,430)Â (95.1)%â€‹Â 48,173â€‹Â 116,890â€‹Â (68,717)Â (142.6)%OtherÂ 3,967â€‹Â 1,851â€‹Â 2,116Â 53.3%â€‹Â 6,323â€‹Â 3,562â€‹Â 2,761Â 43.7%Total$ 143,350â€‹$ 274,605â€‹$ (131,255)Â (91.6)%â€‹$ 263,614â€‹$ 553,944â€‹$ (290,330)Â (110.1)%For the period ended June 30, 2023:â€‹Sales of equipment, related infrastructure and other$ 216,286â€‹$ 187,408â€‹$ 28,878Â 13.4%â€‹$ 398,380â€‹$ 345,728â€‹$ 52,652Â 13.2%Services performed on fuel cell systems and related infrastructureÂ 8,701â€‹Â 23,449â€‹Â (14,748)Â (169.5)%â€‹Â 17,798â€‹Â 35,670â€‹Â (17,872)Â (100.4)%Provision for loss contracts related to serviceâ€‹ â€”â€‹â€‹ 7,331â€‹â€‹ (7,331)â€‹N/Aâ€‹â€‹â€‹ â€”â€‹â€‹ 14,220â€‹â€‹ (14,220)â€‹N/Aâ€‹Power purchase agreementsÂ 16,130â€‹Â 53,976â€‹Â (37,846)Â (234.6)%â€‹Â 24,067â€‹Â 100,792â€‹Â (76,725)Â (318.8)%Fuel delivered to customers and related equipmentÂ 17,878â€‹Â 64,450â€‹Â (46,572)Â (260.5)%â€‹Â 28,020â€‹Â 118,951â€‹Â (90,931)Â (324.5)%OtherÂ 1,187â€‹Â 1,711â€‹Â (524)Â (44.1)%â€‹Â 2,203â€‹Â 2,646â€‹Â (443)Â (20.1)%Total$ 260,182â€‹$ 338,325â€‹$ (78,143)Â (30.0)%â€‹$ 470,468â€‹$ 618,007â€‹$ (147,539)Â (31.4)%â€‹Net Revenueâ€‹Revenue â€“ sales of equipment, related infrastructure and other. Revenue from sales of equipment, related infrastructure and other represents sales of our GenDrive units, GenSure stationary backup power units, cryogenic stationary and on road storage, hydrogen liquefaction systems, electrolyzers and hydrogen fueling infrastructure referred to at the site level as hydrogen installations. Revenue from sales of equipment, related infrastructure and other for the three months ended June 30, 2024 decreased $139.5 million, or 64.5%, to $76.8 million from $216.3 million for the three months ended June 30, 2023. The decrease in revenue from sales of hydrogen infrastructure of $45.4 million was due to five hydrogen site installations for the three months ended June 30, 2024 compared to 17 for the three months ended June 30, 2023. Additionally, revenue from sales of cryogenic storage equipment and liquefiers decreased $38.7 million for the three months ended June 30, 2024 primarily due to fewer projects and a slower rate of progress on existing projects as they near completion compared to the three months ended June 30, 2023. The decrease in revenue related to sales of fuel cell systems of $59.0 million was due primarily to a decrease in volume of GenDrive units sold, with 725 units sold for the three months ended June 30, 2024 compared to 2,680 units sold for the three months ended June 30, 2023. Additionally, there was a decrease in revenue of $4.4 million related to decreased sales of engineered equipment from the Frames acquisition, for which sales are not expected to continue beyond current commitments. Partially offsetting these decreases, revenue from sales of electrolyzers increased $8.1 million, primarily due to a large-scale electrolyzer project with revenue recognized over time during the three months ended June 30, 2024.41 Table of Contentsâ€‹Revenue from sales of equipment, related infrastructure and other for the six months ended June 30, 2024 decreased $253.3 million, or 63.6%, to $145.1 million from $398.4 million for the six months ended June 30, 2023. The revenue related to sales of electrolyzers decreased $30.6 million, primarily due to a decrease in 1MW electrolyzer stack sales during the six months ended June 30, 2024 compared to the six months ended June 30, 2023. The decrease in sales of hydrogen infrastructure revenue of $82.0 million was due to a decrease in volume with eight hydrogen site installations for the six months ended June 30, 2024 compared to 31 for the six months ended June 30, 2023. Additionally, revenue from sales of cryogenic storage equipment and liquefiers decreased $63.9 million for the six months ended June 30, 2024 primarily due to fewer projects and a slower rate of progress on existing projects as they near completion compared to the six months ended June 30, 2023. The decrease in revenue related to sales of fuel cell systems of $68.9 million was primarily due to a decrease in volume of GenDrive units sold, with 2,023 units sold for the six months ended June 30, 2024 compared to 3,715 units sold for the six months ended June 30, 2023. Additionally, there was a decrease in revenue of $8.0 million related to decreased sales of engineered equipment from the Frames acquisition, for which sales are not expected to continue beyond current commitments.â€‹Revenue â€“ services performed on fuel cell systems and related infrastructure.Â Revenue from services performed on fuel cell systems and related infrastructure represents revenue earned on our service and maintenance contracts and sales of spare parts. Revenue from services performed on fuel cell systems and related infrastructure for the three months ended June 30, 2024 increased $4.3 million, or 49.8%, to $13.0 million from $8.7 million for the three months ended June 30, 2023. The increase in revenue from services performed on fuel cell systems and related infrastructure was primarily related to the increase in number of units in service, with the number of GenDrive units under maintenance contracts during the three months ended June 30, 2024 of 21,940 compared to 20,019 for the three months ended June 30, 2023, coupled with an increase in service rates negotiated with certain customers.â€‹Revenue from services performed on fuel cell systems and related infrastructure for the six months ended June 30, 2024 increased $8.3 million, or 46.4%, to $26.1 million from $17.8 million for the six months ended June 30, 2023. The increase in revenue from services performed on fuel cell systems and related infrastructure was primarily related to the increase in number of units in service during the six months ended June 30, 2024 compared to the six months ended June 30, 2023, as discussed above, coupled with an increase in service rates negotiated with certain customers.â€‹Revenue â€“ power purchase agreements.Â Revenue from Power Purchase Agreements (â€œPPAsâ€) represents payments received from customers for power generated through the provision of equipment and service. Revenue from PPAs for the three months ended June 30, 2024 increased $3.5 million, or 22.0%, to $19.7 million from $16.1 million for the three months ended June 30, 2023. The increase in revenue was a result of an increase in the number of units and customer sites party to these agreements. There were 31,850 GenDrive units under PPA arrangements during the three months ended June 30, 2024 compared to 30,702 during the three months ended June 30, 2023. In addition, there were 146 hydrogen sites under PPA arrangements during the three months ended June 30, 2024 compared to 129 during the three months ended June 30, 2023. Furthermore, both pricing rates and mix of units to new customer sites were favorable in the second quarter of 2024 compared to the second quarter of 2023. Partially offsetting the increase in revenue was an increase in the provision for common stock warrants recorded as a reduction of revenue, which increased to $1.7 million for the three months ended June 30, 2024 compared to a negative provision of $0.8 million for the three months ended June 30, 2023.â€‹Revenue from PPAs for the six months ended June 30, 2024 increased $13.9 million, or 57.8%, to $38.0 million from $24.1 million for the six months ended June 30, 2023. The increase in revenue was a result of an increase in the number of units and customer sites party to these agreements, as discussed above, as well as more favorable pricing rates and mix of units to new customer sites during the first half of 2024 compared to the first half of 2023. Finally, there was a decrease in the provision for common stock warrants recorded as a reduction of revenue, which decreased to $2.8 million for the six months ended June 30, 2024 compared to $6.4 million for the six months ended June 30, 2023.â€‹Revenue â€“ fuel delivered to customers and related equipment. Revenue associated with fuel and related equipment delivered to customers represents the sale of hydrogen that has been purchased by the Company from a third party or generated at our hydrogen production plant. Revenue associated with fuel delivered to customers for the three months 42 Table of Contentsended June 30, 2024 increased $12.0 million, or 67.2%, to $29.9 million from $17.9 million for the three months ended June 30, 2023. The increase in revenue was primarily due to an increase in the number of sites with fuel contracts, with 257 sites receiving fuel delivery as of June 30, 2024 compared to 229 sites as of June 30, 2023. Furthermore, favorable fuel rates were negotiated with certain customers in the second quarter of 2024. Partially offsetting the increase in revenue was an increase in the provision for common stock warrants recorded as a reduction of revenue, which increased to $2.9 million for the three months ended June 30, 2024 compared to a negative provision of $0.1 million for the three months ended June 30, 2023.â€‹Revenue associated with fuel delivered to customers for the six months ended June 30, 2024 increased $20.2 million, or 71.9%, to $48.2 million from $28.0 million for the six months ended June 30, 2023. The increase in revenue was primarily due to an increase in the number of sites with fuel contracts. Furthermore, favorable fuel rates were negotiated with certain customers in the first half of 2024. Finally, there was a decrease in the provision for common stock warrants recorded as a reduction of revenue, which decreased to $3.6 million for the six months ended June 30, 2024 compared to $6.1 million for the six months ended June 30, 2023.â€‹Cost of Revenue â€‹Cost of revenue â€“ sales of equipment, related infrastructure and other. Cost of revenue from sales of equipment, related infrastructure and other includes direct materials, labor costs, and allocated overhead costs related to the manufacture of our fuel cells such as GenDrive units and GenSure stationary back-up power units, cryogenic stationary and on road storage, and electrolyzers, as well as hydrogen fueling infrastructure referred to at the site level as hydrogen installations. Cost of revenue from sales of equipment, related infrastructure and other for the three months ended June 30, 2024 decreased $57.5 million, or 30.7%, to $129.9 million from $187.4 million for the three months ended June 30, 2023. The cost of revenue related to sales of hydrogen infrastructure decreased $24.2 million due to the decrease in the number of hydrogen site installations, with five hydrogen site installations for the three months ended June 30, 2024 compared to 17 for the three months ended June 30, 2023. The decrease in cost of revenue related to sales of cryogenic storage equipment and liquefiers of $29.6 million for the three months ended June 30, 2024 is primarily due to fewer projects and a slower rate of progress on existing projects as they near completion compared to the three months ended June 30, 2023. Cost of revenue related to sales of fuel cell systems decreased by $25.6 million primarily due to a decrease in volume of GenDrive units sold, with 725 units sold for the three months ended June 30, 2024 compared to 2,680 units sold for the three months ended June 30, 2023. Additionally, there was a decrease in cost of revenue of $3.7 million related to a decrease in sales of engineered equipment from the Frames acquisition, for which sales are not expected to continue beyond current commitments. Partially offsetting these decreases was an increase in cost of revenue related to sales of electrolyzer stacks and systems of $25.6 million, which was primarily due to a large-scale electrolyzer project with revenue recognized over time during the three months ended June 30, 2024. Gross loss generated from sales of equipment, related infrastructure and other was (69.2%) for the three months ended June 30, 2024 compared to a gross margin of 13.4% for the three months ended June 30, 2023. The decrease from gross margin to gross loss was primarily due to customer mix, lower margins on new product offerings, inventory valuation adjustments and decline in volume which impacted leveraging of labor and overhead in the second quarter of 2024.â€‹Cost of revenue from sales of equipment, related infrastructure and other for the six months ended June 30, 2024 decreased $80.7 million, or 23.3%, to $265.0 million from $345.7 million for the six months ended June 30, 2023. The cost of revenue related to sales of hydrogen infrastructure decreased $42.1 million due to the decrease in the number of hydrogen site installations, with eight hydrogen site installations for the six months ended June 30, 2024 compared to 31 for the six months ended June 30, 2023. The decrease in cost of revenue related to sales of cryogenic storage equipment and liquefiers of $43.2 million for the six months ended June 30, 2024 is primarily due to fewer projects and a slower rate of progress on existing projects as they near completion compared to the six months ended June 30, 2023. Cost of revenue related to sales of fuel cell systems decreased $0.6 million primarily due to a decrease in the volume of GenDrive units sold for the six months ended June 30, 2024 compared to the six months ended June 30, 2023, partially offset by an increase in inventory valuation adjustments and under-absorption of labor and overhead. Additionally, there was a decrease in cost of revenue of $5.6 million related to a decrease in sales of engineered equipment from the Frames acquisition, for which sales are not expected to continue beyond current commitments. Partially offsetting these decreases was an increase in cost of revenue related to sales of electrolyzer stacks and systems of $10.8 million, primarily due to a large-scale 43 Table of Contentselectrolyzer project with revenue recognized over time during the six months ended June 30, 2024. Gross loss generated from sales of equipment, related infrastructure and other was (82.7%) for the six months ended June 30, 2024 compared to a gross margin of 13.2% for the six months ended June 30, 2023. The decrease from gross margin to gross loss was primarily due to customer mix, lower margins on new product offerings, inventory valuation adjustments and decline in volume which impacted leveraging of labor and overhead in the first half of 2024.â€‹Cost of revenue â€“ services performed on fuel cell systems and related infrastructure. Cost of revenue from services performed on fuel cell systems and related infrastructure includes the labor, material costs and allocated overhead costs incurred for our product service and hydrogen site maintenance contracts and spare parts. Cost of revenue from services performed on fuel cell systems and related infrastructure for the three months ended June 30, 2024 decreased $9.7 million, or 41.4%, to $13.7 million from $23.4 million for the three months ended June 30, 2023. The decrease in cost of revenue was primarily due to an increase in the release of the loss accrual. Gross loss decreased to (5.3%) for the three months ended June 30, 2024 compared to gross loss of (169.5%) for the three months ended June 30, 2023. The decrease in gross loss was primarily due to an increase in negotiated contract rates discussed above, as well as an increase in the release of the loss accrual during the three months ended June 30, 2024.â€‹Cost of revenue from services performed on fuel cell systems and related infrastructure for the six months ended June 30, 2024 decreased $9.0 million, or 25.2%, to $26.7 million from $35.7 million for the six months ended June 30, 2023. The decrease in cost of revenue was primarily due to an increase in the release of the loss accrual. Gross loss decreased to (2.4%) for the six months ended June 30, 2024 compared to gross loss of (100.4%) for the six months ended June 30, 2023. The decrease in gross loss was primarily due to an increase in negotiated contract rates discussed above, as well as an increase in the release of the loss accrual during the six months ended June 30, 2024.â€‹Cost of revenue â€“ provision for loss contracts related to service. The Company also recorded a provision for loss contracts related to service of $16.5 million for the three months ended June 30, 2024 compared to $7.3 million for the three months ended June 30, 2023. The Company increased the provision due to continued cost and inflationary increases of labor, parts and related overhead coupled with the timing of the remaining period of service required, partially offset by an increase in negotiated contract rates with certain customers. Accordingly, the Company increased its estimated projected costs to service fuel cell systems and related infrastructure.â€‹The Company recorded a provision for loss contracts related to service of $32.2 million for the six months ended June 30, 2024 compared to $14.2 million for the six months ended June 30, 2023. The Company increased the provision due to continued cost and inflationary increases of labor, parts and related overhead coupled with the timing of the remaining period of service required, partially offset by an increase in negotiated contract rates with certain customers. Accordingly, the Company increased its estimated projected costs to service fuel cell systems and related infrastructure.â€‹Cost of revenue â€“ power purchase agreements. Cost of revenue from PPAs includes depreciation of assets utilized and service costs to fulfill PPA obligations and interest costs associated with certain financial institutions for leased equipment. Cost of revenue from PPAs for the three months ended June 30, 2024 increased $0.3 million, or 0.6%, to $54.3 million from $54.0 million for the three months ended June 30, 2023. The increase in cost was primarily a result of an increase in units and sites under PPA contracts, partially offset by a decrease in scrap events during the three months ended June 30, 2024. There were 31,850 GenDrive units under PPA arrangements during the three months ended June 30, 2024 compared to 30,702 during the three months ended June 30, 2023. In addition, there were 146 hydrogen sites under PPA arrangements during the three months ended June 30, 2024 compared to 129 during the three months ended June 30, 2023. Gross loss decreased to (176.1%) for the three months ended June 30, 2024 compared to (234.6%) for the three months ended June 30, 2023. The decrease in gross loss was primarily due to improved pricing and mix of units and a reduction of scrap events, partially offset by an increase in provision for common stock warrants.â€‹Cost of revenue from PPAs for the six months ended June 30, 2024 increased $8.7 million, or 8.7%, to $109.5 million from $100.8 million for the six months ended June 30, 2023. The increase in cost was primarily a result of an increase in units and sites under PPA contracts, partially offset by a decrease in scrap events during the three months ended June 30, 2024. Gross loss decreased to (188.4%) for the six months ended June 30, 2024 compared to (318.8%) for the six 44 Table of Contentsmonths ended June 30, 2023. The decrease in gross loss was primarily due to improved pricing and mix of units, a reduction of scrap events and a decrease in provision for common stock warrants.â€‹Cost of revenue â€“ fuel delivered to customers and related equipment. Cost of revenue from fuel delivered to customers and related equipment represents the purchase of hydrogen from suppliers and internally produced hydrogen that is ultimately sold to customers. Cost of revenue from fuel delivered to customers for the three months ended June 30, 2024 decreased $6.1 million, or 9.5%, to $58.3 million from $64.5 million for the three months ended June 30, 2023. The decrease was primarily due to lower costs of purchased fuel, an increase in fuel internally produced by the Company, which is inherently lower in cost, as well as a recognition of the clean hydrogen production tax credit (â€œPTCâ€). Gross loss decreased to (95.1%) during the three months ended June 30, 2024 compared to (260.5%) during the three months ended June 30, 2023. The decrease in gross loss was primarily due to favorable fuel rates negotiated with certain customers, lower costs of purchased fuel, an increase in fuel internally produced by the Company and recognition of the PTC.â€‹Cost of revenue from fuel delivered to customers for the six months ended June 30, 2024 decreased $2.1 million, or 1.7%, to $116.9 million from $119.0 million for the six months ended June 30, 2023. The decrease was primarily due to lower costs of purchased fuel, an increase in fuel internally produced by the Company, which is inherently lower in cost, as well as a recognition of the PTC. Gross loss decreased to (142.6%) during the six months ended June 30, 2024 compared to (324.5%) during the six months ended June 30, 2023. The decrease in gross loss was primarily due to favorable fuel rates negotiated with certain customers, lower costs of purchased fuel, an increase in fuel internally produced by the Company and recognition of the PTC.â€‹Expenses â€‹Research and development expense. Research and development expenses include: materials to build development and prototype units, cash and non-cash compensation and benefits for the engineering and related staff, expenses for contract engineers, fees paid to consultants for services provided, materials and supplies consumed, facility related costs such as computer and network services, and other general overhead costs associated with our research and development activities. Research and development expense for the three months ended June 30, 2024 decreased $10.3 million, or 35.2%, to $18.9 million from $29.3 million for the three months ended June 30, 2023.Â The decrease was primarily related to headcount reductions.â€‹Research and development expense for the six months ended June 30, 2024 decreased $11.5 million, or 20.6%, to $44.2 million from $55.8 million for the six months ended June 30, 2023.Â The decrease was primarily related to a decrease in component materials as well as headcount reductions.â€‹Selling, general and administrative expenses. Selling, general and administrative expenses include cash and non-cash compensation, benefits, amortization of intangible assets and related costs in support of our general corporate functions, including general management, finance and accounting, human resources, selling and marketing, information technology and legal services. Selling, general and administrative expenses for the three months ended June 30, 2024 decreased $16.0 million, or 15.8%, to $85.1 million from $101.2 million for the three months ended June 30, 2023. The decrease was primarily due a decrease in stock compensation, as certain performance awards nearing the end of their vesting period.â€‹Selling, general and administrative expenses for the six months ended June 30, 2024 decreased $42.1 million, or 20.5%, to $163.1 million from $205.2 million for the six months ended June 30, 2023. The decrease was primarily due to a decrease in stock compensation expense, of which $17.2 million is related to stock compensation forfeitures resulting from the Restructuring Plan announced in February 2024, as well as certain performance awards nearing the end of their vesting period.â€‹Restructuring. Expenses related to the Restructuring Plan for the three months ended June 30, 2024 was $1.6 million. The increase was due to severance and benefits related to the Restructuring Plan the Company announced in February 2024.â€‹45 Table of ContentsExpenses related to the Restructuring Plan for the six months ended June 30, 2024 was $7.6 million. The increase was due to severance and benefits related to the Restructuring Plan the Company announced in February 2024.â€‹Impairment. Impairment for the three months ended June 30, 2024 decreased $6.0 million, or 60.6%, to $3.9 million from $10.0 million for the three months ended June 30, 2023. The decrease was primarily related to the Company recording a lower impairment charge on long-lived assets during the three months ended June 30, 2024, partially offset by a $3.0 million impairment charge to a non-marketable equity security.â€‹Impairment for the six months ended June 30, 2024 decreased $6.8 million, or 61.9%, to $4.2 million from $11.1 million for the six months ended June 30, 2023. The decrease was primarily related to the Company recording a lower impairment charge on long-lived assets during the six months ended June 30, 2024, partially offset by a $3.0 million impairment charge to a non-marketable equity security.â€‹Change in fair value of contingent consideration. The change in fair value of contingent consideration is related to earnouts for the Joule Processing LLC (â€œJouleâ€) and Frames Holding B.V. (â€œFramesâ€) acquisitions. The change in fair value of contingent consideration for the three months ended June 30, 2024 and 2023 was $3.8 million and $15.3 million, respectively. The decrease was primarily due to the Giner ELX, Inc. (â€œGinerâ€) and Universal Hydrogen Group Inc. (â€œUHGâ€) earn-outs that were still outstanding during the three months ended June 30, 2023 but subsequently settled during the three months ended June 30, 2024. In addition, the fair value of contingent consideration for Jouleâ€™s earn-out increased significantly during the three months ended June 30, 2023 due to increased probabilities of achievement.â€‹The change in fair value of contingent consideration for the six months ended June 30, 2024 and 2023 was ($5.4) million and $24.1 million, respectively. The decrease was primarily due to changes in assumptions related to future earn-out payments due to renegotiated agreements during the first half of 2024 as well as the settlement of the UHG and Giner earn-outs.â€‹Interest income. Interest income primarily consists of income generated by our investment holdings, restricted cash escrow accounts, and money market accounts. Interest income for the three months ended June 30, 2024 decreased $8.5 million compared to the three months ended June 30, 2023. The decrease during the three months ended June 30, 2024 compared to June 30, 2023 was primarily due to the maturities and sale of the Companyâ€™s available-for-sale portfolio of higher-yielding U.S. treasury securities during 2023.â€‹Interest income for the six months ended June 30, 2024 decreased $16.9 million compared to the six months ended June 30, 2023. The decrease during the six months ended June 30, 2024 compared to June 30, 2023 was primarily due to the maturities and sale of the Companyâ€™s available-for-sale portfolio of higher-yielding U.S. treasury securities during 2023.â€‹Interest expense. Interest expense consists of interest expense related to our long-term debt, convertible senior notes, obligations under finance leases and our finance obligations. Interest expense for the three months ended June 30, 2024 decreased $1.8 million compared to the three months ended June 30, 2023 primarily due to an increase in capitalized interest during the second quarter of 2024.â€‹Interest expense for the six months ended June 30, 2024 decreased $1.1 million compared to the six months ended June 30, 2023 primarily due to an increase in capitalized interest during the second quarter of 2024.â€‹Other expense, net. Other expense, net primarily consists of gains and losses related to energy contracts and foreign currency. Other expense, net for the three months ended June 30, 2024 increased $4.0 million compared to the three months ended June 30, 2023. The increase was primarily due losses related to energy contracts.â€‹Other expense, net for the six months ended June 30, 2024 increased $6.2 million compared to the six months ended June 30, 2023. The increase was primarily due to foreign currency losses as well as losses related to energy contracts.â€‹46 Table of ContentsChange in fair value of equity securities. Change in fair value of equity securities consists of the changes in fair value for equity securities from the purchase date to the end of the period. The change in fair value of equity securities was $0 for the three months ended June 30, 2024 compared to a gain of $3.8 million for the three months ended June 30, 2023. The decrease in the change in fair value of equity securities is due to the Company selling its remaining equity securities during the fourth quarter of 2023.â€‹The change in fair value of equity securities was $0 for the six months ended June 30, 2024 compared to a gain of $8.9 million for the six months ended June 30, 2023. The decrease in the change in fair value of equity securities is due to the Company selling its remaining equity securities during the fourth quarter of 2023.â€‹Loss on equity method investments. Loss on equity method investments consists of our interest in HyVia, which is our 50/50 joint venture with Renault, AccionaPlug, which is our 50/50 joint venture with Acciona, SK Plug Hyverse, which is our 49/51 joint venture with SK E&S, and Clean H2 Infra Fund. For the three months ended June 30, 2024, the Company recorded a loss of $7.2 million on equity method investments compared to a loss of $7.6 million for the three months ended June 30, 2023. These losses are driven from the start-up activities for commercial and production operations of the aforementioned investments.â€‹For the six months ended June 30, 2024, the Company recorded a loss of $20.4 million on equity method investments compared to a loss of $12.9 million for the six months ended June 30, 2023. These losses are driven from the start-up activities for commercial and production operations of the aforementioned investments.â€‹Loss on extinguishment of convertible senior notes. Loss on extinguishment of convertible senior notes arises from the difference between the net carrying amount of the Companyâ€™s Convertible Senior Notes and the fair value of the assets transferred to extinguish the Convertible Senior Notes. For the three months ended June 30, 2024 and June 30, 2023, the Company did not record a loss on extinguishment of convertible senior notes.â€‹For the six months ended June 30, 2024, the Company recorded a loss of $14.0 million on extinguishment of convertible senior notes. These losses are driven from the exchange of $138.8 million in aggregate principal amount of the Companyâ€™s 3.50% Convertible Senior Notes for $140.4 million in aggregate principal amount of the Companyâ€™s new 7.00% Convertible Senior Notes during the first quarter of 2024.â€‹Income Taxesâ€‹The Company recorded $0.4 million of income tax benefit and $0.9 million of income tax benefit for the three months ended June 30, 2024 and 2023, respectively. The Company recorded $0.2 million of income tax benefit and $2.2 million of income tax benefit for the six months ended June 30, 2024 and 2023, respectively. The income tax benefit for the six months ended June 30, 2024 was due to an incremental change to the valuation allowance recorded in foreign jurisdictions. The Company has not changed its overall conclusion with respect to the need for a valuation allowance against its domestic net deferred tax assets, which remain fully reserved, and its valuation allowances recorded in foreign jurisdictions.â€‹The domestic net deferred tax asset generated from the Companyâ€™s net operating loss has been offset by a full valuation allowance because it is more likely than not that the tax benefits of the net operating loss carryforward will not be realized. The Company recognizes accrued interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense.â€‹The Organization for Economic Co-operation and Development Inclusive Framework on Base Erosion and Profit Shifting has proposed a global minimum corporate tax rate of 15% on multi-national corporations, commonly referred to as the Pillar Two rules that has been agreed upon in principle by over 140 countries. Numerous foreign countries have enacted legislation to implement the Pillar Two rules, effective beginning January 1, 2024, or are expected to enact similar legislation. As of June 30, 2024, the Company did not meet the consolidated revenue threshold and is not subject to the GloBE Rules under Pillar Two. The Company will continue to monitor the implementation of rules in the jurisdictions in which it operates.47 Table of Contentsâ€‹Liquidity and Capital Resourcesâ€‹As of June 30, 2024 and December 31, 2023, the Company had $62.4 million and $135.0 million, respectively, of cash and cash equivalents and $956.5 million of restricted cash.â€‹The Company has continued to experience negative cash flows from operations and net losses. The Company incurred net losses of $558.2 million and $443.0 million for the six months ended June 30, 2024 and 2023, respectively, and had an accumulated deficit of $5.0 billion as of June 30, 2024.â€‹A summary of our consolidated sources and uses of cash, cash equivalents and restricted cash was as follows (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Six months endedâ€‹June 30, 2024â€‹June 30, 2023Net cash (used in) provided by:â€‹â€‹â€‹â€‹â€‹ Operating activities$ (422,466)â€‹$ (625,011) Investing activitiesâ€‹ (268,658)â€‹â€‹ 605,487 Financing activitiesâ€‹ 526,751â€‹â€‹ 25,644â€‹$ (164,373)â€‹$ 6,120â€‹Operating Activitiesâ€‹The net cash used in operating activities for the six months ended June 30, 2024 and 2023 was $422.5 million and $625.0 million, respectively. This decrease in net cash used in operating activities was primarily due to a larger decrease in accounts receivable and a smaller increase in inventory, partially offset by an increase in net loss and an increase in inventory valuation adjustments. The Companyâ€™s working capital was $862.8 million as of June 30, 2024, which included unrestricted cash and cash equivalents of $62.4 million.â€‹Investing Activitiesâ€‹The net cash (used in)/provided by investing activities for the six months ended June 30, 2024 and 2023 was ($268.7) million and $605.5 million, respectively. The change from cash inflow to cash outflow from investing activities is primarily due to a decrease in proceeds from maturities of available-for-sale securities during the six months ended June 30, 2024 as the Company no longer holds available-for-sale securities.â€‹Financing Activitiesâ€‹The net cash provided by financing activities for the six months ended June 30, 2024 and 2023 was $526.8 million and $25.6 million, respectively. The increase in cash provided by financing activities was primarily driven by proceeds from the At Market Issuance Sales Agreement during the six months ended June 30, 2024, partially offset by a decrease in proceeds from finance obligations.â€‹The Companyâ€™s working capital was $862.8Â million as of June 30, 2024, which included unrestricted cash and cash equivalents of $62.4Â million and restricted cash of $956.5Â million. On January 17, 2024, the Company entered into the At Market Issuance Sales Agreement (the â€œOriginal ATM Agreementâ€) with B. Riley Securities, Inc. (â€œB. Rileyâ€), pursuant to which the Company may, from time to time, offer and sell through or to B. Riley, as sales agent or principal, shares of the Companyâ€™s common stock, having an aggregate offering price of up to $1.0 billion. As of February 23, 2024, the Company had $697.9 million remaining authorized for issuance under the Original ATM Agreement. On February 23, 2024, the Company and B. Riley entered into Amendment No. 1 to the Original ATM Agreement (the â€œAmendmentâ€ and, together with the Original ATM Agreement, the â€œATM Agreementâ€) to increase the aggregate offering price of shares of the Companyâ€™s common stock available for future issuance under the Original ATM Agreement to $1.0 billion. Under the ATM Agreement, for a period of 18 months, the Company has the right at its sole discretion to direct B. Riley to act on a 48 Table of Contentsprincipal basis and purchase directly from the Company up to $11.0 million of shares of its common stock on any trading day (the â€œMaximum Commitment Advance Purchase Amountâ€) and up to $55.0 million of shares in any calendar week (the â€œMaximum Commitment Advance Purchase Amount Capâ€). On and after June 1, 2024, so long as the Companyâ€™s market capitalization is no less than $1.0 billion, the Maximum Commitment Advance Purchase Amount will remain $11.0 million and the Maximum Commitment Advance Purchase Amount Cap will remain $55.0 million. If the Companyâ€™s market capitalization is less than $1.0 billion on and after June 1, 2024, the Maximum Commitment Advance Purchase Amount will be decreased to $10.0 million and the Maximum Commitment Advance Purchase Amount Cap will be decreased to $30.0 million. Since January 17, 2024, the Company has sold 189,411,442 shares of common stock for gross proceeds of $611.5 million. As of the date of filing of this Quarterly Report on Form 10-Q, the Company has a remaining $690.6 million available under the ATM Agreement.â€‹On July 22, 2024, the Company sold 78,740,157 shares of its common stock at a public offering price of $2.54 per share for net proceeds of $191.0 million after deduction of the underwriting discount and related offering expenses in an underwritten public offering with Morgan Stanley & Co. LLC. The Company granted the underwriter a 30-day option to purchase up to an additional 11,811,023 shares of common stock at the public offering price, less the underwriting discount.â€‹The Company believes that its working capital and cash position, together with its right to direct B. Riley to purchase shares directly from the Company under the ATM Agreement and its public offering of common stock completed in July 2024, will be sufficient to fund its on-going operations for a period of at least 12 months subsequent to the issuance of the accompanying unaudited interim condensed consolidated financial statements.â€‹The Companyâ€™s significant obligations consisted of the following as of June 30, 2024:â€‹(i)Operating and finance leases totaling $330.7 million and $40.7 million, respectively, of which $66.4 million and $10.2 million, respectively, are due within the next 12 months. These leases are primarily related to sale/leaseback agreements entered into with various financial institutions to facilitate the Companyâ€™s commercial transactions with key customers. See Note 17, â€œOperating and Finance Lease Liabilitiesâ€, for more details.â€‹(ii)Finance obligations totaling $330.7 million, of which approximately $85.6 million is due within the next 12 months. Finance obligations consist primarily of debt associated with the sale of future revenues and failed sale/leaseback transactions. See Note 18, â€œFinance Obligationsâ€, for more details.â€‹(iii)Convertible senior notes totaling $208.6 million, none of which is due within the next twelve months. See Note 10, â€œConvertible Senior Notesâ€, for more details.â€‹(iv)Capital commitments totaling $23.7 million related to the Companyâ€™s equity method investments, of which all $23.7 million is due within the next 12 months. See Note 16, â€œInvestmentsâ€, for more details.â€‹(v)Future payments under non-cancelable unconditional purchase obligations with a remaining term in excess of one year totaling $45.9 million, of which $31.2 million is due within the next 12 months. See Note 19, â€œCommitments and Contingenciesâ€, for more details.â€‹(vi)Contingent consideration with an estimated fair value of approximately $90.6 million, of which $37.9 million is due within the next 12 months. See Note 15, â€œFair Value Measurementsâ€, for more details.â€‹Public and Private Offerings of Equity and Debt â€‹At Market Issuance Sales Agreementâ€‹49 Table of ContentsAs described above, on January 17, 2024, the Company entered into an At Market Issuance Sales Agreement with B. Riley, pursuant to which the Company may, from time to time, offer and sell through or to B. Riley, as sales agent or principal, shares of the Companyâ€™s common stock, having an aggregate offering price of up to $1.0 billion. As of February 23, 2024, the Company had $697.9 million remaining authorized for issuance under the ATM Agreement. On February 23, 2024, the Company amended the ATM Agreement to increase the amount of shares of the Companyâ€™s common stock available for sale under the ATM Agreement to $1.0 billion. During the three months ended June 30, 2024, the Company sold 96,812,695 shares of common stock at a weighted-average sales price of $2.80 per share for gross proceeds of $271.5 million with related issuance costs of $4.8 million. During the six months ended June 30, 2024, the Company sold 176,365,870 shares of common stock at a weighted-average sales price of $3.29 per share for gross proceeds of $580.8 million with related issuance costs of $8.7 million.â€‹Public Offering of Common Stockâ€‹On July 22, 2024, the Company sold 78,740,157 shares of its common stock at a public offering price of $2.54 per share for net proceeds of $191.0 million after deduction of the underwriting discount and related offering expenses in an underwritten public offering with Morgan Stanley & Co. LLC. The Company granted the underwriter a 30-day option to purchase up to an additional 11,811,023 shares of common stock at the public offering price, less the underwriting discount.â€‹Secured Debtâ€‹During the second quarter of 2024, the Company began repaying principal and interest on a $2.0 million allowance for tenant work related to its manufacturing facility in Slingerlands, NY. In accordance with ASC 842, Leases (â€œASC 842â€), the allowance is treated as a freestanding financial instrument separate from the facility lease and is accounted for as long-term debt. Plug is required to pay $249 thousand per year during the term which began coinciding with the facility lease commencement date on January 1, 2023. The terms of the allowance state that interest will accrue at 4.5% per annum over a 10 year period. The debt is scheduled to mature in 2032. During the three months ended June 30, 2024 and 2023 the Company repaid $42 thousand and $40 thousand of principal related to this outstanding debt. During the six months ended June 30, 2024 and 2023 the Company repaid $82 thousand and $80 thousand of principal related to this outstanding debt. The outstanding principal and carrying value of the debt was $1.8 million as of June 30, 2024.â€‹In June 2020, the Company acquired debt as part of its acquisition of United Hydrogen Group Inc. During the three months ended June 30, 2024 and 2023, the Company repaid $0.3 million and $5.1 million of principal related to this outstanding debt. During the six months ended June 30, 2024 and 2023, the Company repaid $0.6 million and $5.4 million of principal related to this outstanding debt. The outstanding carrying value of the debt was $3.7 million as of June 30, 2024. The remaining outstanding principal on the debt was $4.9 million and the unamortized debt discount was $1.2 million, bearing varying interest rates ranging from 7.3% to 7.6%. The debt is scheduled to mature in 2026. As of June 30, 2024, the principal balance is due at each of the following dates as follows (in thousands):â€‹â€‹â€‹â€‹December 31, 2024â€‹ 2,757December 31, 2025â€‹ 1,200December 31, 2026â€‹ 900Total outstanding principal$ 4,857â€‹7.00% Convertible Senior Notesâ€‹On March 20, 2024, the Company entered into separate, privately negotiated exchange agreements with certain holders of the Companyâ€™s outstanding 3.75% Convertible Senior Notes pursuant to which the Company exchanged $138.8 million in aggregate principal amount of the 3.75% Convertible Senior Notes, and accrued and unpaid interest of $1.6 million on such notes to, but excluding, March 20, 2024, for $140.4 million in aggregate principal amount of the Companyâ€™s new 7.00% Convertible Senior Notes due 2026, in each case, pursuant to the exemption from registration provided by Section 4(a)(2) under the Securities Act of 1933, as amended (the â€œSecurities Actâ€). Following the exchange, 50 Table of Contentsapproximately $58.5 million in aggregate principal amount of the 3.75% Convertible Senior Notes remained outstanding with terms unchanged.â€‹This transaction was accounted for as an extinguishment of debt. As a result, the Company recorded a loss on extinguishment of debt of $14.0 million in the unaudited interim condensed consolidated statement of operations during the first quarter of 2024. Loss on extinguishment of debt arises from the difference between the net carrying amount of the Companyâ€™s debt and the fair value of the assets transferred to extinguish the debt.â€‹The 7.00% Convertible Senior Notes are the Companyâ€™s senior, unsecured obligations and are governed by the terms of an Indenture (the â€œIndentureâ€), dated as of March 20, 2024, entered into between the Company and Wilmington Trust, National Association, as trustee. The 7.00% Convertible Senior Notes bear cash interest at the rate of 7.00% per annum, payable semi-annually in arrears on June 1 and December 1 of each year, beginning on June 1, 2024, to holders of record at the close of business on the preceding May 15 and November 15, respectively. The 7.00% Convertible Senior Notes mature on June 1, 2026, unless earlier converted or redeemed or repurchased by the Company. â€‹The conversion rate for the 7.00% Convertible Senior Notes is initially 235.4049 shares of the Companyâ€™s common stock per $1,000 principal amount of 7.00% Convertible Senior Notes, which is equivalent to an initial conversion price of approximately $4.25 per share of common stock, which represents a premium of approximately 20% over the last reported sale price of Plugâ€™s common stock on the Nasdaq Capital Market on March 12, 2024. The conversion rate and conversion price are subject to customary adjustments upon the occurrence of certain events. Prior to the close of business on the business day immediately preceding December 1, 2025, the 7.00% Convertible Senior Notes will be convertible at the option of the holders of the 7.00% Convertible Senior Notes only upon the satisfaction of specified conditions and during certain periods. On or after December 1, 2025 until the close of business on the second scheduled trading day immediately preceding the maturity date, the 7.00% Convertible Senior Notes will be convertible at the option of the holders of the 7.00% Convertible Senior Notes at any time regardless of these conditions. Conversions of the 7.00% Convertible Senior Notes will be settled in cash, shares of the Companyâ€™s common stock, or a combination thereof, at the Companyâ€™s election. â€‹Subject to certain exceptions and subject to certain conditions, holders of the 7.00% Convertible Senior Notes may require the Company to repurchase their 7.00% Convertible Senior Notes upon the occurrence of a â€œFundamental Changeâ€ (as defined in the Indenture) prior to maturity for cash at a repurchase price equal to 100% of the principal amount of the 7.00% Convertible Senior Notes to be repurchased plus accrued and unpaid interest, if any, to, but excluding, the repurchase date. â€‹The 7.00% Convertible Senior Notes will be redeemable, in whole or in part, at the Companyâ€™s option at any time on or after June 5, 2025, at a cash redemption price equal to the principal amount of the 7.00% Convertible Senior Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, but only if the last reported sale price per share of the Companyâ€™s common stock exceeds 130% of the then-applicable conversion price then in effect for at least 20 trading days (whether or not consecutive), including at least one of the three trading days immediately preceding the date the Company sends the related redemption notice, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company sends such redemption notice.â€‹In certain circumstances, conversions of 7.00% Convertible Senior Notes in connection with â€œMake-Whole Fundamental Changesâ€ (as defined in the Indenture) or conversions of 7.00% Convertible Senior Notes called for redemption may result in an increase to the conversion rate, provided that the conversion rate will not exceed 282.4859 shares of the Companyâ€™s common stock per $1,000 principal amount of 7.00% Convertible Senior Notes, subject to adjustment. In such circumstance, a maximum of 39,659,890 shares of common stock, subject to adjustment, may be issued upon conversion of the 7.00% Convertible Senior Notes. There were no conversions of the 7.00% Convertible Senior Notes during the three and six months ended June 30, 2024.â€‹51 Table of ContentsThe 7.00% Convertible Senior Notes consisted of the following (in thousands):â€‹â€‹â€‹â€‹â€‹June 30,â€‹2024Principal amounts:â€‹â€‹ Principal$ 140,396 Unamortized debt premium, net of offering costs (1)â€‹ 10,126 Net carrying amount$ 150,522(1)Included in the unaudited interim condensed consolidated balance sheets within convertible senior notes, net and amortized over the remaining life of the notes using the effective interest rate method.â€‹The following table summarizes the total interest expense and effective interest rate related to the 7.00% Convertible Senior Notes for the three and six months ended June 30, 2024 (in thousands, except for the effective interest rate):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Three months endedâ€‹Six months endedâ€‹Â Â Â Â June 30, 2024Â Â Â Â June 30, 2024Interest expenseâ€‹$ 2,450â€‹$ 2,746Amortization of premiumâ€‹â€‹ (1,314)â€‹â€‹ (1,473)Totalâ€‹$ 1,136â€‹$ 1,273Effective interest rateâ€‹â€‹3.0%â€‹â€‹3.0%â€‹The estimated fair value of the 7.00% Convertible Senior Notes as of June 30, 2024 was approximately $126.3 million. The fair value estimation was primarily based on a quoted price in an active market.â€‹3.75% Convertible Senior Notesâ€‹On May 18, 2020, the Company issued $200.0 million in aggregate principal amount of 3.75% Convertible Senior Notes due June 1, 2025 in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. On May 29, 2020, the Company issued an additional $12.5 million in aggregate principal amount of 3.75% Convertible Senior Notes. On March 12, 2024, the Company exchanged $138.8 million in aggregate principal amount of the 3.75% Convertible Senior Notes for $140.4 million in aggregate principal amount of the Companyâ€™s new 7.00% Convertible Senior Notes due 2026. Following the exchange, approximately $58.5 million in aggregate principal amount of the 3.75% Convertible Senior Notes remained outstanding with terms unchanged. There were no conversions of the 3.75% Convertible Senior Notes during the three and six months ended June 30, 2024 and 2023.â€‹The 3.75% Convertible Senior Notes consisted of the following (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹June 30,â€‹December 31,â€‹2024â€‹2023Principal amounts:â€‹â€‹â€‹â€‹â€‹ Principal$ 58,462â€‹$ 197,278 Unamortized debt issuance costs (1)â€‹ (408)â€‹â€‹ (2,014) Net carrying amount$ 58,054â€‹$ 195,264(1)Included in the unaudited interim condensed consolidated balance sheets within convertible senior notes, net and amortized over the remaining life of the notes using the effective interest rate method.â€‹52 Table of ContentsThe following table summarizes the total interest expense and effective interest rate related to the 3.75% Convertible Senior Notes for the three and six months ended June 30, 2024 and 2023 (in thousands, except for the effective interest rate):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Three months endedâ€‹Six months endedâ€‹Â Â Â Â June 30, 2024Â Â Â Â June 30, 2023â€‹June 30, 2024Â Â Â Â June 30, 2023Interest expenseâ€‹$ 548â€‹$ 1,849â€‹$ 2,238â€‹$ 3,698Amortization of debt issuance costsâ€‹â€‹ 108â€‹â€‹ 334â€‹â€‹ 424â€‹â€‹ 665Totalâ€‹$ 656â€‹$ 2,183â€‹$ 2,662â€‹$ 4,363Effective interest rateâ€‹â€‹4.5%â€‹â€‹4.5%â€‹â€‹4.5%â€‹â€‹4.5%â€‹The estimated fair value of the 3.75% Convertible Senior Notes as of June 30, 2024 was approximately $54.5 million. The fair value estimation was primarily based on a quoted price in an active market.â€‹Capped Call â€‹In conjunction with the pricing of the 3.75% Convertible Senior Notes, the Company entered into privately negotiated capped call transactions (the â€œ3.75% Notes Capped Callâ€) with certain counterparties at a price of $16.2 million. The 3.75% Notes Capped Call covers, subject to anti-dilution adjustments, the aggregate number of shares of the Companyâ€™s common stock that underlie the initial 3.75% Convertible Senior Notes and is generally expected to reduce potential dilution to the Companyâ€™s common stock upon any conversion of the 3.75% Convertible Senior Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of the converted notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. The cap price of the 3.75% Notes Capped Call is initially $6.7560 per share, which represents a premium of approximately 60% over the last then-reported sale price of the Companyâ€™s common stock of $4.11 per share on the date of the transaction and is subject to certain adjustments under the terms of the 3.75% Notes Capped Call. The 3.75% Notes Capped Call becomes exercisable if the conversion option is exercised.The net cost incurred in connection with the 3.75% Notes Capped Call was recorded as a reduction to additional paid-in capital in the unaudited interim condensed consolidated balance sheets. The book value of the 3.75% Notes Capped Call is not remeasured.â€‹5.5% Convertible Senior Notes and Common Stock Forwardâ€‹In March 2018, the Company issued $100.0Â million in aggregate principal amount of theÂ 5.5% Convertible Senior Notes due on March 15, 2023, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act, which have been fully repaid. In connection with the issuance of the 5.5% Convertible Senior Notes, the Company entered into a forward stock purchase transaction (the â€œCommon Stock Forwardâ€), pursuant to which the Company agreed to purchase 14,397,906 shares of its common stock for settlement on or about MarchÂ 15, 2023. On May 18, 2020, the Company amended and extended the maturity of the Common Stock Forward to June 1, 2025. The number of shares of common stock that the Company will ultimately repurchase under the Common Stock Forward is subject to customary anti-dilution adjustments. The Common Stock Forward is subject to early settlement or settlement with alternative consideration in the event of certain corporate transactions.â€‹The net cost incurred in connection with the Common Stock Forward of $27.5 million was recorded as an increase in treasury stock in the unaudited interim condensed consolidated balance sheets. The related shares were accounted for as a repurchase of common stock. The book value of the Common Stock Forward is not remeasured.â€‹There were no shares of common stock that settled in connection with the Common Stock Forward during the three and six months ended June 30, 2024 and 2023.53 Table of Contentsâ€‹Amazon Transaction Agreement in 2022â€‹On August 24, 2022, the Company and Amazon entered into a Transaction Agreement (the â€œ2022 Amazon Transaction Agreementâ€), under which the Company concurrently issued to Amazon.com NV Investment Holdings LLC, a wholly owned subsidiary of Amazon, a warrant (the â€œ2022 Amazon Warrantâ€) to acquire up to 16,000,000 shares (the â€œ2022 Amazon Warrant Sharesâ€) of the Companyâ€™s common stock, subject to certain vesting events described below. The Company and Amazon entered into the 2022 Amazon Transaction Agreement in connection with a concurrent commercial arrangement under which Amazon agreed to purchase hydrogen fuel from the Company through August 24, 2029.â€‹1,000,000 of the 2022 Amazon Warrant Shares vested immediately upon issuance of the 2022 Amazon Warrant. 15,000,000 of the 2022 Amazon Warrant Shares will vest in multiple tranches over the 7-year term of the 2022 Amazon Warrant based on payments made to the Company directly by Amazon or its affiliates, or indirectly through third parties, with 15,000,000 of the 2022 Amazon Warrant Shares fully vesting if Amazon-related payments of $2.1 billion are made in the aggregate. The exercise price for the first 9,000,000 2022 Amazon Warrant Shares is $22.9841 per share and the fair value on the grant date was $20.36. The exercise price for the remaining 7,000,000 2022 Amazon Warrant Shares will be an amount per share equal to 90% of the 30-day volume weighted average share price of the Companyâ€™s common stock as of the final vesting event that results in full vesting of the first 9,000,000 2022 Amazon Warrant Shares. The 2022 Amazon Warrant is exercisable through August 24, 2029. â€‹Upon the consummation of certain change of control transactions (as defined in the 2022 Amazon Warrant) prior to the vesting of at least 60% of the aggregate 2022 Amazon Warrant Shares, the 2022 Amazon Warrant will automatically vest and become exercisable with respect to an additional number of 2022 Amazon Warrant Shares such that 60% of the aggregate 2022 Amazon Warrant Shares shall have vested. If a change of control transaction is consummated after the vesting of at least 60% of the aggregate 2022 Amazon Warrant Shares, then no acceleration of vesting will occur with respect to any of the unvested 2022 Amazon Warrant Shares as a result of the transaction. The exercise price and the 2022 Amazon Warrant Shares issuable upon exercise of the 2022 Amazon Warrant are subject to customary antidilution adjustments. â€‹On August 24, 2022, 1,000,000 of the 2022 Amazon Warrant Shares associated with tranche 1 vested. The warrant fair value associated with the vested shares of tranche 1 of $20.4 million was capitalized to contract assets based on the grant date fair value and is subsequently amortized ratably as a reduction to revenue based on the Companyâ€™s estimate of revenue over the term of the agreement. As of June 30, 2024 the balance of the contract asset related to tranche 1 was $19.0 million which is recorded in contract assets in the Companyâ€™s unaudited interim condensed consolidated balance sheet. During the second quarter of 2023, all 1,000,000 of the 2022 Amazon Warrant Shares associated with tranche 2 vested. The warrant fair value associated with the vested shares of tranche 2 was $20.4 million and was determined on the grant date of August 24, 2022. As of June 30, 2024 the balance of the contract asset related to tranche 2 was $19.0 million. Tranche 3 will vest over the next $1.0 billion of collections from Amazon and its affiliates. The grant date fair value of tranche 3 will also be amortized ratably as a reduction to revenue based on the Companyâ€™s estimate of revenue over the term of the agreement. As of June 30, 2024 the balance of the contract asset related to tranche 3 was $1.5 million. Because the exercise price has yet to be determined, the fair value of tranche 4 will be remeasured at each reporting period end and amortized ratably as a reduction to revenue based on the Companyâ€™s estimate of revenue over the term of the agreement.â€‹As of June 30, 2024 and December 31, 2023, 2,000,000 of the 2022 Amazon Warrant Shares had vested and the 2022 Amazon Warrant had not been exercised. During the three and six months ended June 30, 2024 and 2023, there were no exercises with respect to the 2022 Amazon Warrant. The total amount of provision for common stock warrants recorded as a reduction of revenue for the 2022 Amazon Warrant during the three months ended June 30, 2024 and 2023 was $1.7 million and $1.5 million, respectively. The total amount of provision for common stock warrants recorded as a reduction of revenue for the 2022 Amazon Warrant during the six months ended June 30, 2024 and 2023 was $2.4 million and $2.6 million, respectively.â€‹54 Table of ContentsThe assumptions used to calculate the valuations of the 2022 Amazon Warrant as of August 24, 2022 and June 30, 2024 are as follows:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Tranches 1-3Â Â Â Tranche 4â€‹â€‹August 24, 2022â€‹June 30, 2024Risk-free interest rateâ€‹3.15%â€‹4.24%Volatilityâ€‹75.00%â€‹90.00%Expected average term (years)â€‹7.00â€‹1.15Exercise priceâ€‹$22.98 â€‹$2.10 Stock priceâ€‹$20.36 â€‹$2.33 â€‹Amazon Transaction Agreement in 2017â€‹On April 4, 2017, the Company and Amazon entered into a Transaction Agreement (the â€œ2017 Amazon Transaction Agreementâ€), pursuant to which the Company agreed to issue to Amazon.com NV Investment Holdings LLC, a warrant (the â€œ2017 Amazon Warrantâ€) to acquire up to 55,286,696 shares (the â€œ2017 Amazon Warrant Sharesâ€), subject to certain vesting events. The Company and Amazon entered into the 2017 Amazon Transaction Agreement in connection with existing commercial agreements between the Company and Amazon with respect to the deployment of the Companyâ€™s GenKey fuel cell technology at Amazon distribution centers. The vesting of the 2017 Amazon Warrant Shares was conditioned upon payments made by Amazon or its affiliates (directly or indirectly through third parties) pursuant to existing commercial agreements. On December 31, 2020, the Company waived the remaining vesting conditions under the 2017 Amazon Warrant, which resulted in the immediate vesting of all of the third tranche of the 2017 Amazon Warrant Shares.â€‹As of June 30, 2024 and 2023, all 55,286,696 of the 2017 Amazon Warrant Shares had vested and the 2017 Amazon Warrant was exercised with respect to 34,917,912 shares of the Companyâ€™s common stock. During the three and six months ended June 30, 2024 and 2023, there were no exercises with respect to the 2017 Amazon Warrant. The total amount of provision for common stock warrants recorded as a reduction of revenue for the 2017 Amazon Warrant during the three months ended June 30, 2024 and 2023 was $0.1 million and $0.1 million, respectively. The total amount of provision for common stock warrants recorded as a reduction of revenue for the 2017 Amazon Warrant during the six months ended June 30, 2024 and 2023 was $0.2 million and $0.2 million, respectively.â€‹Walmart Transaction Agreementâ€‹On July 20, 2017, the Company and Walmart entered into a Transaction Agreement (the â€œWalmart Transaction Agreementâ€), pursuant to which the Company agreed to issue to Walmart a warrant (the â€œWalmart Warrantâ€) to acquire up to 55,286,696 shares of the Companyâ€™s common stock, subject to certain vesting events (the â€œWalmart Warrant Sharesâ€). The Company and Walmart entered into the Walmart Transaction Agreement in connection with existing commercial agreements between the Company and Walmart with respect to the deployment of the Companyâ€™s GenKey fuel cell technology across various Walmart distribution centers. The existing commercial agreements contemplate, but do not guarantee, future purchase orders for the Companyâ€™s fuel cell technology. The vesting of the warrant shares was conditioned upon payments made by Walmart or its affiliates (directly or indirectly through third parties) pursuant to transactions entered into after January 1, 2017 under existing commercial agreements.â€‹The exercise price for the first and second tranches of Walmart Warrant Shares was $2.1231 per share. After Walmart has made payments to the Company totaling $200.0 million, the third tranche of 20,368,784 Walmart Warrant Shares will vest in eight installments of 2,546,098 Walmart Warrant Shares each time Walmart or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $400.0 million in the aggregate. The exercise price of the third tranche of the Walmart Warrant Shares is $6.28 per share, which was determined pursuant to the terms of the Walmart Warrant as an amount equal to 90% of the 30-day volume weighted average share price of the Companyâ€™s common stock as of October 30, 2023, the final vesting date of the second tranche of the Walmart Warrant Shares. The Walmart Warrant is exercisable through July 20, 2027. The Walmart Warrant provides for net share settlement that, if elected by the holder, will reduce the number of 55 Table of Contentsshares issued upon exercise to reflect net settlement of the exercise price. The Walmart Warrant provides for certain adjustments that may be made to the exercise price and the number of shares of common stock issuable upon exercise due to customary anti-dilution provisions based on future events. The Walmart Warrant is classified as an equity instrument. As of June 30, 2024, the balance of the contract asset related to the Walmart Warrant was $5.4 million.â€‹As of June 30, 2024 and December 31, 2023, 37,464,010 and 34,917,912 of the Walmart Warrant Shares had vested, respectively, and the Walmart Warrant was exercised with respect to 13,094,217 shares of the Companyâ€™s common stock. During the three and six months ended June 30, 2024 and 2023, there were no exercises with respect to the Walmart Warrant. The total amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the three months ended June 30, 2024 was $4.0 million compared to a negative provision for common stock warrants recorded as an addition to revenue of $1.5 million for the three months ended June 30, 2023. The total amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the six months ended June 30, 2024 and 2023 was $7.7 million and $11.5 million, respectively.â€‹Operating and Finance Lease Liabilitiesâ€‹As of June 30, 2024, the Company had operating leases, as lessee, primarily associated with sale/leaseback transactions that are partially secured by restricted cash and security deposits (see also Note 19, â€œCommitments and Contingenciesâ€) as summarized below. These leases expire over the next one to seven years. Minimum rent payments under operating leases are recognized on a straight-line basis over the term of the lease.â€‹Leases contain termination clauses with associated penalties, the amount of which cause the likelihood of cancellation to be remote. At the end of the lease term, the leased assets may be returned to the lessor by the Company, the Company may negotiate with the lessor to purchase the assets at fair market value, or the Company may negotiate with the lessor to renew the lease at market rental rates. No residual value guarantees are contained in the leases. No financial covenants are contained within the lease; however, the lease contains customary operational covenants such as the requirement that the Company properly maintain the leased assets and carry appropriate insurance. The leases include credit support in the form of either cash, collateral or letters of credit. See Note 19, â€œCommitments and Contingenciesâ€, for a description of cash held as security associated with the leases.â€‹The Company has finance leases associated with its property and equipment in Latham, New York and at fueling customer locations.â€‹Finance Obligationâ€‹The Company has sold future services to be performed associated with certain sale/leaseback transactions and recorded the balance as a finance obligation. The outstanding balance of this obligation as of June 30, 2024 was $314.8 million, $76.7 million and $238.1 million of which was classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheet. The outstanding balance of this obligation at December 31, 2023 was $350.8Â million, $74.0Â million and $276.8Â million of which was classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheet. The amount is amortized using the effective interest method. Interest expense recorded related to finance obligations for the three months ended June 30, 2024 and 2023 was $9.4 million and $9.8 million, respectively. Interest expense recorded related to finance obligations for the six months ended June 30, 2024 and 2023 was $19.4 million and $19.0 million, respectively.â€‹In prior periods, the Company entered into sale/leaseback transactions that were accounted for as financing transactions and reported as part of finance obligations. The outstanding balance of finance obligations related to sale/leaseback transactions as of June 30, 2024 was $15.9 million, $8.9 million and $7.0 million of which was classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheet. The outstanding balance of this obligation at December 31, 2023 was $17.6 million, $10.0 million and $7.6 million of which was classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheet.â€‹56 Table of ContentsThe fair value of the Companyâ€™s total finance obligations approximated their carrying value as of June 30, 2024 and December 31, 2023.â€‹Restricted Cash â€‹In connection with certain of the above noted sale/leaseback agreements, cash of $525.6 million and $573.5 million was required to be restricted as security as of June 30, 2024 and December 31, 2023, respectively, which restricted cash will be released over the lease term. As of June 30, 2024 and December 31, 2023, the Company also had certain letters of credit backed by security deposits totaling $340.7 million and $370.7 million, respectively, of which $305.6 million and $340.0 million are security for the above noted sale/leaseback agreements, respectively, and $35.1 million and $30.7 million are customs related letters of credit, respectively. â€‹As of June 30, 2024 and December 31, 2023, the Company had $77.1 million and $76.8 million held in escrow related to the construction of certain hydrogen production plants, respectively.â€‹The Company also had $0.1 million and $1.2 million of consideration held by our paying agent in connection with each of the Joule and CIS acquisitions, respectively, reported as restricted cash as of June 30, 2024, with a corresponding accrued liability on the Companyâ€™s unaudited interim condensed consolidated balance sheet. Additionally, the Company had $11.8 million and $11.7 million in restricted cash as collateral resulting from the Frames acquisition as of June 30, 2024 and December 31, 2023, respectively.â€‹Guaranteeâ€‹On May 30, 2023, our joint venture, HyVia, entered into a government grant agreement with Bpifrance. As part of the agreement, our wholly-owned subsidiary, Plug Power France, was required to issue a guarantee to Bpifrance in the amount of â,¬20 million through the end of January 2027. Plug Power France is liable to the extent of the guarantee for sums due to Bpifrance from HyVia under the agreement based on the difference between the total amount paid by Bpifrance and the final amount certified by HyVia and Bpifrance. As part of the agreement, there are certain milestones that HyVia is required to meet, and the nonperformance of these milestones or termination of this agreement could result in this guarantee being called upon. As of June 30, 2024, no payments related to this guarantee have been made by the Company and Plug Power France did not record a liability for this guarantee as the likelihood of the guarantee being called upon is remote.â€‹Unconditional Purchase Obligationsâ€‹The Company has entered into certain offâ€“balance sheet commitments that require the future purchase of goods or services (â€œunconditional purchase obligationsâ€). The Companyâ€™s unconditional purchase obligations primarily consist of supplier arrangements, take or pay contracts and service agreements. For certain vendors, the Companyâ€™s unconditional obligation to purchase a minimum quantity of raw materials at an agreed upon price is fixed and determinable; while certain other raw material costs will vary due to product forecasting and future economic conditions.â€‹Future payments under non-cancelable unconditional purchase obligations with a remaining term in excess of one year as of June 30, 2024, were as follows (in thousands):â€‹â€‹â€‹â€‹â€‹Remainder of 2024Â Â Â Â $ 27,1852025â€‹â€‹ 8,0232026â€‹â€‹ 8,0232027â€‹â€‹ 2,6382028â€‹â€‹ â€”2029 and thereafter â€‹â€‹ â€”Totalâ€‹â€‹ 45,869â€‹57 Table of ContentsRestructuringâ€‹In February 2024, in a strategic move to enhance our financial performance and ensure long-term value creation in a competitive market, we approved a comprehensive initiative that encompasses a broad range of measures, including operational consolidation, strategic workforce adjustments, and various other cost-saving actions (the â€œRestructuring Planâ€). These measures are aimed at increasing efficiency, improving scalability, and maintaining our leadership position in the renewable energy industry. We began executing the Restructuring Plan in February 2024 and expect the Restructuring Plan to be completed in the second half of 2024, subject to local law and consultation requirements.â€‹The determination of when we accrue for involuntary termination benefits under restructuring plans depends on whether the termination benefits are provided under an ongoing benefit arrangement or under a one-time benefit arrangement. We account for involuntary termination benefits that are provided pursuant to one-time benefit arrangements in accordance with ASC 420, Exit or Disposal Cost Obligations (â€œASC 420â€) whereas involuntary termination benefits that are part of an ongoing written or substantive plan are accounted for in accordance with ASC 712, Nonretirement Postemployment Benefits (â€œASC 712â€). We accrue a liability for termination benefits under ASC 420 in the period in which the plan is communicated to the employees and the plan is not expected to change significantly. For ongoing benefit arrangements, inclusive of statutory requirements, we accrue a liability for termination benefits under ASC 712 when the existing situation or set of circumstances indicates that an obligation has been incurred, it is probable the benefits will be paid, and the amount can be reasonably estimated. The restructuring charges that have been incurred but not yet paid are recorded in accrued expenses and other current liabilities in our unaudited interim condensed consolidated balance sheets, as they are expected to be paid within the next twelve months.â€‹During the three months ended June 30, 2024, we incurred $1.6 million in restructuring costs recorded as severance expenses of $1.6 million and other restructuring costs of $49 thousand in the restructuring financial statement line item in the unaudited interim condensed consolidated statement of operations. During the six months ended June 30, 2024, we incurred $7.6 million in restructuring costs recorded as severance expenses of $6.8 million and other restructuring costs of $0.8 million in the restructuring financial statement line item in the unaudited interim condensed consolidated statement of operations. We expect to incur another $0.1 million in restructuring costs in subsequent quarters, which are primarily related to severance expenses, and are expected to be incurred during the third quarter of 2024. The actual timing and amount of costs associated with these restructuring actions may differ from our current expectations and estimates and such differences may be material.â€‹Severance expense recorded during the three and six months ended June 30, 2024 in accordance with ASC 420 was a result of the separation of full-time employees associated with the Restructuring Plan. As of June 30, 2024, $1.6 million of accrued severance-related costs were included in accrued expenses in our unaudited interim condensed consolidated balance sheets and are expected to be paid during the third quarter of 2024. Other costs are represented by (1) $0.2 million of legal and professional services costs, and (2) $0.6 million of other one-time employee termination benefits. As of June 30, 2024, $28 thousand of accrued other costs were included in accrued expenses in our unaudited interim condensed consolidated balance sheets and are expected to be paid during the third quarter of 2024.â€‹58 Table of ContentsExtended Maintenance Contracts â€‹On a quarterly basis, we evaluate any potential losses related to our extended maintenance contracts for sales of equipment, related infrastructure and other that have been sold. The following table shows the roll forward of balances in the accrual for loss contracts, including changes due to the provision for loss accrual, releases to service cost of sales, increase to loss accrual related to customer warrants, and foreign currency translation adjustment (in thousands):â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Six months endedâ€‹Year endedâ€‹June 30, 2024Â Â December 31, 2023Beginning balance$ 137,853â€‹$81,066 Provision for loss accrualâ€‹ 32,135â€‹â€‹85,375 Releases to service cost of salesâ€‹ (24,937)â€‹â€‹(29,713)Increase to loss accrual related to customer warrantsâ€‹ 94â€‹â€‹ 971Foreign currency translation adjustmentâ€‹ (149)â€‹â€‹ 154Ending balance$ 144,996â€‹$137,853 â€‹The Company increased its loss accrual to $145.0 million for the six months ended June 30, 2024 primarily due to continued cost increases of GenDrive labor, parts and related overhead coupled with new GenDrive contracts entered into requiring provisions to be set up. As a result, the Company increased its estimated projected costs.â€‹Critical Accounting Estimatesâ€‹The consolidated financial statements of the Company have been prepared in conformity with U.S. generally accepted accounting principles, which require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, we evaluate our estimates and judgments, including but not limited to those related to revenue recognition, valuation of inventories, intangible assets, valuation of long-lived assets, accrual for service loss contracts, operating and finance leases, allowance for doubtful accounts receivable, unbilled revenue, common stock warrants, stock-based compensation, income taxes, and contingencies. We base our estimates and judgments on historical experience and on various other factors and assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about (1) the carrying values of assets and liabilities and (2) the amount of revenue and expenses realized that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.â€‹There have been no changes in our critical accounting estimates from those reported in our 2023 Form 10-K.â€‹Recent Accounting Pronouncements â€‹Recently Adopted Accounting Guidanceâ€‹There have been no significant changes in our reported financial position or results of operations and cash flows resulting from the adoption of new accounting pronouncements.â€‹Recently Issued and Not Yet Adopted Accounting Pronouncementsâ€‹Other than the standards mentioned in our 2023 Form 10-K, all issued but not yet effective accounting and reporting standards as of June 30, 2024 are either not applicable to the Company or are not expected to have a material impact on the Company.â€‹59 Table of ContentsItem 3 â€” Quantitative and Qualitative Disclosures about Market Riskâ€‹There has been no material change from the information provided in the Companyâ€™s 2023 Form 10-K under the section titled Item 7A, â€œQuantitative and Qualitative Disclosures About Market Riskâ€.â€‹Item 4 â€” Controls and Proceduresâ€‹Evaluation of Disclosure Controls and Proceduresâ€‹We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports that we file or submit under the Exchange Act, are recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer (our principal executive officer) and Chief Financial Officer (our principal financial officer) as appropriate, to allow for timely decisions regarding required disclosure. Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of June 30, 2024.â€‹Remediation of Material Weaknessesâ€‹In late 2023 and during the first six months of 2024, with the oversight of the Audit Committee of the Board of Directors, the Company executed its remediation plan to address the material weaknesses identified in Item 9A of our annual report on Form 10-K for the year ended December 31, 2023 related to (1) inventory reserves, specifically surrounding the calculation of excess and obsolete inventory and the lower of cost or net realizable value adjustments of inventory, and (2) long-lived asset impairment related to the review and calculation of the carrying value of asset groupings and projections used as a basis for performing our impairment assessments of certain asset groups.â€‹The Company took the following actions during the execution of its remediation plan:â—Implemented inventory valuation controls at all locations and communicated the requirements for effectively operating such controls to all businesses; andâ—Implemented controls over the review of the calculations associated with the Companyâ€™s long-lived asset impairment assessment at a more precise level of operation.â€‹Management has determined, through its current year testing, that these controls have been designed and implemented effectively and that these controls operated effectively for a sufficient period of time to conclude that the previously disclosed material weaknesses related to inventory valuation and long-lived asset impairment identified as of December 31, 2023 have been remediated as of the date of the filing of this Quarterly Report on Form 10-Q.â€‹Changes in Internal Control over Financial Reportingâ€‹There were no changes during the quarter ended June 30, 2024 in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.â€‹â€‹60 Table of ContentsPart II. OTHER INFORMATIONâ€‹Item 1 â€“ Legal Proceedingsâ€‹See Note 19, â€œCommitments and Contingenciesâ€, within Item 1 of this Quarterly Report on Form 10-Q for a discussion regarding material legal proceedings.â€‹Except as otherwise noted, there have been no material developments in legal proceedings. For previously reported information about legal proceedings, refer to Part I, Item 3, â€œLegal Proceedingsâ€, of the Companyâ€™s 2023 Form 10-K.â€‹Item 1A â€“ Risk Factorsâ€‹In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the risk factors that could materially affect the Companyâ€™s business, financial condition or future results discussed in the Companyâ€™s 2023 Form 10-K in Part I, Item 1A â€œRisk Factorsâ€ and the Companyâ€™s Form 10-Q for the quarter ended March 31, 2024 in Part II, Item 1A â€œRisk Factorsâ€. The risks described in the 2023 Form 10-K and the Form 10-Q for the quarter ended March 31, 2024 are not the only risks that could affect the Company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially adversely affect our business, financial condition and/or operating results in the future. As a supplement to the risk factors identified in the 2023 Form 10-K and the Form 10-Q for the quarter ended March 31, 2024, below we have set forth an updated risk factor. Other than as provided below, there have been no material changes to the risk factors identified in the 2023 Form 10-K and the Form 10-Q for the quarter ended March 31, 2024.â€‹The reduction or elimination of government subsidies and economic incentives for alternative energy technologies, or the failure to renew such subsidies and incentives, could reduce demand for our products, lead to a reduction in our revenues, and adversely impact our operating results and liquidity. The Companyâ€™s ability to benefit from these subsidies and incentives, in particular the Section 45V Credit for Production of Clean Hydrogen and the Section 48E Clean Electricity Investment Credit, is not guaranteed and is dependent upon the federal governmentâ€™s forthcoming and ongoing implementation, guidance, regulations, and/or rulemakings that have been the subject of substantial public interest and debate.â€‹We believe that the near term growth of alternative energy technologies will be affected by the availability and size of government and economic incentives. Many of these government incentives expire, phase out over time, may be reduced or discontinued, no longer have available funding, may be implemented differently by changes in administrative agencies, or require renewal by the applicable authority. For example, in August 2022, President Biden signed the IRA into law. The IRA contains hundreds of billions in credits and incentives for the development of renewable energy, clean hydrogen, clean fuels, EVs and supporting infrastructure and carbon capture and sequestration, among other provisions. The IRA contains numerous credits and tax incentives that may be relevant to us, including: (i) a new Section 45V Credit for Production of Clean Hydrogen, which provides a production tax credit of up to $3 per kg of qualified clean hydrogen over a 10-year credit period for the production of qualified clean hydrogen at a qualified facility in the United States; (ii) an extension and amendment of the Section 48 Investment Tax Credit (â€œITCâ€) for Qualified Fuel Cell Properties, including fuel cell technology; (iii) a new Section 48 Investment Tax Credit for Energy Storage Technologies, which expands the applicability of the investment tax credit to include standalone energy storage projects, among other things; and (iv) a new Section 48E Clean Electricity Investment Tax Credit, which provides a tax credit for investment in facilities that generate clean electricity, among other provisions.â€‹There is uncertainty as to how the provisions under the IRA will be interpreted and implemented. The Companyâ€™s ability to ultimately benefit from IRA tax credits and incentives, including the aforementioned, is not guaranteed and is dependent upon the implementation, guidance, rulemakings, and/or regulations from the federal government. Several of these credits and tax incentives, in particular the new Section 45V Credit for Production of Clean Hydrogen, have received substantial public interest and have been subject to debate, and divergent views on potential implementation, guidance, rules, and regulatory principles by a diverse group of interested parties - some of whom are advocating for limitations to 61 Table of ContentsSection 45V that could be materially adverse to the Company and its near term hydrogen generation projects. Specifically, guidance, rules, or regulations limiting a hydrogen production facilityâ€™s use of renewable energy credits, environmental attributes, and grid electricity could limit the Companyâ€™s ability to benefit from the Section 45V Credit for Production of Clean Hydrogen. As the Company has endeavored numerous hydrogen generation projects prior to the promulgation of Section 45Vâ€™s guidance, there is no guarantee that the Companyâ€™s projects will comply with the final eligibility requirements of Section 45V. Furthermore, the U.S. Department of Treasury issued a notice of proposed rulemaking on the Section 45V Credit for Production of Clean Hydrogen in December 2023. The notice contained draft regulatory requirements that, if finalized, could have material adverse impacts to the Companyâ€™s hydrogen generation projects - both current and planned. In particular, the draft regulation contains numerous provisions unfavorable for the use of grid electricity and renewable energy credits, which are essential to the

Companyâ€™s ability to claim the Section 45V credit for hydrogen produced at our projects. Relatedly, draft regulations on the Section 48 Investment Tax Credit for Energy Storage Technology contain provisions preventing taxpayers from claiming the energy storage credit for hydrogen storage property not exclusively used for energy-related purposes; and further, draft regulations on the Section 48E Clean Electricity Investment Credit propose burdensome requirements for fuel cells to be eligible for this credit, specifically examination of the greenhouse gas emissions of hydrogen used by the fuel cell system. There is no guarantee that the U.S. Treasury Departmentâ€™s final regulations will be more advantageous for the Company; and in fact, the final regulatory requirements could become less favorable than the draft regulation in the notice of proposed rulemaking. The effect of the final regulations on our business is not yet known but if we are not able to comply with the final eligibility requirements and our competitors are able to do so, our business may be adversely affected.â€‹Furthermore, future political administration changes, legislative enactments, administrative actions, expiration or changes to clean energy tax credits, policies, or other incentives might be more favorable to other technologies or could limit, amend, repeal, or terminate policies or other incentives that the Company currently hopes to leverage, such as the U.S. Department of Energy Loan Programs Office Loan Guarantee. For example, the Section 48 ITC for qualified fuel cell properties is scheduled to expire for fuel cell properties beginning construction after December 31, 2024, and if not extended, there is no guarantee that Plugâ€™s fuel cell product will qualify for any federal tax credit thereafter. Any reduction, elimination, or discriminatory application of expiration of tax incentives or other government subsidies and economic incentives, or the failure to renew such tax credits, governmental subsidies, or economic incentives, may result in the diminished economic competitiveness of our products to our customers and could materially and adversely affect the growth of alternative energy technologies, including our products, as well as our future operating results and liquidity.â€‹ItemÂ 2 - Unregistered Sales of Equity Securities and Use of Proceedsâ€‹(a)Â Not applicable.â€‹(b)Â Not applicable.â€‹(c)Â None.â€‹ItemÂ 3 â€” Defaults Upon Senior Securitiesâ€‹None.â€‹Item 4 â€” Mine Safety Disclosuresâ€‹None.â€‹ItemÂ 5 â€” Other Informationâ€‹(a)On August 2, 2024, Kyungyeol Song notified the Board of Directors of his decision to resign from the Board of Plug Power Inc. effective immediately. Mr. Songâ€™s resignation was not due to any disagreement with the Company on any matter relating to the Companyâ€™s operations, policies or practices.â€‹62 Table of Contents(c) Director and Officer Trading Arrangementsâ€‹On May 17, 2024, Martin Hull, an executive officer of our Company, adopted a stock trading plan established pursuant to Rule 10b5-1 of the Exchange Act, which was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). The trading plan provides for the sale of up to 501,710 shares of the Companyâ€™s common stock in the aggregate until the earlier of November 28, 2025 or the date all shares are sold thereunder.â€‹On June 3, 2024, Maureen Helmer, a director of our Company, adopted a stock trading plan established pursuant to Rule 10b5-1 of the Exchange Act, which was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). The trading plan provides for the sale of up to 27,056 shares of the Companyâ€™s common stock in the aggregate until the earlier of December 3, 2025 or the date all shares are sold thereunder.â€‹On June 14, 2024, Keith Schmid, an executive officer of our Company, adopted a stock trading plan established pursuant to Rule 10b5-1 of the Exchange Act, which was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). The trading plan provides for the sale of up to 648,334 shares of the Companyâ€™s common stock in the aggregate until the earlier of September 12, 2025 or the date all shares are sold thereunder.â€‹The trading plans were entered into during an open insider trading window and are intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) under the Exchange Act. There were no other Rule 10b5-1 trading arrangements or non-Rule 10b5-1 trading arrangements adopted, modified or terminated by the Companyâ€™s directors or executive officers during the quarter ended June 30, 2024.â€‹63 Table of ContentsItemÂ 6 â€” Exhibitsâ€‹3.1Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.1 to Plug Power Inc.â€™s Annual Report onÂ Form 10-KÂ filed on March 16, 2009 and incorporated by reference herein)3.2Certificate of Amendment to Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.3 to Plug Power Inc.â€™s Annual Report onÂ Form 10-KÂ filed on March 16, 2009 and incorporated by reference herein)3.3Second Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.1 to Plug Power Inc.â€™s Current Report onÂ Form 8-KÂ filed on May 19, 2011 and incorporated by reference herein)3.4Third Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.1 to Plug Power Inc.â€™s Current Report onÂ Form 8-KÂ filed on July 25, 2014 and incorporated by reference herein)3.5Certificate of Correction to Third Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.9 to Plug Power Inc.â€™s Annual Report onÂ Form 10-KÂ filed on March 10, 2017 and incorporated by reference herein)3.6Fourth Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.1 to Plug Power Inc.â€™s Current Report onÂ Form 8-KÂ filed on June 30, 2017 and incorporated by reference herein)3.7Fifth Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.7 to Plug Power Inc.â€™sÂ Quarterly Report on Form 10-QÂ filed on August 5, 2021 and incorporated by reference herein)3.8Certificate of Designations, Preferences and Rights of a Series of Preferred Stock of Plug Power Inc. classifying and designating the Series A Junior Participating Cumulative Preferred Stock. (filed as Exhibit 3.1 to Plug Power Inc.â€™s Registration Statement onÂ Form 8-AÂ filed on June 24, 2009 and incorporated by reference herein)3.9Seventh Amended and Restated By-laws of Plug Power Inc. (filed as Exhibit 3.1 to Plug Power Inc.â€™s Current Report on Form 8-K filed on April 26, 2024 and incorporated by reference herein)10.1*Relocation and Retention Agreement, dated May 10, 2024, by and between Plug Power Inc. and Sanjay Shrestha10.2Offer Letter, dated July 27, 2024 (filed as Exhibit 10.1 to Plug Power Inc.â€™s Current Report on Form 8-K filed on August 2, 2024 and incorporated by reference herein)10.3Executive Employment Agreement, dated July 29, 2024, by and between Plug Power Inc. and Dean C. Fullerton (filed as Exhibit 10.2 to Plug Power Inc.â€™s Current Report on Form 8-K filed on August 2, 2024 and incorporated by reference herein)10.4*Rules of the Plug Power Inc. 2021 Stock Option and Incentive Plan for Awards Granted to Participants in France10.5*Form of Restricted Stock Unit Award Agreement for Non-U.S. Grantees10.6*Sublease Agreement, dated December 15, 2021, by and between Vista Real Estate Development LLC and Plug Power Inc.10.7*First Amendment to Sublease Agreement, dated May 26, 2022, by and between Campus Associates XII LLC and Plug Power Inc.10.8*Second Amendment to Sublease Agreement, dated February 14, 2024, by and between Campus Associates XII LLC and Plug Power Inc.10.9*Assignment and Modification of Ground Lease Premises 2, dated November 1, 2023, Campus Associates XI LLC, Vista Development Group, LLC and Plug Power Inc.31.1*Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 200231.2*Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 200232.1**Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 200232.2**Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002101.INS*Inline XBRL Instance Document101.SCH*Inline XBRL Taxonomy Extension Schema Document101.CAL*Inline XBRL Taxonomy Extension Calculation Linkbase Document64 Table of Contents101.DEF*Inline XBRL Taxonomy Extension Definition Linkbase Document101.LAB*Inline XBRL Taxonomy Extension Labels Linkbase Document101.PRE*Inline XBRL Taxonomy Extension Presentation Linkbase Document104*Cover Page Interactive Data File (embedded within the Inline XBRL document)*Submitted electronically herewith.** Pursuant to Item 601(b)(32)(ii) of Regulation S-K, this certification is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.â€‹65 Table of ContentsSignaturesâ€‹Pursuant to requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.â€‹â€‹â€‹â€‹â€‹PLUG POWER INC.â€‹â€‹â€‹Date: August 8, 2024By:/s/ Andrew Marshâ€‹â€‹Andrew Marshâ€‹â€‹President, Chief ExecutiveOfficer and Director (PrincipalExecutive Officer)â€‹â€‹â€‹â€‹Date:Â August 8, 2024By:/s/ Paul B. Middletonâ€‹â€‹Paul B. Middletonâ€‹â€‹Chief Financial Officer (PrincipalFinancial Officer)â€‹â€‹â€‹â€‹66 EX-10.1 2 plug-20240630xex10d1.htm EX-10.1 Exhibit 10.1â€‹RELOCATION AND RETENTION AGREEMENTâ€‹This Agreement is made as of May 10, 2024, by and between Plug Power Inc. (â€œEmployerâ€), and Sanjay Shrestha, an individual employed by Employer (â€œEmployeeâ€).â€‹R E C I T A L Sâ€‹WHEREAS, Employer desires to encourage the Employee to relocate his primary residence closer to Employerâ€™s office location in Latham, New York to promote more efficient communication and peer engagement;â€‹WHEREAS, Employer desires to encourage the continued dedication of Employee to Employer and to promote the stability of Employerâ€™s management by providing certain incentives to Employee for remaining in the employ of Employer; andâ€‹WHEREAS, Employer believes it is imperative that it be able to rely upon Employee to continue in their position, and that Employer be able to receive and rely upon Employeeâ€™s advice, if it requests it, as to the best interests of Employer, and its customers, without concern that Employee might be distracted by the personal uncertainties and risks.â€‹NOW THEREFORE, to assure Employer will have the continued dedication of Employee and the availability of their advice, to induce Employee to relocate to Employerâ€™s headquarters, and to induce Employee to remain in the employ of Employer, and for other good and valuable consideration, Employee and Employer agree as follows:â€‹1.Relocation Payment. Â In consideration of Employee relocating his primary residence within thirty (30) miles of Latham, New York no later than December 31, 2024 (â€œRelocation Dateâ€), within ten (10) days of execution of this Agreement, Employer will pay Employee a lump sum contingent relocation payment of Five Hundred Seventy-Five Thousand Dollars ($575,000.00) (â€œRelocation Paymentâ€), less applicable withholdings and deductions. Â In the event Employee fails to relocate in accordance with this paragraph, Employee shall repay the gross Relocation Payment to Employer within thirty (30) days of the Relocation Date.â€‹2.Retention Payment. Â To insure Employee remains in the employ of Employer through May 10, 2028 (â€œRetention Dateâ€), within ten (10) days of execution of this Agreement, Employer will pay Employee a lump sum contingent retention payment of Five Hundred Seventy-Five Thousand Dollars ($575,000.00) (â€œRetention Paymentâ€), less applicable withholdings and deductions.â€‹3.Claw Back. Â In the event Employeeâ€™s employment with Employer terminates for Cause (as defined in Section 6(c) of the Employeeâ€™s Executive Employment Agreement dated April 16, 2019) or if the Employee terminates without Good Reason (as defined in Section 6(e) of the Employeeâ€™s Executive Employmentâ€‹Agreement) before the Retention Date, Employee shall repay to Employer the applicable pre-tax portion of both the Retention Payment and Relocation Payment:â€‹Prior to May 10, 2025100%Prior to May 10, 202675%Prior to May 10, 202750%Prior to May 10, 202825%â€‹Such repayment shall be made by Employee to Employer in a single lump sum within thirty (30) days of Employeeâ€™s last day of employment with Employer.â€‹4.Consent to Offset.Â To the extent a clawback is triggered per Section 3 above, Employee agrees that any repayment due Employer under this Agreement may be deducted to the extent permitted by law from any amounts due Employee from Employer at the time of employment termination, including wages, accrued vacation pay, incentive compensation payments, bonuses and commissions, and hereby expressly authorizes such deduction(s).â€‹5.Enforcement. Â Should Employee fail to timely repay to Employer any amounts due under this Agreement, Employee agrees to pay any and all reasonable costs incurred by Employer in collecting the amount due, including reasonable attorneysâ€™ fees.â€‹6.Other Compensation and Benefits. Â Nothing in this Agreement is intended to alter or impact Employeeâ€™s entitlement to his base salary, incentive compensation or other benefits.â€‹7.Tax Liability. Employee acknowledges that Employer has not given any advice as to the characterization of payments received under this Agreement for any personal tax responsibility such payments may generate. Should any taxing authority challenge Employeeâ€™s treatment or characterization of the payments, Employee acknowledges Employer has no obligation whatsoever to indemnify, defend, aid, pay, or reimburse Employee for any underpayment, overpayment, penalty, or interest charge the taxing authority may assess against or claim is due from Employee.â€‹8.Choice of Law/Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to New Yorkâ€™s rules regarding choice of law. Any proceeding between the parties relating to this Agreement shall be held in a court of competent jurisdiction in the State of New York. All parties agree to be subject to the personal jurisdiction of the courts of New York.â€‹â€‹9.Severability. Â If any provision of this Agreement shall be for any reason deemed invalid or unenforceable, it is understood and agreed that the remaining provisions of the Agreement shall be valid and enforceable.â€‹10.Entire Agreement. Â Employee agrees that he has read and understands this Agreement and that this Agreement constitutes the entire understanding between Employee and Employer, with reference to the subject matter hereof; provided, however, that this Agreement shall not supersede Executive Employment Agreement dated April 16, 2019, which shall remain in full force and effect.â€‹11.Modifications. This agreement shall not be altered or amended except by a written instrument signed by both parties.â€‹IN WITNESS WHEREOF, the parties have executed this Agreement as of the date specified in the first paragraph of this Agreement.â€‹â€‹PLUG POWER INC.â€‹â€‹â€‹â€‹By:/s/ Andrew Marshâ€‹â€‹Andrew Marshâ€‹â€‹Chief Executive Officer & Presidentâ€‹â€‹â€‹â€‹/s/ Sanjay Shresthaâ€‹Employeeâ€‹ EX-10.4 3 plug-20240630xex10d4.htm EX-10.4 â€‹Exhibit 10.4RULES OF THEPLUG POWER INC. 2021 STOCK OPTION AND INCENTIVE PLANFOR AWARDS GRANTED TO PARTICIPANTS IN FRANCEI.GENERAL.1.Introduction.The Board of Directors (the â€œBoardâ€) of Plug Power Inc. (the â€œCompanyâ€) has established the Plug Power Inc. 2021 Stock Option and Incentive Plan (the â€œU.S. Planâ€) for the benefit of certain eligible persons, including employees of the Company and its Subsidiaries and Affiliates, including its Subsidiaries and Affiliates in France (each, a â€œFrench Entityâ€), of which the Company holds directly or indirectly at least ten percent (10%) of the share capital.Sections 2(b)(vii) and 2(f) of the U.S. Plan specifically authorize the Board or the compensation committee of the Board or a similar committee performing the functions of the compensation committee (the â€œAdministratorâ€) to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings and to establish subplans and modify exercise procedures and other terms and procedures, to the extent the Administrator determines such actions to be necessary or advisable. The Administrator has determined that it is appropriate and desirable to establish a sub-plan for the purposes of permitting stock options and restricted stock units granted to qualifying participants of a French Entity that qualify for special tax and social security treatment in France. Â The Administrator, therefore, intends to establish a sub-plan to the U.S. Plan for the purpose of granting â€œOptionsâ€ (as defined in Section I.2(d) below) that qualify for the special tax and social security treatment in France applicable to stock options granted under Sections L.Â 225-177 to L. 225-186 and Sections L. 22-10-56 to L. 22-10-58 of the French Commercial Code, as amended from time to time (â€œFrench-Qualified Optionsâ€), and â€œRestricted Stock Unitsâ€ (as defined in Section I.2(e) below) that qualify for the special tax and social security treatment in France applicable to shares granted for no consideration under Sections L. 225-197-1 to L. 225-197-5 and Sections L. 22-10-59 and L. 22-10-60 of the French Commercial Code, as amended from time to time (such Restricted Stock Units referred to herein as â€œFrench-Qualified RSUsâ€), to qualifying participants of a French Entity who are resident in France for French tax purposes and/or subject to the French social security regime (the â€œFrench Participantsâ€).The terms of the U.S. Plan applicable to stock options and restricted stock units, as set out in AppendixÂ 1 hereto, subject to the limitations set forth herein, shall constitute the Rules of the Plug Power Inc. 2021 Stock Option and Incentive Plan for Awards Granted to Participants in France (the â€œFrench Sub-Planâ€).Under the French Sub-Plan, qualifying participants selected at the Administratorâ€™s discretion will be granted Options and Restricted Stock Units only as such terms are defined in Section I.2 hereunder. Â The provisions of the U.S. Plan permitting the grant of Stock Appreciation Rights, Restricted Stock Awards, Unrestricted Stock Awards, Cash-Based Awards, and Dividend Equivalent Rights, or any combination of the foregoing and all other provisions related exclusively to these types of awards are not applicable to grants made under this French â€‹â€‹â€‹â€‹Sub-Plan. Â The Options and Restricted Stock Units granted under this French Sub-Plan will be granted solely with respect to common stock of the Company.The provisions under Parts I and IV of this French Sub-Plan shall apply both to French-Qualified Options and to French-Qualified RSUs. Â The provisions under Part II of this French Sub-Plan apply only to the grant of French-Qualified Options, and the provisions under Part III of this French Sub-Plan apply only to French-Qualified RSUs.2.Definitions. Â Capitalized terms not otherwise defined herein shall have the same meanings as set forth in the U.S. Plan. Â The terms set out below will have the following meanings:(a)For French-Qualified Options, the term â€œClosed Periodâ€ shall mean, with respect to shares of Stock that are listed on a regulated market, the specific period set forth in set forth in Section L. 22-10-56 of the French Commercial Code, as amended from time to time during which French-Qualified Options may not be granted, including: (i) ten (10) quotation days preceding and including the date on which the annual and intermediate consolidated financial statements are made public, or (ii) the period as from the date the corporate management of the Company possesses confidential information within the meaning of Article 7 of the Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (Market Abuse Regulation) and cancelling the Directive 2003/6/UE and Directives 2003/124/CE Parliament and 2004/72/CE of the Commission), until the date on which this information is disclosed to the public, or (iii) twenty (20) quotation days following an ex-dividend date that offers the right to a dividend or capital increase.For French-Qualified RSUs, the term â€œClosed Periodâ€ shall mean, with respect to shares of Stock that are listed on a regulated market, the specific period set forth in Section L. 22-10-59 of the French Commercial Code, as amended from time to time, during which the sale or transfer of shares of Stock acquired at vesting of French-Qualified RSUs cannot be sold or transferred, including: (i) the thirty (30) calendar day period before the announcement of an intermediate financial report or end-of-year report that the issuer is required to make public; and (ii) with respect to such persons, any period during which the chief executive officer (directeur gÃ©nÃ©ral), any deputy chief executive officer (directeur gÃ©nÃ©ral dÃ©lÃ©guÃ©), or any member of the board of directors (conseil dâ€™administration), the supervisory board (conseil de surveillance) or the executive board (directoire) of the Company, or any employee possesses knowledge of inside information (within the meaning of Article 7 of the Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (Market Abuse Regulation) and cancelling the Directive 2003/6/UE and Directives 2003/124/CE Parliament and 2004/72/CE of the Commission) which has not been disclosed to the public.If French law or regulations are amended after adoption of this French Sub-Plan to modify the definition and/or applicability of the Closed Period to French-qualified Options and/or French-qualified RSUs, such amendment shall become applicable to any French-Qualified Options and French-Qualified RSUs granted under this French Sub-Plan, to the extent permitted or required by French law.â€‹- 2 -â€‹(b)The term â€œDisabilityâ€ shall mean disability as determined in categories 2 and 3 under Section L. 341-4 of the French Social Security Code, as amended from time to time, and subject to the fulfillment of related conditions.(c)The term â€œGrant Dateâ€ shall mean the date on which the Administrator both (i)Â designates the French Participants, and (ii) specifies the material terms and conditions of the French-Qualified Options or French-Qualified RSUs, including the number of shares of Stock subject to the French-Qualified Options or French-Qualified RSUs, the conditions for vesting of the French-Qualified Options or French-Qualified RSUs, the conditions for exercising the French-Qualified Options and any restrictions on the sale of the shares of Stock subject to the French-Qualified Options or French-Qualified RSUs.(d)The term â€œOptionâ€ shall mean a Stock Option (as defined in the U.S. Plan) that includes both:(i)purchase share options (rights to acquire shares of Stock repurchased by the Company prior to the date on which the Options become exercisable); and(ii)subscription share options (rights to subscribe for newly-issued shares of Stock).(e)The term â€œRestricted Stock Unitâ€ shall mean a Restricted Stock Unit granted under the U.S. Plan, pursuant to which the Company will issue to the French Participant, after the vesting conditions for such Restricted Stock Units have been met, at no consideration, one share of Stock for each Restricted Stock Unit granted to the French Participant. Â No French Participant will have any of the rights of a stockholder with respect to any shares of Stock until the Restricted Stock Units are settled and the shares of Stock are issued to the French Participant, in accordance with the provisions of the Restricted Stock Unit Award Agreement for Non-U.S. Grantees. Dividend and voting rights will not apply until the issuance of shares of Stock after vesting of the Restricted Stock Units. Â French-Qualified RSU may not be settled in cash.(f)The term â€œVesting Dateâ€ shall mean the date on which the shares of Stock subject to the French-Qualified RSUs are issued to the French Participant or the date on which the French-Qualified Options become exercisable.3.Eligibility to Participate.(a)Subject to Section I.3(c) below, any individual who, on the Grant Date of the French-Qualified Option or the French-Qualified RSU, as applicable, and to the extent required under French law, is a current salaried employee employed under the terms and conditions of an employment contract (â€œcontrat de travailâ€) by a French Entity or who is a corporate officer of a French Entity (subject to Section I.3(b) below) shall be eligible to receive, at the discretion of the Administrator, French-Qualified Options and/or French-Qualified RSUs under this French Sub-Plan, provided the French Participant also satisfies the eligibility conditions of Section 4 of the U.S. Plan.(b)Neither French-Qualified Options nor French-Qualified RSUs may be issued to an officer of a French Entity, other than the managing corporate officers (â€œmandataires sociaux,â€ i.e., PrÃ©sident du Conseil dâ€™Administration, Directeur GÃ©nÃ©ral, Directeur GÃ©nÃ©ral DÃ©lÃ©guÃ©,â€‹- 3 -â€‹Membre du Directoire, GÃ©rant de SociÃ©tÃ©s par actions), unless the officer is effectively employed under the terms and conditions of an employment contract (â€œcontrat de travailâ€) with a French Entity, as defined by French law. Â The Administrator, in its discretion, may impose additional restrictions upon the exercise of the French-Qualified Options and upon the holding and sale of shares of Stock issued upon the vesting of the French-Qualified RSUs or the exercise of the French-Qualified Options granted to a French Participant who qualifies as a managing corporate officer of the Company as defined under French law (i.e., â€œmandataires sociauxâ€ as set forth above).(c)French-Qualified Options and French-Qualified RSUs may not be issued under the French Sub-Plan to French Participants who own more than ten percent (10%) of the Companyâ€™s share capital (as calculated pursuant to Section L. 225-197-1 of the French Commercial Code, as amended from time to time, for French-Qualified RSUs) or to individuals other than employees and corporate officers of a French Entity. Â Grants of French-Qualified Options and French-Qualified RSUs under this French Sub-Plan may not result in any French Participantâ€™s owning more than ten percent (10%) of the Companyâ€™s share capital (as calculated pursuant to Section L. 225-197-1 of the French Commercial Code, as amended from time to time, for French-Qualified RSUs).(d)The aggregate number of French-Qualified RSUs shall not exceed fifteen percent (15%) of the Companyâ€™s share capital, or such other percentage as may be required by French law or regulations as amended after adoption of this French Sub-Plan. The aggregate number of French-Qualified Options granted shall not exceed one-third of the Companyâ€™s share capital, or such other percentage as may be required by French law or regulations as amended after adoption of this French Sub-Plan.4.Delivery of Shares of Stock Only. Â Only shares of Stock, and not the cash equivalent in lieu of such shares of Stock, may be delivered to any French Participant pursuant to the French-Qualified Options and French-Qualified RSUs granted under this French Sub-Plan.5.Non-Transferability. Â Except in the case of death, neither French-Qualified Options nor French-Qualified RSUs may be sold, assigned, transferred, pledged or otherwise encumbered to a party other than the French Participant to whom the Award is granted. The French-Qualified Options are exercisable only by the French Participant during the French Participantâ€™s lifetime, subject to Sections II.3(c) and II.4 below. The shares of Stock underlying the French-Qualified RSUs shall be issued only to the French Participant during the French Participantâ€™s lifetime, subject to Sections III.1(a) and III.3 below.6.Disqualification of French-Qualified Options and French-Qualified RSUs. Â If, following the grant, changes are made to the terms and conditions of the French-Qualified Options and/or French-Qualified RSUs due to any applicable legal requirements or a decision of the Companyâ€™s shareholders, the Board or the Committee, the Options, and/or Restricted Stock Units may no longer qualify as French-Qualified Options and French-Qualified RSUs. Â If the Options, and/or Restricted Stock Units no longer qualify as French-Qualified Options and/or French-Qualified RSUs, the Administrator may determine, in its sole discretion, to lift, shorten or terminate certain restrictions applicable to the vesting or exercisability of the Options, the vesting of the Restricted Stock Units or to the sale of the shares of Stock underlying the Options, â€‹- 4 -â€‹and/or Restricted Stock Units, which restrictions have been imposed under this French Sub-Plan or in the applicable award agreement delivered to the French Participant.7.Employment Rights. Â The adoption of this French Sub-Plan (a) shall not confer any employment rights upon the French Participants or any employees of a French Entity, and (b) shall not be construed as a part of any employment contracts that a French Entity has with its employees.8.Amendments. Â Subject to the terms of the U.S. Plan, the Administrator reserves the right to amend or terminate this French Sub-Plan at any time in accordance with applicable French law.II.FRENCH-QUALIFIED OPTIONS.1.Closed Period. Â French-Qualified Options may not be granted during a Closed Period to the extent that such Closed Periods are applicable to French-Qualified Options granted by the Company.2.Conditions of French-Qualified Options.(a)The exercise price and number of underlying shares of Stock shall not be modified after the Grant Date, except as provided in Section II.5 of this French Sub-Plan, or as otherwise authorized by French law. Â Any other modification permitted under the U.S. Plan may result in the Option no longer qualifying as a French-Qualified Option.(b)The French-Qualified Options will vest and become exercisable pursuant to the terms and conditions set forth in the U.S. Plan, this French Sub-Plan, and the applicable award agreement delivered to each French Participant.(c)The exercise price per share of Stock payable pursuant to French-Qualified Options granted under this French Sub-Plan shall be fixed by the Administrator on the Grant Date and shall be determined in accordance with the method for determining the exercise price set forth by the Administrator and Sections L. 225-177 to L. 225-186 of the French Commercial Code, as amended from time to time.3.Exercise of French-Qualified Options.(a)Exercisability. Â When a French-Qualified Option is granted, the Administrator shall fix the period within which the Option vests and may be exercised and shall determine any conditions that must be satisfied before the Option may be exercised. Â Specifically, the Administrator, in order to obtain the special tax and social security treatment pursuant to the relevant Section of the French Tax Code, as amended from time to time, or the relevant Section of the French Social Security Code, as amended from time to time, may provide for a holding period measured from the Grant Date for the vesting or exercise of a French-Qualified Option or for the sale of shares of Stock acquired pursuant to such exercise. Â Such holding period for the vesting or exercise of a French-Qualified Option or the sale of shares of Stock, if any required, shall be set forth in the applicable award agreement. Â The holding period restricting the sale of shares of Stock shall not exceed three (3) years from the exercise date of a French-Qualified Option.â€‹- 5 -â€‹(b)Payment of Exercise Price and Withholding. Â Upon exercise of a French-Qualified Option, the full exercise price and any required withholding tax and/or social security contributions shall be paid by the French Participant as set forth in the applicable award agreement. Â Under a â€œsame day saleâ€ program, the French Participant may give irrevocable instructions to a broker to sell the shares of Stock otherwise deliverable upon the exercise of the Option and to deliver promptly to the Company an amount equal to the aggregate exercise price. Â No delivery of other shares of Stock already owned by the French Participant may be used to pay the exercise price.(c)Death. Â In the event of the death of a French Participant, the French Participantâ€™s French-Qualified Options thereafter shall be immediately vested and exercisable in full under the conditions set forth by Section II.4 of this French Sub-Plan.(d)Account for Shares of Stock. Â The shares of Stock acquired upon exercise of a French-Qualified Option will be recorded in an account in the name of the French Participant with the Company or a broker or in such manner as the Company otherwise may determine in order to ensure compliance with applicable laws, including any requisite holding periods.4.Death. Â Upon the death of a French Participant during active employment, all French-Qualified Options shall become immediately vested and exercisable and may be exercised in full by the French Participantâ€™s heirs or the legal representative of the French Participantâ€™s estate for the six (6)-month period following the date of the French Participantâ€™s death, unless vesting of such French-Qualified Options is subject to performance-vesting requirement or any objective vesting requirement that does not depend on the French Participant. In such case, the applicable award agreement delivered to the French Participant may provide that the underlying shares will not become transferable to the French Participantâ€™s heirs unless and until such objective conditions are satisfied. Â Upon the death of a French Participant after termination of active employment, the treatment of French-Qualified Options will be as set forth in the applicable award agreement and, to the extent vested at the time of the French Participantâ€™s death, the French-Qualified Options may be exercised in full by the French Participantâ€™s heirs or the legal representative of the French Participantâ€™s estate for the six (6)-month period following the date of the French Participantâ€™s death. Â In any case, any French-Qualified Option that remains unexercised shall expire six (6) months after the French Participantâ€™s date of death. Â The six (6)-month exercise period shall apply without regard to the term of the French-Qualified Options as described in Section II.6 of this French Sub-Plan.5.Adjustments and Change of Control. Â Adjustments of the French-Qualified Options granted hereunder may be made to preclude the dilution or enlargement of benefits under the French-Qualified Options in the event of a transaction by the Company as set forth in Section L. 225-181 of the French Commercial Code, as amended from time to time, and in case of a repurchase of shares of Stock by the Company at a price higher than the share quotation price in the open market, and according to the provisions of Section L. 228-99 of the French Commercial Code, as amended from time to time, as well as according to specific decrees. Â Should adjustments be made in the case of a transaction for which adjustments are not recognized under such French laws, the Options may no longer qualify as French-Qualified Options.â€‹- 6 -â€‹In the event of capitalization adjustments or adjustments upon a Sale Event as set forth in Sections 3(c) and (d) of the U.S. Plan, the Options may no longer qualify as French-Qualified Options unless the adjustments are recognized under applicable French legal and tax rules. Â The Administrator, at its discretion, may make adjustments to the Options, notwithstanding that the adjustment is not recognized under French law; however, in such case, the Options may no longer qualify as French-Qualified Options. Finally, if the French-Qualified Options are assumed or substituted or if vesting or exercisability is accelerated due to a Sale Event, the Options may no longer be considered as French-Qualified Options.6.Term of French-Qualified Options. Â French-Qualified Options granted pursuant to this French Sub-Plan will expire no later than nine (9) years and six (6) months after the Grant Date, unless otherwise specified in the applicable award agreement. Â The Option term will be extended only upon the death of a French Participant, but in no event will any French-Qualified Option be exercisable beyond six (6) months following the French Participantâ€™s date of death.7.Interpretation. The Options granted under this French Sub-Plan are intended to qualify for the special tax and social security treatment applicable to stock options granted under Sections L.Â 225-177 to L. 225-186 and Sections L. 22-10-56 to L. 22-10-58 of the French Commercial Code, as amended from time to time, and in accordance with the relevant provisions set forth by French tax law and the French tax administration, but the Company does not undertake to maintain this status. Â The terms of this French Sub-Plan shall be interpreted accordingly and in accordance with the relevant provisions set forth by French tax and social security laws and relevant guidelines published by French tax and social security administrations and subject to the fulfillment of legal, tax, and reporting obligations, to the extent applicable. Â In the event of any conflict between the provisions of this French Sub-Plan and the U.S. Plan, the provisions of this French Sub-Plan shall control for any grants of Options made hereunder to French Participants.III.FRENCH-QUALIFIED RSUs.1.Conditions of the French-Qualified RSUs.(a)Vesting of French-Qualified RSUs. Â French-Qualified RSUs shall not vest and the shares of Stock underlying the French-Qualified RSUs shall not be delivered to the French Participants prior to the expiration of the specific period calculated from the Grant Date as may be required to comply with the minimum mandatory vesting period applicable to French-Qualified RSUs under Section L. 225-197-1 of the French Commercial Code, as amended from time to time, or under the relevant sections of the French Tax Code or the French Social Security Code, as amended from time to time, to benefit from the special tax and social security treatment in France. Â However, notwithstanding the vesting requirements described above, upon the death of a French Participant, all of the French Participantâ€™s outstanding French-Qualified RSUs shall become transferable under the conditions set forth in Section III.3 of this French Sub-Plan. Â In the event of Disability (as defined in this French Sub-Plan), the French Participantâ€™s outstanding French-Qualified RSUs may become vested without regard to the minimum mandatory vesting period described above, if so determined by the Company and set forth in the applicable award agreement.â€‹- 7 -â€‹(b)Holding of Shares of Stock. Â The sale or transfer of shares of Stock issued pursuant to the French-Qualified RSUs may not occur prior to the relevant anniversary of the Vesting Date specified by the Administrator as may be required to comply with the minimum mandatory holding period applicable to French-Qualified RSUs under Section L. 225-197-1 of the French Commercial Code, as amended from time to time, or the relevant sections of the French Tax Code or the French Social Security Code, as amended from time to time, to benefit from the special tax and social security regime, even if the French Participant is no longer an employee or corporate officer of a French Entity. Â In addition, the shares of Stock issued pursuant to the French-Qualified RSUs may not be sold or transferred during a Closed Period, so long as those Closed Periods are applicable to shares of Stock underlying French-Qualified RSUs.(c)French Participantâ€™s Account. Â Shares of Stock issued pursuant to the French-Qualified RSUs shall be recorded and held in an account in the name of the French Participant with the Company or a broker or in such other manner as the Company may determine in order to ensure compliance with applicable laws, including any required holding periods.2.Adjustments and Change of Control. Â In the event of capitalization adjustments or adjustments upon a Sale Event as set forth in Sections 3 (c) and (d) of the U.S. Plan, the Restricted Stock Units may no longer qualify as French-Qualified RSUs unless the adjustments are recognized under applicable French legal and tax rules. Â The Administrator, at its discretion, may make adjustments to the Restricted Stock Units, notwithstanding that the adjustments are not recognized under French law, in which case the Restricted Stock Units may no longer qualify as French-Qualified RSUs. Â Finally, if the French-Qualified RSUs are assumed or substituted or if vesting or the holding period is accelerated due to a Sale Event, the Restricted Stock Units may no longer be considered as French-Qualified RSUs.3.Death and Disability. Â Upon the death of a French Participant, any French-Qualified RSUs held by the French Participant at the time of death shall become immediately vested and the underlying Shares transferable to the French Participantâ€™s heirs, unless vesting of such French-Qualified RSUs is also subject to performance-vesting conditions in which case the Restricted Stock Unit Agreement delivered to the French Participant may provide that the underlying Shares will not become vested and transferable to the French Participantâ€™s heirs unless and until the performance vesting conditions are satisfied. Â The Company shall issue the shares of Stock to the French Participantâ€™s heirs, at their request, provided the heirs contact the Company and request such transfer of the shares within six (6) months following the death of the French Participant. Â If the French Participantâ€™s heirs do not request the issuance of the shares of Stock underlying the French-Qualified RSUs within six (6) months after the French Participantâ€™s death, the French-Qualified RSUs will be forfeited. Â The French participantâ€™s heirs shall not be subject to the restrictions on the transfer of shares of Stock set forth in Section III.1(b) of this French Sub-Plan. Â If a French Participant ceases to be employed by the Company or a French Entity by reason of the French Participantâ€™s Disability (as defined in this French Sub-Plan), the French Participant shall not be subject to the restrictions on the transfer of shares of Stock set forth in Section III.1(b) of this French Sub-Plan.4.Interpretation. Â The Restricted Stock Units granted under this French Sub-Plan are intended to qualify for the special tax and social security treatment applicable to shares granted for no consideration under Sections L. 225-197-1 to L. 225-197-5 and Sections L. 22-10-59 and â€‹- 8 -â€‹L. 22-10-60 of the French Commercial Code, as amended from time to time, and in accordance with the relevant provisions set forth by French tax and social security laws, but the Company does not undertake to maintain this status. Â The terms of this French Sub-Plan shall be interpreted accordingly and in accordance with the relevant provisions set forth by French tax and social security laws and relevant guidelines published by French tax and social security administrations and subject to the fulfilment of certain legal, tax, and reporting obligations, to the extent applicable. Â In the event of any conflict between the provisions of this French Sub-Plan and the U.S. Plan, the provisions of this French Sub-Plan shall control for any grants of Restricted Stock Units made hereunder to French Participants.IV.ADOPTIONThe French Sub-Plan was adopted by the Board on August 7, 2024 and became effective as of that date.- 9 - EX-10.5 4 plug-20240630xex10d5.htm EX-10.5 Exhibit 10.5RESTRICTED STOCK UNIT AWARD AGREEMENTFOR NON-U.S. GRANTEESUNDER THE PLUG POWER INC.2021 STOCK OPTION AND INCENTIVE PLANName of Grantee:â€‹â€‹No. of Restricted Stock Units:â€‹â€‹Grant Date:â€‹â€‹â€‹Pursuant to the Plug Power Inc. 2021

Stock Option and Incentive Plan, as amended through the date hereof (the â€œPlanâ€), and this Restricted Stock Unit Award Agreement for Non-U.S. Grantees, including any additional terms and conditions for the Granteeâ€™s country in the addendum attached hereto (the â€œAddendumâ€ and collectively with the Restricted Stock Unit Award Agreement for Non-U.S. Grantees, the â€œAgreementâ€), Plug Power Inc. (the â€œCompanyâ€) hereby grants an award of the number of Restricted Stock Units listed above (an â€œAwardâ€) to the Grantee named above. Â Each Restricted Stock Unit shall relate to one share of Common Stock, par value $0.01 per share (the â€œStockâ€), of the Company.1.Restrictions on Transfer of Award. Â This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) the shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.2.Vesting of Restricted Stock Units. Â The restrictions and conditions of ParagraphÂ 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains in a Service Relationship (as defined in the Plan) on such Vesting Dates. Â If a series of Vesting Dates is specified, then the restrictions and conditions in ParagraphÂ 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.Incremental Number ofRestricted Stock Units VestedVesting Date____________ (__%)__________________________ (__%)__________________________ (__%)__________________________ (__%)______________â€‹In addition, if the Granteeâ€™s Service Relationship is terminated by the Company or an Affiliate, as applicable, without Cause (as defined below) upon or within 12 months following a Sale Event (as defined in the Plan), all outstanding Restricted Stock Units shall become fully vested as of the date of such termination. Â For purposes hereof, â€œCauseâ€ shall have the meaning set forthâ€‹â€‹in the employment or other service agreement between the Company or an Affiliate, as applicable, and the Grantee. Â In the event that the Grantee is not party to an employment or other service agreement or the applicable agreement does not contain a definition of â€œCause,â€ it shall mean a determination by the Administrator that the Grantee shall be dismissed as a result of (i) any material breach by the Grantee of any agreement between the Grantee and the Company or any Affiliate; (ii) the conviction of, indictment for or plea of nolo contendere by the Grantee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Grantee of the Granteeâ€™s duties to the Company or any Affiliate. Â The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.3.Termination of Service Relationship. Â Except as set forth in Paragraph 2 above, if the Granteeâ€™s Service Relationship terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units. For the avoidance of doubt, service during only a portion of the vesting period, but where the Granteeâ€™s Service Relationship has terminated prior to a Vesting Date, will not entitle the Grantee to vest in a pro-rata portion of the Restricted Stock Units or any compensation for lost vesting.For purposes of this Award, the Granteeâ€™s Service Relationship will be considered terminated as of the date the Grantee is no longer actively providing services to the Company or any Affiliate (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment or other laws in the jurisdiction where the Grantee is employed or otherwise providing services or the terms of the Granteeâ€™s employment or other service agreement, if any). Â The termination date for purposes of this Award will not be extended by any notice period (e.g., the Granteeâ€™s period of service would not include any contractual notice period or any period of â€œgarden leaveâ€ or similar period mandated under employment laws in the jurisdiction where the Grantee is employed or otherwise providing services or the terms of the Granteeâ€™s employment or other service agreement, if any). The Administrator shall have the exclusive discretion to determine when the Grantee is no longer actively providing services for purposes of the Award (including whether the Grantee may still be considered to be providing services while on a leave of absence).4.Issuance of Shares of Stock. Â As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares of Stock.5.Incorporation of Plan. Â Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Â Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.â€‹26.Responsibility for Taxes. Â The Grantee acknowledges that, regardless of any action taken by the Company, or if different, the Affiliate which employs the Grantee or for which the Grantee otherwise provides service (the â€œService Recipientâ€), the ultimate liability for all income tax, social security contributions, payroll tax, fringe benefits tax, payment on account or other tax-related items related to the Granteeâ€™s participation in the Plan and legally applicable or deemed legally applicable to the Grantee (â€œTax-Related Itemsâ€) is and remains the Granteeâ€™s responsibility and may exceed the amount, if any, actually withheld by the Company or the Service Recipient. Â The Grantee further acknowledges that the Company and/or the Service Recipient (i) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units or the underlying shares of Stock, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of shares of Stock acquired pursuant to such settlement and the receipt of any dividends; and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate the Granteeâ€™s liability for Tax-Related Items or achieve any particular tax result. Â Further, if the Grantee is subject to Tax-Related Items in more than one jurisdiction, the Grantee acknowledges that the Company and/or the Service Recipient (or former service recipient, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.In connection with any relevant taxable or tax withholding event, as applicable, the Grantee agrees to make adequate arrangements satisfactory to the Company and/or the Service Recipient to satisfy all Tax-Related Items. Â In this regard, the Grantee authorizes the Company and/or the Service Recipient, or their respective agents, at their discretion, to satisfy any applicable withholding obligations or rights with regard to all Tax-Related Items by one or a combination of: (i) requiring the Grantee to make a payment in a form acceptable to the Company; (ii) withholding from the Granteeâ€™s wages or other cash compensation payable to the Grantee; (iii) withholding from proceeds of the sale of shares of Stock acquired upon settlement of the Restricted Stock Units either through a voluntary sale or through a mandatory sale arranged by the Company (on the Granteeâ€™s behalf pursuant to this authorization without further consent); (iv) withholding shares of Stock to be issued upon settlement of the Restricted Stock Units; (v) any other method of withholding determined by the Company and, to the extent required by applicable law or the Plan, approved by the Administrator.The Company may withhold or account for Tax-Related Items by considering statutory or other withholding rates, including minimum or maximum rates applicable in the Granteeâ€™s jurisdiction(s). Â In the event of over-withholding, the Grantee may receive a refund from the Company of any over-withheld amount in cash (with no entitlement to the equivalent in shares of Stock), or if not refunded by the Company, the Grantee must seek a refund from the local tax authorities to the extent the Grantee wishes to recover the over-withheld amount in the form of a refund. Â If the obligation for Tax-Related Items is satisfied by withholding shares of Stock, for tax purposes, the Grantee will be deemed to have been issued the full number of shares of Stock subject to the vested Restricted Stock Units, notwithstanding that a number of the shares of Stock is held back solely for the purpose of paying the Tax-Related Items. Â The Company may refuse to issue or deliver the shares of Stock or the proceeds from the sale of shares of Stock to the Grantee if the Grantee fails to comply with the Granteeâ€™s obligations in connection with the Tax-Related Items.â€‹3Finally, the Grantee agrees to pay to the Company or the Service Recipient any amount of Tax-Related Items that the Company or the Service Recipient may be required to withhold or account for as a result of the Granteeâ€™s participation in the Plan that cannot be satisfied by the means previously described. Â The Company may refuse to issue or deliver the underlying shares of Stock, if the Grantee fails to comply with his or her obligations in connection with the Tax-Related Items.7.Nature of Grant. Â In accepting the Restricted Stock Units, the Grantee acknowledges, understands and agrees that:(a)the Plan is established voluntarily by the Company, it is discretionary in nature and it may be modified, amended, suspended or terminated by the Company at any time, to the extent permitted by the Plan;(b)the grant of the Restricted Stock Units is exceptional, voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;(c)all decisions with respect to future Restricted Stock Units or other awards, if any, will be at the sole discretion of the Administrator;(d)the Grantee is voluntarily participating in the Plan;(e)the Restricted Stock Units are granted as an incentive for future services and in no event should be considered as compensation for, or relating in any way to, past services for the Company or Service Recipient;(f)the Restricted Stock Units and the shares of Stock subject to the Restricted Stock Units, and the income from and value of same, are not intended to replace any pension rights or compensation;(g)the Restricted Stock Units and the shares of Stock subject to the Restricted Stock Units, and the income from and value of same, are not part of normal or expected wages or salary for any purposes, including, but not limited to, calculation of any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, holiday pay, long-service awards, pension or retirement benefits or similar payments;(h)the future value of the underlying shares of Stock is unknown and cannot be predicted with certainty;(i)the value of the shares of Stock acquired upon settlement of the Restricted Stock Units may increase or decrease in value;(j)unless otherwise agreed with the Company in writing, the Restricted Stock Units and the shares of Stock subject to the Restricted Stock Units, and the income from and value of same, are not granted as consideration for, or in connection with, the service the Grantee may provide as a director of any Affiliate;â€‹4(k)no claim or entitlement to compensation or damages shall arise from forfeiture of the Restricted Stock Units resulting from the termination of the Granteeâ€™s Service Relationship (for any reason whatsoever whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Grantee is providing services or the terms of the Granteeâ€™s employment or other service agreement, if any); and(l)neither the Company nor any Affiliate shall be liable for any foreign exchange rate fluctuation between the Granteeâ€™s local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to the Grantee pursuant to the settlement of the Restricted Stock Units or the subsequent sale of any shares of Stock acquired upon settlement.8.No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Granteeâ€™s participation in the Plan, or the Granteeâ€™s acquisition or sale of the underlying shares of Stock. The Grantee should consult with the Granteeâ€™s own personal tax, legal and financial advisors regarding the Granteeâ€™s participation in the Plan before taking any action related to the Plan.9.Section 409A of the Code. Â This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as â€œshort-term deferralsâ€ as described in Section 409A of the Code.10.No Obligation to Continue Service Relationship. Â Neither the Company, the Service Recipient nor any other Affiliate is obligated by or as a result of the Plan or this Agreement to continue the Granteeâ€™s Service Relationship and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Affiliate, as applicable, to terminate the Granteeâ€™s Service Relationship at any time.11.Integration. Â This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.12.Data Privacy Consent.(a)Data Collection and Usage. The Company and the Service Recipient collect, process and use certain personal information about the Grantee, including, but not limited to, the Granteeâ€™s name, home address, telephone number, email address, date of birth, social insurance number, passport or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Company, details of all Restricted Stock Units granted under the Plan or any other entitlement to shares of Stock awarded, cancelled, exercised, vested, unvested or outstanding in the Granteeâ€™s favor (â€œDataâ€), for the legitimate purpose of implementing, administering and managing the Plan. Where required, the legal basis for the collection and processing of Data is the Granteeâ€™s consent.(b)Stock Plan Administration and Service Provider. Â The Company will transfer Data to independent service providers, including Morgan Stanley and Broadridge Corporate Issuer Solutions, which are assisting the Company with the implementation, administration and management of the Plan (individually, the â€œService Providerâ€). Â Theâ€‹5Grantee may be asked to agree on separate terms and data processing practices with the Service Provider, with such agreement being a condition to the ability to participate in the Plan. Â Where required, the legal basis for the transfer of Data to the Service Provider is the Granteeâ€™s consent.(c)International Data Transfers. Â The Company and the Service Provider are based in the United States. The Granteeâ€™s country or jurisdiction may have different data privacy laws and protections than the United States. The Companyâ€™s legal basis, where required, for the transfer of Data is the Granteeâ€™s consent.(d)Data Retention. Â The Company will hold and use Data only as long as is necessary to implement, administer and manage the Granteeâ€™s participation in the Plan, or as required to comply with legal or regulatory obligations, including under tax, exchange control, securities and labor laws. This may mean Data may be retained until after the Granteeâ€™s Service Relationship ends, plus any additional time periods necessary for compliance with law, exercise or defense of legal rights, archiving, back-up and deletion purposes.(e)Voluntariness and Consequences of Consent Denial or Withdrawal. Participation in the Plan is voluntary and the Grantee is providing the consents herein on a voluntary basis. The Grantee understands that the Grantee may request to stop the transfer and processing of the Data for purposes of the Granteeâ€™s participation in the Plan and that the Granteeâ€™s Service Relationship will not be affected. The only consequence of refusing or withdrawing consent is that the Company would not be able to allow the Grantee to participate in the Plan. The Grantee understands that the Data will still be processed in relation to the Granteeâ€™s Service Relationship for record-keeping purposes.(f)Data Subject Rights. Â The Grantee may have a number of rights under data privacy laws in the Granteeâ€™s jurisdiction. Â Depending on where the Grantee is based, such rights may include the right to (i) request access to or copies of Data the Company processes, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict the processing of Data, (v) restrict the portability of Data, (vi) lodge complaints with competent authorities in the Granteeâ€™s jurisdiction, and/or (vii) receive a list with the names and addresses of any potential recipients of Data. Â To receive clarification regarding these rights or to exercise these rights, the Grantee can contact the Granteeâ€™s local human resources representative.13.Notices. Â Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.14.Governing Law and Venue. Â This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the State of Delaware, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware. For purposes of any action, lawsuit or other proceedings brought to enforce this Agreement, relating to it, or arising from it, the parties hereby irrevocably consent to the exclusive jurisdiction and venue of the state and federal courts located in the state of Delaware.â€‹615.Compliance with Law. Â Notwithstanding any other provision of the Plan or this Agreement, unless there is an available exemption from any registration, qualification or other legal requirement applicable to the shares of Stock, the Company shall not be required to permit the vesting of the Restricted Stock Units and/or deliver any shares of Stock prior to the completion of any registration or qualification of the shares of Stock under any U.S. or non-U.S. local, state or federal securities or exchange control law or under rulings or regulations of the U.S. Securities and Exchange Commission (â€œSECâ€) or of any other governmental regulatory body, or prior to obtaining any approval or other clearance from any local, state, federal or foreign governmental agency, which registration, qualification or approval the Company shall, in its absolute discretion, deem necessary or advisable. Â The Grantee understands that the Company is under no obligation to register or qualify the shares of Stock with the SEC or any U.S. state or non-U.S. securities commission or to seek approval or clearance from any governmental authority for the issuance or sale of the shares of Stock subject to this Restricted Stock Unit. Â Further, the Grantee agrees that the Company shall have unilateral authority to amend this Agreement without the Granteeâ€™s consent to the extent necessary to comply with securities or other laws applicable to issuance of the shares of Stock subject to the Restricted Stock Units.16.Electronic Delivery and Participation. Â The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means. Â The Grantee hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line electronic system established and maintained by the Company or a third party designated by the Company.17.Language. Â The Grantee acknowledges that he or she is sufficiently proficient in English, or has consulted with an advisor who is sufficiently proficient in English, so as to allow the Grantee to understand the terms and conditions of this Agreement. Â If the Grantee has received this Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.18.Addendum. Â Notwithstanding any provisions in this Restricted Stock Unit Award Agreement for Non-U.S. Grantees, the Restricted Stock Units shall be subject to any additional terms and conditions for the Granteeâ€™s country set forth in the Addendum attached hereto. Â Moreover, if the Grantee relocates to one of the countries included in the Addendum, the additional terms and conditions for such country, if any, will apply to the Grantee, to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. Â The Addendum constitutes part of this Agreement.19.Imposition of Other Requirements. Â The Company reserves the right to impose other requirements on the Granteeâ€™s participation in the Plan, on the Restricted Stock Units and on the shares of Stock acquired upon the vesting of the Restricted Stock Units, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require the Grantee to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.20.Waiver. Â The Grantee acknowledges that a waiver by the Company of breach of any provision of this Agreement shall not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by the Grantee or any other grantee.â€‹721.Severability. Â The provisions of this Agreement are severable and if any one or more provisions are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable.22.Insider Trading Restrictions/Market Abuse Laws. Â The Grantee acknowledges that, depending on his or her country, the Grantee may be subject to insider trading restrictions and/or market abuse laws in applicable jurisdictions, which may affect his or her ability to acquire, sell or attempt to sell shares of Stock or rights to shares of Stock (e.g., Restricted Stock Units) Â under the Plan during such times as the Grantee is considered to have â€œinside informationâ€ regarding the Company (as defined by laws in the applicable jurisdiction or the Granteeâ€™s country). Â Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. Â The Grantee acknowledges that it is his or her responsibility to comply with any applicable restrictions as well as any applicable Company insider trading policy, and the Grantee is advised to speak to his or her personal advisor on this matter.23.Foreign Asset/Account Reporting Requirements. Â The Grantee acknowledges that there may be certain foreign asset and/or account reporting requirements which may affect the Granteeâ€™s ability to acquire or hold the shares of Stock acquired under the Plan or cash received from participating in the Plan (including from any dividends paid on the shares of Stock acquired under the Plan) in a brokerage or bank account outside the Granteeâ€™s country. Â The Grantee may be required to report such accounts, assets or transactions to the tax or other authorities in his or her country. Â The Grantee also may be required to repatriate sale proceeds or other funds received as a result of participating in the Plan to the Granteeâ€™s country through a designated bank or broker within a certain time after receipt. Â The Grantee acknowledges that it is his or her responsibility to be compliant with such regulations, and the Grantee is advised to speak to his or her personal advisor on this matter.â€‹Â Â Â PLUG POWER INC.â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹By:â€‹â€‹â€‹â€‹Title:â€‹â€‹8The foregoing Agreement (including the Addendum attached hereto) is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Â Electronic acceptance of this Agreement pursuant to the Companyâ€™s instructions to the Grantee (including through an online acceptance process) is acceptable.â€‹â€‹â€‹â€‹Dated:â€‹Â Â Â â€‹â€‹â€‹Granteeâ€™s Signatureâ€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Granteeâ€™s name and address:â€‹9 EX-10.6 5 plug-20240630xex10d6.htm EX-10.6 Exhibit 10.6â€‹SUBLEASE AGREEMENTâ€‹â€‹â€‹VISTA REAL ESTATE DEVELOPMENT LLCLANDLORDâ€‹â€‹â€‹andâ€‹â€‹PLUG POWER, INC. TENANTâ€‹â€‹â€‹â€‹â€‹For a portion of the premises located at 125 Vista Boulevard, Town of Bethlehem, County of Albany, State of New Yorkâ€‹TABLE OF CONTENTSâ€‹LIST OF EXHIBITSâ€‹â€‹â€‹â€‹EXHIBIT A - Site PlanÂ Â Â Â A-1EXHIBIT B - Fee Owner Recognition Agreementâ€‹B-1EXHIBIT C -Lease Commencement Agreementâ€‹C-1EXHIBIT D-Plans and Specifications -Landlordâ€™s Workâ€‹D-1EXHIBIT E - Subordination Non Disturbance Agreementâ€‹E-1EXHIBIT F Estoppelâ€‹â€‹EXHIBIT G - Pilot Scheduleâ€‹â€‹EXHIBIT H - Green Building Practicesâ€‹â€‹â€‹â€‹BASIC SUBLEASE INFORMATIONThe Basic Sublease Information outlines some of the material business terms of the Lease, however it is qualified in all respects by the applicable provisions of the Lease, and if there is a conflict between the Basic Lease Information and the provisions of the Lease, the Lease shall control.â€‹â€‹â€‹Date of Lease:December 15, 2021â€‹â€‹Landlord:Vista Real Estate Development LLCâ€‹â€‹Tenant:Plug Power, Inc.â€‹â€‹Building Address:125 Vista Boulevard, Town of Bethlehem, County of Albany, State of New Yorkâ€‹â€‹Building size:Deemed to be 350,000 square feetâ€‹â€‹Improvements:Deemed to be 350,000 square feetâ€‹â€‹Term:Fifteen (15) years from the Full Rent Commencement Dateâ€‹â€‹TargetÂ DateÂ forÂ Full RentÂ Commencement:December 31, 2022â€‹â€‹InitialÂ AnnualÂ RentÂ upon FullÂ RentÂ Commencement:$3,517,500.00 ($10.05 per SF)â€‹â€‹Additional Rent:See Paragraph 3.02 of the Leaseâ€‹â€‹Initial Monthly Rent Upon Full Rent Commencement:$293,125.00â€‹â€‹Extension Term:See Paragraph 2.02 of the Leaseâ€‹â€‹Service of Notices:By registered or certified mail, or express mail as set forth in Article 22 of the Leaseâ€‹â€‹State:New Yorkâ€‹â€‹SUBLEASE AGREEMENTâ€‹PARTIESâ€‹THIS SUBLEASE (â€œLeaseâ€), made as of the 15th day of December 2021, by and between Vista Real Estate Development LLC, having its principal office at 302 Washington Avenue Extension, Albany, New York 12203 (â€œLandlordâ€) and Plug Power, Inc. a New York corporation with an address at 968 Albany Shaker Road, Latham, New York 12110 (â€œTenantâ€).â€‹ARTICLE lLEASE OF PREMISES/EXPANSION OPTIONâ€‹Section 1.01. Lease of Premises. Landlord has a ground leasehold interest in the Project defined herein. The ground lease will be for an initial term of 99 years with an option to extend the ground lease for an additional 99 years. Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, upon and subject to the covenants, agreements, provisions and conditions of this Lease an approximate 24.54 acre parcel of land (â€œLandâ€) along with 350,000 square foot of space as follows: a 200,000 square foot one story warehouse/manufacturing building (â€œPhase Iâ€), a 50,000 square foot, two story office building (â€œPhase 2â€) and a 100,000 square foot, one story service building (â€œPhase 3â€) (each a â€œBuilding and collectively the â€œBuildingsâ€) (the Buildings and Land and other appurtenances thereof including but not limited to landscaping, sidewalks, driveways, parking areas and curbs are collectively referred to in this Lease as the â€œLeased Premisesâ€ or â€œProjectâ€ or â€œPremisesâ€), as more particularly shown on the site plan attached hereto as Exhibit A (â€œSite Planâ€).Section 1.02. Parking. Landlord shall provide to Tenant 300 lighted parking spaces in Phase 1 and 300 lighted parking spaces in Phase 2 and 3, in such locations shown on the Site Plan, for a total of 600 lighted parking spaces at the Project. Notwithstanding the foregoing however, in no event shall the available parking be less than required by municipal code as of the Full Rent Commencement Date. Landlord shall also provide to the Tenant parking for up to 25 tractor trailers and a one (1) acre laydown area.Section 1.03 Easement Area. The Landlord has an easement over a portion of the Option Property [defined in Section 1.04 herein] which will be used for a portion of the Tenant parking and roadways for circulation and guard shed. For all purposes in this Lease, the Easement Area will be included in the definition of the Leased Property except for the payment of Annual Rent. During the term of the Lease Tenant shall keep and maintain the parking, roadways and guard shed in good condition and repair. The easement area will in no way obstruct the Tenantâ€™s access and use of the premises. The Landlord further agrees to provide a survey showing the easement area.â€‹Section 1.04. Fee Owner Recognition. The Landlord will obtain from the fee owner of the Land a fee owner recognition agreement in favor of Tenant the form of which is attached hereto as Exhibit B.â€‹â€‹ARTICLE 2TERM/ EARLY TERMINATION OPTIONâ€‹Section 2.01. Initial Term. The Lease shall be effective upon execution by both parties. Tenant shall lease the Leased Premises to commence on the Term Commencement Date, as hereinafter defined, subject to extension as hereinafter provided. The Initial Term shall expire on the fifteen (15) year anniversary of the Full Rent Commencement Date. Within ten (10) days after the Full Rent Commencement Date, the parties shall enter into an Agreement of Lease Commencement, in the form marked Exhibit C, setting forth the commencement, rent commencement and expiration dates of the Initial Term and the commencement date of the Extension Term[s] (as hereinafter defined).â€‹Section 2.02. Extension Terms. Tenant is hereby granted six (6) options to extend the Term of this Lease (the â€œExtension Termâ€) for an additional five (5) year term each upon the following terms and conditions: (A)At the time of the exercise of the option to extend and at the time of said extension, the Tenant shall not be in default in accordance with the terms and provisions of this Lease.â€‹(B)Notice of the exercise of the option to extend with respect to each option term shall be received by the Landlord in writing at least twelve (12) months before the expiration of the then existing Term (â€œExercise Noticeâ€). Landlord will provide Tenant with written notice of the coming extension option date a minimum of six (6) months in advance of Tenantâ€™s required notice.â€‹(C)The annual rent during each the Extension Term shall be as set forth in Section 3.01 of this Lease.â€‹Section 2.03. Term of this Lease. The word â€œTermâ€ and the words â€œTerm of this Leaseâ€ shall mean the Initial Term and any Extension Term which may become effective.â€‹Section 2.04. Termination Option. Provided Tenant is not in default of this Lease, it shall have the option at any time after IO years from the Full Rent Commencement Date and during the initial term of the Lease, to terminate this Lease upon 9 months prior written notice to the Landlord. Such notice shall not be given until the IO year anniversary of the Full Rent Commencement Date. Such notice shall be accompanied by a payment in the amount of (i) 65% of the unpaid Annual Rent from the date of termination until the end of the term, (ii) the unamortized Allowance as of the date of the termination, (iii) the unamortized Broker commission as of the date of termination (iv) any recapture amounts due and owing to the Agency and (iv) the unamortized Additional Allowance. In the event the Agency has not imposed a recapture as of the date of termination, it may still impose a recapture payment on Landlord and Tenant shall pay such amount whenever it becomes due and payable and this provision shall survive the termination of this Lease.â€‹ARTICLE 3RENT, ADDITIONAL RENTâ€‹Section 3.01. Annual Rent. The Project shall be constructed and delivered in three phases, Phase 1, Phase 2 and Phase 3. Initial Annual Rent shall be the product of $10.05 per square footâ€‹â€‹multiplied by the square footage of the Buildings. Commencing on the first year anniversary of the Full Rent Commencement Date, Annual Rent shall be increased by 1% over the Annual Rent in effect during the preceding Lease Year. It is anticipated the three Phases shall be delivered on different dates therefore Annual Base Rent shall commence as each Phase is delivered as set forth herein.With respect to Phase 1, Tenant shall commence payment of Annual Rent five (5) months from the date Landlord delivers Phase 1 to Tenant. (â€œPhase 1 Commencement Dateâ€)With respect to Phase 2, Tenant shall commence payment of Annual Rent on the date Landlord delivers Phase 2 to Tenant in accordance with the terms of this Lease. (â€œPhase 2 Commencement Dateâ€)With respect to Phase 3, Tenant shall commence payment of Annual Rent on the date Landlord delivers Phase 3 to Tenant in accordance with the terms of this Lease. (â€œPhase 3 Commencement Dateâ€)The date that all three Phases have been delivered to the Tenant shall be the â€œFull Rent Commencement Dateâ€.Annual Rent Extension Terms. Annual Rent during each Extension Term if exercised shall continue to increase 1% per annum above the prior yearsâ€™ Annual Rent.Reduction in Annual Rent. Tenant shall have the option at any time prior to the Term Commencement Date, pay to Landlord [or its designated contractor directly], in million dollar increments, such amounts to lower the Annual Rent. The maximum payment shall not exceed $5,000,000. For every $1,000,000 paid to Landlord [or its designated contractor directly] the Annual Rent shall decrease $0.21 per square foot. In order to exercise this option, Tenant must provide Landlord with written notice, on or before April 1, 2022, of its intent to pay such sums to Landlord [or its designated contractor] with such payments being made prior to Term Commencement Date. Payments must be made in million dollar increments. Upon making such payment the parties shall, within 20 days of Landlordâ€™s [or its designated contractor directly] receipt of such payment, enter into an amendment to this Lease setting forth the new Annual Rent schedule.Annual Rent shall be due on the first day of each calendar month during the Initial Term. Rent for any period of less than one month shall be apportioned based on the number of days in that month. Tenant will pay the Annual Rent and Additional Rent to the Landlord at 302 Washington Avenue Extension, Albany, New York 12203 or to such other person or at such other place as Landlord may designate in writing. Tenant shall pay the Annual Rent and Additional Rent promptly as and when the same shall become due and payable, without demand therefor and without abatement, deduction or setoff except as expressly provided in this Lease. In the event that Landlord does not receive the Annual Rent and all Additional Rent due hereunder within ten (10) days after its due date, Tenant shall pay to Landlord a late charge at a rate of one and one-half percent (1.5%) per month for each dollar overdue. Such late charge shall be deemed Additional Rent for all purposes under this Lease.â€‹â€‹Section 3.02. Additional Rent. In addition to Annual Rent, Tenant shall pay â€œAdditional Rentâ€ which shall mean all sums of money payable by Tenant under this Lease other than Annual Rent. The Annual Rent and the Additional Rent are hereafter collectively referred to as the â€œRentâ€.Section 3.03. Monthly Administrative Fee. Commencing on the Term Commencement Date, Tenant shall pay to Landlord a monthly fee equal to $500 to administer the real estate tax collection and payment, Albany County Industrial Development Agency reporting requirements and collection of insurance premiums. The administrative fee shall be paid on the first day of each month during the term of the Lease along with the payment of rent.Section 3.04. Real Estate Taxes. Landlord shall pay when due all real estate and school taxes and special assessments, business improvement district taxes, payment in lieu of taxes, and all other taxes, duties, charges, fees and payments imposed, assessed or levied upon, or arising in connection with the ownership, use, occupancy or possession of the Building and Premises or any part thereof during the term of the Lease (â€œTaxesâ€). With respect to all or any part of Taxes which falls within the Term, Tenant shall pay to Landlord when due, as Additional Rent, Tenantâ€™s Share of Taxes commencing on the Term Commencement Date. Tenantâ€™s Share is calculated to be 100.00 % of Taxes. Such Tenantâ€™s Share shall be paid by Tenant within thirty (30) days after receipt of an invoice therefore from Landlord which includes an itemized statement of the Taxes paid by Landlord and copies of the invoices for such Taxes received by Landlord. Failure of Landlord to provide such statement within the time prescribed shall not relieve Tenant of its obligations hereunder. Upon request of Landlord, Tenantâ€™s Share shall be paid by Tenant in monthly installments in such amounts as are estimated and billed by Landlord at the beginning of each twelve (12) month period commencing and ending on date designated by Landlord, each installment being due on the first day of each calendar month. At any time during each twelve (12) month period, Landlord may re-estimate Tenantâ€™s Share of Taxes and adjust Tenantâ€™s monthly installments payable thereafter during such twelve (12) month period to reflect more accurately Tenantâ€™s Share of Taxes. Within one hundred twenty (120) days (or such additional time thereafter as is reasonable under the circumstances), after the end of each such twelve (12) month period, the monthly installments paid or payable shall be adjusted between Landlord and Tenant, and Tenant shall pay Landlord or Landlord shall credit Tenantâ€™s account, as the case may be, within thirty (30) days of receipt of a statement from Landlord to Tenant, such amounts as may be necessary to effect adjustment to the agreed Tenantâ€™s Share. Failure of Landlord to provide such statement within the time prescribed shall not relieve Tenant of its obligations thereunder. Initial year Taxes are estimated at $1.05 per square foot to the best of Landlordâ€™s knowledge.At Landlordâ€™s option, however, Tenant shall pay the Taxes directly to the applicable taxing jurisdictions when due and shall send copies of paid receipts to the Landlord within 20 days from the date such payments are made.Landlord will apply for a payment in lieu of tax agreement with the applicable municipal industrial development agency in accordance with the schedule attached hereto as Exhibit G (â€œPilot Scheduleâ€).Section 3.05. Utility Charges. Commencing on the Term Commencement Date and continuing throughout the Term of this Lease, the Tenant, at its sole cost and expense, shall arrange for and pay directly to the utility provider for electricity, water, sewer, gas, communications and all otherâ€‹utility services to the portions of the Leased Premises as they are delivered to Tenant. For example, Tenantâ€™s obligations to pay utilities for Phase 1 shall commence on the date Phase 1 is delivered to Tenant but Tenant shall not be obligated to pay utilities for Phase 2 or Phase 3 until such Phases are delivered to Tenant. All such fees and charges shall be paid timely before the imposition of any late fees or penalties. Landlord shall not be liable in the event of interruption in the supply of any utilities. In the event there are utility charges for a particular Phase which has not yet been delivered to the Tenant the Tenant shall only be required to pay its proportionate share of the utility invoice based upon the phases delivered to Tenant upon receipt of such invoice.Section 3.06. Financial Statements. Upon Landlordâ€™s written request, the Tenant shall promptly furnish Landlord with reasonable portions of Tenantâ€™s financial statements certified by Tenant as true and complete, which accurately reflect such partyâ€™s current financial position. Notwithstanding, financial information shall not be required if Tenant is a publicly traded company. Landlord shall hold such financial statements as confidential and business propriety information of the Tenant and except for Landlordâ€™s lender, Landlord shall not release or distribute such financial statements without Tenantâ€™s prior written permission.Section 3.07. Janitorial Services/Trash Removal Tenant shall provide, at its sole cost and expense, janitorial service to the Leased Premises, sufficient to maintain the Leased Premises in a Class A manner at all times. Tenant hereby covenants and agrees to handle, store and dispose of all Hazardous Materials generated within the Leased Premises in accordance with applicable federal, state and local and environmental and safety laws. Tenant shall, at its sole cost and expense, be responsible for removing all waste and recyclables from the Leased Premises for disposal by Tenantâ€™s waste contractor. In the event Tenant shall fail to comply with the provisions of this Section 3.07, Landlord may, upon three (3) Business Daysâ€™ Notice, perform same and charge Tenant, as Additional Rent, the cost thereof, together with an administrative/overhead fee of fifteen percent (15%).ARTICLE 4PREPARATION FOR OCCUPANCYSection 4.01 Construction Landlordâ€™s Work. (A) Landlord shall promptly commence, and shall pursue with due diligence until completion, construction of the Landlordâ€™s Work. Landlordâ€™s Work shall be the work set forth in the floor plans and specifications attached to this Lease as Exhibit D (â€œLandlordâ€™s Workâ€). Landlord shall pay for all of the cost of the Landlordâ€™s Work. Any changes to the Landlordâ€™s Work shall be paid by Tenant as Change Orders, as hereinafter defined. Landlord shall deliver each Phase of the Leased Premises with Landlordâ€™s Work substantially completed. Changes to the Landlordâ€™s Work shall be deemed change orders, to be paid for by Tenant. Landlord intends to complete construction of Landlordâ€™s Work with respect to Phase 1 on the Phase 1 Completion Date and to complete construction of Landlordâ€™s Work with respect to Phase 2 and Phase 3 on the Phase 2 and Phase 3 Completion Date, but this date may be extended for Tenant Delays (hereinafter defined). The Landlord shall not be liable in damages to Tenant for failure to substantially complete the construction of the Project and the Landlordâ€™s Work by the Phase 1 Completion Date or the Phase 2 and Phase 3 Completion Date, provided such failure is the result of a Tenant Delay.Landlord agrees to use â€œGreen

Building Practicesâ€ in construction as such term is defined inâ€‹Exhibit H attached hereto and the Landlord and Tenant shall work together to identify the green components for construction.Landlord agrees to work with National Grid to cause Vista Technology Park to be served by a second existing National Grid substation (â€œRedundant Power Feedâ€). The cost of the Redundant Power Feed is not included in Landlordâ€™s Work and shall be paid for by Tenant directly or deducted from the Allowance.Landlord agrees to work with Tenant and National Grid to expeditiously process an interconnect application for this property.(B)If the cost of construction of the Landlordâ€™s Work is increased as a result of any Change Orders (hereinafter defined) (i) requested by Tenant, or (ii) as a direct result of any delay caused by Tenant, then Tenant shall pay to Landlord the amount by which the cost and expense was increased by such Change Order, and/or delay, which payment shall be made on the date which is ten (10) Business Days after Landlord shall have delivered to Tenant a bill in reasonable detail specifying the cost of such Change Order and/or delay. Landlord shall obtain or cause to be obtained all building permits, licenses and other governmental approvals which may be required to permit the construction of the Landlordâ€™s Work. Promptly thereafter, Landlord shall commence and proceed with due diligence and without delay, to construct the Landlordâ€™s Work in accordance with the plans and specifications, in a good and workman like manner. The term â€œChange Orderâ€ as used in this section shall mean the costs incurred by the Landlord in connection with any change to the plans and specifications, including without limitation, construction costs and architectural and engineering fees associated with reviewing and revising the approved plans and specifications, plus overhead and profit [5% overhead and 5% profit], the increased costs of various trade contractors due to delay in completing the Landlordâ€™s Work, and costs associated with cancellation of materials already ordered.(C)Tenant will give full cooperation in having available those persons who are necessary to settle problems arising out of job conditions. Tenant shall designate one or more representatives who shall have authority to bind Tenant as to all construction-related matters including, without limitation, ordering changes in the Work, provided that any Change Order shall be countersigned by a representative of Tenant; it is understood and agreed that Matt Savoie (the â€œAuthorized Agentâ€) shall have the authority to bind the Tenant to Change Orders resulting in any changes to the approved plans and specifications.(D)Tenant shall have access to the Phase 1 thirty (30) days prior to the Phase 1 Substantial Completion Date for the installation of Tenantâ€™s Work. Tenant agrees it shall not interfere with or delay Landlordâ€™s Work.(E)If the date of the respective Substantial Completion of Landlordâ€™s Work shall be delayed due to any Tenant Delay (hereinafter defined), Substantial Completion for such Phase shall be deemed to have been achieved on the Scheduled Completion Date and the period of time of the delay shall be added to the time in which the Landlord may perform its obligations. The term â€œTenant Delayâ€ shall include, without limitation, any of the following which delays the completion of the Landlordâ€™s Work:â€‹(1)The Landlord shall provide in writing all questions and clarification as to scope of the plans and specifications. Tenant will then have seven (7) days to answer in writing for items on the critical path. Failure to provide responses within aforementioned number of days shall be a Tenant Delay.(2)Delays due to - (a)Changes made by or on behalf of Tenant in Tenantâ€™s plans or in Landlordâ€™s Work;(b)Postponement of any Landlordâ€™s Work at Tenantâ€™s request or because of any Tenantâ€™s work required to be performed in advance of items of Landlordâ€™s Work so postponed;(c)Delays resulting from interference with Landlordâ€™s Work in the Leased Premises or relating to the Building by Tenant, its agents, servants or employees;(d)Commercial unavailability of any materials necessary to complete a Change Order;(e)Delay due to Tenant failing to timely supply the design information for equipment to be incorporated into the building; or(f)Any other failure of Tenant to comply with any of its obligations under this Lease.Upon receipt by the Tenant of notice of the occurrence of a delay under item (2)(d) above, the Tenant shall have the right within ten (10) Business Days after receipt of such notice to substitute available materials in order to avoid a Tenant Delay, provided the Tenant pays to the Landlord the net increase in cost caused by such substitution in accordance with Section 4.01(B) above. In any event, the Landlordâ€™s Work shall be deemed Substantially Completed (as hereinafter defined) when the Tenant occupies the Leased Premises or any part thereof.(F)In the performance of Landlordâ€™s Work, Landlord may substitute materials of equal or better quality.Section 4.01(A) Construction Tenantâ€™s Work/Allowances: Any work required by Tenant for the use and operation of the Project and which is not included in the Landlordâ€™s Work shall be deemed to be Tenantâ€™s Work, which shall be completed at Tenantâ€™s sole cost and expense. Article 13 of this Lease shall apply with respect to Tenantâ€™s Work. Tenant shall proceed with due diligence toward the completion of Tenantâ€™s Work. Landlord and Tenant shall cooperate and work together in connection with allowing Tenant access to the Building for the purpose of performing Tenantâ€™s Work.Landlord shall provide an allowance to Tenant in the amount of $3,400,000 (â€œAllowanceâ€) to be used by Tenant in completing Tenantâ€™s Work. Landlord shall pay the Allowance to Tenant uponâ€‹the completion of Tenantâ€™s Work, Tenant occupying the Project and paying the first month Annual Rent and providing lien waivers from all contractors, subcontractors and materialmen. If Landlord fails to pay the Allowance within 30 days from the date such Allowance is due, Tenant may offset Annual Rent in an amount equal to the unpaid Allowance.Upon request by Tenant on or before February 1, 2022 (â€œAdditional Allowance Notice Dateâ€), Tenant shall have the option to increase the Allowance up to a maximum of $2,000,000 (â€œAdditional Allowanceâ€). Tenant shall notify Landlord of the exact amount of the Additional Allowance on the Additional Allowance Notice Date. The parties agree the Additional Allowance shall be amortized over a ten (10) year term and at 4.5% interest rate. Such payments shall be considered additional rent and shall be paid by Tenant on a monthly basis on the first day of each month of the term of the Lease commencing on the Full Rent Commencement Date and continuing for ten (10) years. There shall be no increase in payments over the ten (10) year repayment period.Tenant agrees to use BBL Construction Services LLC (â€œBBLâ€) to perform Tenantâ€™s Work. Tenant and BBL will enter into a separate agreement governing the terms and conditions of their relationship vis a vis Tenantâ€™s Work.Notwithstanding anything set forth herein to the contrary, however, Landlord shall not be responsible to obtain any required operational permits for Tenantâ€™s business.Section 4.02 Substantial Completion/Term Commencement DateLandlord anticipates Substantial Completion of Phase 1 on or before July 31, 2022 (â€œPhase 1 Completion Dateâ€). If Landlord fails to achieve Substantial Completion and delivery of the Phase 1 or before the Phase 1 Completion Date for reasons other than Tenant Delay, Landlord shall provide, at its option, either (i) a credit against Rent or (ii) payment equal to $15,000 per day for each day it fails to achieve Substantial Completion as of the Phase I Completion Date.Landlord anticipates Substantial Completion of Phases 2 and 3 December 31, 2022 (â€œPhase 2 and Phase 3 Completion Dateâ€). If Landlord fails to achieve Substantial Completion and delivery of Phase 2 and Phase 3 on or before the Phase 2 and Phase 3 Completion Date for reasons other than Tenant Delay, Landlord shall provide, at its option, either (i) a credit against Rent or (ii) payment directly to Tenant equal to $15,000 per day for each day it fails to achieve Substantial Completion as of the Phase 2 and Phase 3 Completion Date.The date the Landlordâ€™s Work is substantially complete with respect to each Phase of the Project shall be the date when Landlord delivers possession of each Phase to Tenant, free of all tenants and occupants and when:(i)the Landlordâ€™s Work with respect to the Phase being delivered has been substantially completed (except for Punch List Items, as defined in Section 4.03(B)) in accordance with the provisions of this Lease; and(ii)Landlord has obtained a certificate of occupancy or comparable governmental authorization (temporary or permanent) with respect to the Phase being delivered permitting Tenantâ€™s use and enjoyment of such Phase of the Project for the purposes authorized by the provisions of this Lease. (Notwithstanding,â€‹however, no certificate of occupancy shall be required if one cannot be obtained prior to Tenant completing Tenantâ€™s Work (defined herein).The â€œTerm Commencement Dateâ€ shall be the date of substantial completion of the Landlordâ€™s Work with respect to Phase 1.Section 4.03. Punch List Items.(A)Within thirty (30) days after the date the Landlordâ€™s Work with respect to a particular Phase is Substantially Completed in accordance with Section 4.02, the Tenant shall deliver to Landlord a list of uncompleted Punch List Items (as hereinafter defined) for the Landlordâ€™s Work that Landlord is obligated by the provisions of this Lease to complete. Landlord shall proceed with due diligence to complete the Punch List Items, subject to reasonable delays as a result of seasonal conditions.(B)The term â€œPunch List Itemsâ€ shall mean details of construction, work awaiting seasonal opportunity, decoration and mechanical and electrical adjustments which, in the aggregate, are minor in character and do not materially or unreasonably interfere with Tenantâ€™s use or enjoyment of the Leased Premises in accordance with the provisions of this Lease and will not unreasonably interfere with Tenantâ€™s ability to commence or complete Tenantâ€™s Work.Section 4.04. Tenantâ€™s Rights of Access.(A)During the course of the Landlordâ€™s Work, the Tenant, its agents, employees and contractors, may enter the Leased Premises at all reasonable times for the purposes of inspection and, as soon as possible after the Landlordâ€™s Work is Substantially Completed, for the purpose of installing any Tenant improvements, fixtures and other equipment not included in the Work to be performed by Landlord (the â€œTenant Installationâ€) and which Landlord has approved in accordance with Section 13.02A without being deemed thereby to have taken possession. Tenant shall perform Tenantâ€™s Work at Tenants sole and cost and expense. Tenant agrees that during said period (a) Landlord shall have no liability to Tenant for damage to any property of Tenant stored on the Leased Premises except for damages caused by negligent acts or omissions of Landlord or its employees or agents which are not otherwise covered by Tenantâ€™s insurance, (b) Tenant shall not interfere with the Landlordâ€™s Work, (c) Tenant shall indemnify Landlord and hold Landlord harmless from and against any claims, losses, damages and expenses arising out of the negligent acts or omissions of Tenant or its employees or agents in the Project. Any such prior entry to the Leased Premises shall be at the Tenantâ€™s sole risk and (d) prior to entering the Property, Tenant shall provide Landlord with insurance as required in Section 10.02A.(B)Tenantâ€™s activity within the Leased Premises prior to the Term Commencement Date or Tenantâ€™s acceptance of possession of the Leased Premises shall not be deemed a waiver of any of the obligations under this Article to be performed by Landlord, including the completion of Punch List Items. However, after entering into possession of any part of the Leased Premises, Tenant shall promptly bring to Landlordâ€™s attention by delivery of written notice identifying any defects in construction which come to Tenantâ€™s attention within the first two (2) months following Tenantâ€™s occupancy, except for latent defects for which Tenant shall have a period of one year following Tenantâ€™s occupancy to identify in writing to Landlord, and Landlord shall promptly correct same at Landlordâ€™s expense.â€‹Section 4.05. Condition of Construction. All construction work required or permitted by this Lease, whether by Landlord or Tenant, shall be done in a good and workmanlike manner using new, first class materials and shall be in compliance with all applicable Laws. Landlord shall also obtain all licenses (except all licenses and approvals required by the Tenant to operate its business from the Leased Premises), temporary and permanent certificates of occupancy and other governmental approvals required to permit the use of the Leased Premises in accordance with this Lease except if such items cannot be obtained because Tenant has not completed Tenantâ€™s Work.ARTICLE 5ALLOWABLE USESection 5.01. Landlordâ€™s Representations Regarding Use. Landlord represents and warrants that the Leased Premises and the uses thereof for the purposes specified in this Lease are, or on the Term Commencement Date will be, in conformity with all applicable Laws, and that Landlord will deliver possession of the Leased Premises to Tenant, free of all tenants and occupants.ARTICLE 6ALBANY COUNTY INDUSTRIAL DEVELOPMENT AGENCYSection 6.01. The Landlord will apply for benefits from the Albany County Industrial Development Agency (â€œAgencyâ€), with respect to the construction, operation and assessment of the Leased Premises. The Agency offers an â€œenhancedâ€ payment in lieu of tax program along with abatements of sales tax with respect to the construction of the Project. Landlord agrees to promptly apply for such enhanced benefits and tax exemptions. The payment in lieu of tax agreement does not fix the assessment with respect to the Project but will reduce the percentage of real estate taxes to be paid with respect to the Project over the period of the agreement. There are certain reporting requirements imposed by the Agency and required pursuant to New York State law. During such period of time as the Agency has an interest in the Leased Premises the Tenant agrees to comply with such requirements as are typically imposed by the Agency and/or required by New York State Law regarding the listing or posting of job openings at the Leased Premises on transactions of this type and annual employment reporting as are typically required by the Agency on transactions of this type. During the Term of the Lease, Tenant shall also provide to the Landlord, upon request, information regarding the occupancy of the Leased Premises so that the Agency may calculate the payment in lieu of taxes due, if any, with respect to the occupancy of the Leased Premises. The Landlord shall provide specific information and forms to the Tenant regarding the particular requirements. The Tenant has provided Landlord with specific employment estimates regarding the operation by Tenant at the Leased Premises during the term of the Pilot Schedule. In the event Tenant fails to maintain such employment levels and there is a recapture of benefits imposed by the Agency, the Tenant shall be responsible to pay when due, such recapture payments. The Tenant shall indemnify, defend and hold harmless with respect to any and all recapture payments and this provision shall survive the expiration or earlier termination of this Lease.ARTICLE 7RIGHT OF FIRST OFFER/ RIGHT OF FIRST REFUSAL TO PURCHASE THE LEASED PREMISES AND PURCHASE OPTIONâ€‹Section 7.01 Right of First Offer. Provided that Tenant is not in default under the Lease and that this Lease remains in full force and effect, if at any time from and after the date of the Full Rent Commencement Date, the Landlord shall desire to transfer the ground leasehold interest and improvements in and to the Premises to an unrelated third party, the Landlord shall deliver to the Tenant a letter setting forth the asking price, terms and conditions of the proposed transfer which Landlord is willing to accept (the â€œLandlord Termsâ€). The Tenant shall have a right of first offer to purchase the Leased Premises and Tenant may, within thirty (30) days after receipt of the Landlord Terms, elect to purchase the ground leasehold interest and improvements in the Leased Premises in accordance with the Landlord Terms by delivering a written acceptance to Landlord. If the Tenant delivers timely acceptance to Landlord of Landlord Terms, the parties shall proceed to contract and closing within ninety (90) days thereafter. If the Tenant fails to deliver written acceptance of the Landlord Terms within twenty (20) days of receipt, the Tenantâ€™s right of first offer shall automatically be terminated. Notwithstanding, if the transfer to an unrelated third party doesnâ€™t close within six (6) months after Tenantâ€™s right of first offer terminates, then, Tenantâ€™s right of first offer shall be restored. This right of first offer shall not apply to a mortgagee or purchaser in foreclosure or subsequent sale by such mortgagee.Section 7.02. Right of First Refusal to Purchase the Premises. Provided Tenant is not in default under the terms of this Lease, Tenant shall have the right of first refusal to purchase the ground leasehold interest and improvements in the Premises. If the Landlord shall receive an unsolicited offer for the purchase of the ground leasehold interest in the Premises which Landlord shall desire to accept (any such offer may include a letter of intent which has not been fully negotiated, the â€œOfferâ€), the Landlord shall deliver to the Tenant a notice setting forth the asking price, terms and conditions and proposed purchase agreement (â€œSale Termsâ€). Tenant shall have a period of thirty (30) days from receipt of the Sale Terms in which to deliver to Landlord a signed purchase agreement to purchase the ground leasehold interest in the Premises upon the Sale Terms and the parties shall proceed to closing within ninety (90) days thereafter. If the Tenant fails to deliver the signed purchase agreement within thirty (30) days of receipt of the Sale Terms, the Tenantâ€™s right of first offer shall automatically be terminated. Notwithstanding, if the transfer to an =elated third party who made such unsolicited offer doesnâ€™t close within six (6) months after Tenantâ€™s right of first refusal terminates, then, Tenantâ€™s right of first refusal shall be restored. This right of first refusal shall not apply to a mortgagee or purchaser in foreclosure or subsequent sale by such mortgagee.Section 7.03 Option to Purchase the Premises. Provided Tenant is not in default under the terms of this Lease, Tenant shall have the option to purchase the ground leasehold interest and improvements in and to the Premises after the 12th year anniversary of the Full Rent Commencement Date. The option price shall be the greater of (i) Fair Market Value [defined herein] of the Premises when the option is exercised or (ii) an amount equal to the Annual Rent when the option is exercised divided by a capitalization rate of 5.5%. Tenant shall provide ninety (90) days prior written notice to Landlord of its desire to exercise this option. Once exercised, Tenant shall use its reasonable best efforts to close on the property (90) days from the date of the notice but no later than 120 days from the date of the notice. Tenant shall be responsible to pay, in addition to the option price, all of Landlordâ€™s prepayment penalties and fees, swap termination fees, in connection with any existing mortgage loan. Tenant shall pay all transfer taxes due as a result of this Option to Purchase.â€‹For purposes herein the Fair Market Value shall be the then fair market value for similar space in buildings in the Capital District (the â€œMarket Areaâ€) (with similar tenant improvements and tenants of similar credit worthiness), which Fair Market Value shall be determined as follows:(a)The Fair Market Value (â€œMarket Valueâ€) shall be proposed by Landlord in good faith within twenty (20) days after receipt of Tenantâ€™s notice that it intends to exercise its option to purchase the Premises (the â€œLandlordâ€™s Proposed Market Valueâ€). Landlordâ€™s Proposed Market Value shall be the Market Value unless Tenant notifies Landlord, within twenty (20) days of Tenantâ€™s receipt of Landlordâ€™s Proposed Market Value, that Landlordâ€™s Proposed Market Value is not satisfactory to Tenant (â€œTenantâ€™s Rejection Noticeâ€).(b)If Tenant delivers Tenantâ€™s Rejection Notice and the Market Value is not otherwise agreed upon by Landlord and Tenant within forty (40) days after Landlordâ€™s receipt of Tenantâ€™s notice that it intends to exercise its option to purchase the Premises, then the Market Value shall be determined by the following appraisal procedures:1.Within ten (10) days of the expiration of said forty (40) day period Tenant and Landlord shall give each other notice which shall specify the name and address of the Qualified Appraiser (as defined below) designated by such party (the â€œTenantâ€™s Appraisal Noticeâ€ and the â€œLandlordâ€™s Appraisal Noticeâ€). If a party (the â€œNon-Designating Partyâ€) shall fail to timely give to the other party (the â€œDesignating Partyâ€) such written notice of its designated Qualified Appraiser, then the Designating Party shall send a written notice to the Non-Designating Party stating that, if the Designating Party shall not receive a written notice from the Non-Designating Party of its Qualified Appraiser within seven (7) days following the date of said notice to the Non-Designating Party, then the determination of Market Rent by the designated Qualified Appraiser of the Designating Party shall be the Market Rent for the applicable Extended Term and be conclusive and binding on Landlord and Tenant. Such two Qualified Appraisers shall, within thirty (30) days after the designation of the Qualified Appraisers, make their determinations of the Market Value in writing and give notice thereof to each other and to Landlord and Tenant. Such two (2) Qualified Appraisers shall have thirty (30) days after the receipt of notice of each otherâ€™s determination to confer with each other and to attempt to reach agreement as to the determination of the Market Value. If such Qualified Appraisers shall concur in their determination, they shall give notice thereof to Landlord and Tenant and the amount agreed to by both Qualified Appraisers shall be final and binding upon Landlord and Tenant. If such Qualified Appraisers shall fail to concur as to such determination within said thirty (30) day period, they shall give notice thereof to Landlord and Tenant, and thereafter the two (2) Qualified Appraisers shall immediately designate a third Qualified Appraiser. If the two Qualified Appraisers shall fail to agree upon the designation of such third Qualified Appraiser within ten (10) days after said thirty (30) day period, then they or either of them shall give notice of such failure to agree to Landlord and Tenant, and if Landlord and Tenant fail to agree upon the selection of such third Qualified Appraiser within ten (10) days after the Qualified Appraiser(s) appointed by the parties give notice as aforesaid, thenâ€‹either party on behalf of both may apply to the American Arbitration Association or any successor thereto, or on his or her failure, refusal or inability to act, to a court of competent jurisdiction, for the designation of such third Qualified Appraiser.2.For purposes of this Lease, a â€œQualified Appraiserâ€ shall be an independent real estate appraiser or consultant who shall be a current member of either a member of either M.A.I. or A.S.R.E.C., and have had at least ten (10) years continuous experience in the business of appraising commercial real estate similar to the Property in the Market Area where the Property is located.3.The third Qualified Appraiser shall conduct such hearings and investigations as he or she may deem appropriate and shall, within ten (10) days after the date of his or her designation, make a determination of the Market Value in writing and give notice thereof to the other Qualified Appraisers and to Landlord and Tenant (i.e., there shall be three determinations of Market Value). The Market Value shall be the average of the two determinations that are closest in value.Each party shall pay fees, costs and expenses of the Qualified Appraiser selected by it, its own counsel fees, and one-half (1/2) of all other expenses and fees of any such appraisal.ARTICLE 8USE OF LEASED PREMISESSection 8.01. General Uses. Tenant shall have the right to use the Leased Premises for a manufacturing, warehouse and commercial office, and all other uses incidental and related thereto; including hydrogen storage and distribution and for no other use without the prior written consent of the Landlord in the exercise of Landlordâ€™s sole and absolute discretion. If any government license or permit shall be required for the proper and lawful conduct of Tenantâ€™s business or other activity carried on in the Leased Premises, and if the failure to secure such license or permit, might or would, in any way effect Landlord, then Tenant, at Tenantâ€™s expense, shall duly procure and thereafter maintain such license or permit and comply with the requirements of each such license or permit.Landlord represents the local municipality agrees Tenant may use Hydrogen at the Leased Premises both outside and inside at volumes specified by Tenant.Tenant shall have access to the Leased Premises twenty-four (24) hours a day, seven days a week throughout the Term of the Lease.ARTICLE 9REPAIRS AND MAINTENANCESection 9.01. (A) Tenantâ€™s Repairs. Any and all repairs, maintenance and replacements required at the Project and not included in the Landlord Repairs set forth in Section 9.01(B) shall be deemed to be Tenantâ€™s repair, maintenance and replacement obligation. In connection therewith, Tenant shall, at its expense, keep and maintain the interior, nonstructural portions of the Leased Premises including but not limited to all mechanical systems and plumbing hot water heater, fire extinguishers, sprinkler system, elevator maintenance, extermination services, and all HVACâ€‹equipment, mechanical systems, in good condition and repair at all times. Tenant shall, at its expense, keep and maintain Tenantâ€™s Work and signage in good condition and repair at all times. Tenant shall keep and maintain the exterior including parking areas and driveways and drive aisles in good condition and repair. The Landlord will provide the scope and specification of the paving detail which shall demonstrate the quality and workmanship of a Class A finished product for a period of five (5) years. Any replacements due to latent defect to the pavement will be the responsibility of the Landlord during the first sixty (60) months. All such repairs and necessary replacements shall be in quality and class equal to the original work and materials. Landlord shall provide Tenant with any ownerâ€™s manuals and manufacturerâ€™s warranties in Landlordâ€™s possession for any equipment that Tenant is responsible to maintain and/or repair.With respect to the heating ventilating and air conditioning (â€œHVACâ€), at all times during the term of this Lease and any extensions thereof, Tenant shall be responsible for the maintenance, repair and replacement of the HVAC system and shall maintain a quarterly service agreement with a reputable HVAC contractor acceptable to Landlord, and shall provide a copy of such agreement within thirty (30) days of occupancy of the Premises or the Tenant may elect to self-perform the HVAC maintenance and repair. The Landlord will have the right to audit Tenantâ€™s HVAC maintenance records, upon written request, and be assured the work is being conducted correctly. Each year during the term, Tenant shall provide Landlord with a current copy of said contract. Tenantâ€™s failure to maintain such contract shall be considered a default under this Lease. If Tenant fails to maintain such contract, Landlord may, but shall not be obligated to obtain a contract and the cost of same shall be considered additional rent, payable by Tenant upon receipt of an invoice.(B)Landlord Repairs. Landlord shall keep and maintain the roof and structural portion (footings, foundations and load-bearing columns) of the Building, all other repairs, maintenance and replacements required with respect to the Leased Premises shall be Tenantâ€™s obligation at its sole cost and expense. If Tenant fails to keep and maintain and replace when necessary any portion of the Leased Premises, Landlord may, at its option, make such repairs at Tenantâ€™s sole cost and expense. Such amounts shall be deemed additional rent payable by Tenant within 30 days from the date of invoice by Landlord. If in Landlordâ€™s reasonable opinion any damage or destruction requiring repair or replacement is caused by any fault, negligence, act, or omission of Tenant or Tenantâ€™s agents, employees, subcontractors or vendors, Landlord shall nevertheless make the repair and Tenant shall pay to Landlord, as additional rent, immediately upon demand, the cost therefore together with an administrative/overhead fee of five percent (5%). Landlord shall not be responsible for the maintenance and repair of Tenantâ€™s Work.ARTICLE 10FIRE AND OTHER CASUALTY-INSURANCESection 10.01. Damage or Destruction.(A)The Tenant must give the Landlord prompt written notice of fire, accident, damage or dangerous or defective condition on or about the Leased Premises. If any portion of the Building (to include any improvements to the Leased Premises, but excluding Tenantâ€™s Owned Property, as defined in Section 13.03), is damaged by fire, earthquake, flood or other casualty, or by any other cause of any kind or nature (the â€œDamaged Propertyâ€) and the Damaged Property can, in theâ€‹reasonable opinion of Landlord be repaired within two hundred forty (240) days from the date of receipt of insurance proceeds and provided that such proceeds are made available by Landlordâ€™s Mortgagee, Landlord shall proceed promptly after receipt of such insurance proceeds to commence making such repairs so as to restore the Damaged Property to the condition it was in prior to the damage. Except as hereinafter provided in Section 10.01(E), this Lease shall not terminate, but Tenant shall be entitled to a pro rata abatement of Annual Rent and Additional Rent payable during the period commencing on the date of the damage and ending on the date the Damaged Property is repaired as aforesaid and possession of the Leased Premises is delivered to Tenant. The extent of rent abatement shall be based upon the portion of the Leased Premises rendered untenantable, unfit or inaccessible for use by Tenant for the purposes stated in this Lease during such period. Notwithstanding, however, if it is reasonably determined that the damage renders the Leased Premises unfit for Tenantâ€™s use for its entire purpose, then the entire rent during the period of repair shall be abated.(B)If Landlord notifies Tenant that the Damaged Property cannot be completed within two hundred forty (240) days from the date the damage occurred, or the Lease term will expire within one (1) year from the date of the damage and Tenant fails to extend the term in accordance with Section 2.02 within thirty (30) days from the date of the damage, then either Landlord or Tenant may terminate this Lease by notice to the other party within thirty (30) days from the date the damage occurred. Upon termination, Annual Rent and Additional Rent shall be apportioned as of the date of the termination and all prepaid Annual Rent and Additional Rent shall be refunded to Tenant within thirty (30) days after the date of termination.(C)Notwithstanding anything contained in Section 10.01(A) and (B) above to the contrary, there shall be no obligation on the part of Landlord to repair the Damaged Property if, the damage occurred during the last twelve (12) months of the term of this Lease unless Tenant, within thirty (30) days after the damage, exercises its option to renew pursuant to Section 2.02 hereof.(D)If neither party exercises its option to terminate hereunder Landlord shall, with due diligence, repair the Damaged Property, except for Tenantâ€™s Owned Property and Tenantâ€™s Work, as a complete architectural unit of substantially the same usefulness, design and construction existing immediately prior to the damage. Tenant shall be entitled to a pro rata abatement of Annual Rent in the manner and to the extent provided in Section 10.01(A).(E)If by operation of this Article Landlord undertakes but fails to complete repairs of the Damaged Property (except for Tenantâ€™s Owned Property), as required by the provisions of this Article and deliver possession of the Leased Premises to Tenant within two hundred forty (240) days from the date the damage occurred for any reason other than Excusable Delay or a delay caused by Tenant, Tenant may, upon written notice to Landlord and the holder of any mortgage encumbering the Building who shall have theretofore given Tenant an address to which such notices under this Lease are to be sent, terminate this Lease. If this Lease is terminated, then the Term shall end on the date specified in the notice and Annual Rent and Additional Rent shall be apportioned as of the date of the termination and all prepaid Annual Rent and Additional Rent shall be refunded to Tenant within thirty (30) days after the date of termination.(F)Nothing in this Section 10.01 shall require Landlord to restore, repair, or replaceâ€‹any Tenantâ€™s Owned Property or Tenantâ€™s Work.Section 10.02. Insurance.(A)Tenant Insurance. Throughout the Initial Term and any Extension Term, Tenant shall carry Commercial General Liability Insurance (ISO CG 00 01 - 1993 Form or its equivalent) with respect to the Leased Premises written on an occurrence form endorsed to apply on a Primary basis including a Per Location Aggregate applicable to the Leased Premises only for the Term of this Lease. Such insurance shall be from a responsible and solvent insurance company authorized to do business in the State of New York with an A.M. Best Rating of A- or better and shall also cover the Tenantâ€™s contractual obligations set forth in this Lease. The Commercial General Liability policy shall name Landlord (and property manager, if any) as additional insured on a primary and noncontributing basis (Managers or Lessors of Premises CG 2032 or its equivalent). The policy shall contain a Waiver of Subrogation in favor of the Landlord.Such insurance shall be provided in amounts not less than the following which minimum coverage requirements may be periodically revised by Landlord in the exercise of its reasonable discretion with deductibles reasonably acceptable to Landlord (the Tenant is responsible for payment of any applicable deductibles):â€‹â€‹â€‹CoverageÂ Â Â Â Limits of LiabilityBodily Injury & Property Damage Each Occurrence Limitâ€‹$2,000,000.00General Aggregate Limit â€‹$4,000,000.00 [with a minimum of $5,000,000 excess liability]Products/Completed Operations Aggregate Limitâ€‹$4,000,000.00Personal/Advertising Injury Occurrence Limitâ€‹$2,000,000.00Fire Damage (Any One Fire)â€‹$100,000.00Medical Expense (Any One Person)â€‹$5,000.00â€‹Prior to the Term Commencement Date, Tenant shall provide a certificate of insurance to the Landlord evidencing coverages in compliance with the above requirements. The certificate of insurance shall provide thirty (30) days advance written notice to the Landlord in the event of the cancellation, change and/or non-renewal of the coverages certified. The certificate of insurance shall be renewed and submitted to the Landlord annually at least thirty (30) days prior to the expiration of Tenantâ€™s then current commercial general liability insurance policy for the duration of the Term of this Lease.During the Term of this Lease, Tenant shall also carry all risk property insurance covering Tenantâ€™s Owned Property from responsible, solvent insurance companies authorized to do business in the State of New York.Tenant shall also carry Workersâ€™ Compensation insurance including Employers Liability in compliance with New York Statutory Limits.If Tenant fails at any time to take out, pay for, or maintain and deliver certificates or other evidence of insurance acceptable to Landlord, then Landlord without waiving or releasing Tenantâ€‹from any obligation of Tenant contained in this Lease, may (but shall not be obligated to) take out, pay for and maintain any of the insurance policies provided for in this Lease and any sums paid and costs incurred by Landlord in so doing, together with interest thereon at the Lease Interest Rate shall from the date of such expenditure by Landlord until payment in full, be deemed Additional Rent.(B)Landlord Insurance. Throughout the Initial Term and any Extension Tenn, Landlord shall for the benefit of itself, its mortgagee and, to the extent applicable, Tenant, obtain the following insurance from responsible, solvent insurance companies authorized to do business in the State of New York.(i)Commercial Property Insurance, which shall at a minimum, cover the perils insured under an ISO for CP 1030 or its equivalent - All Risks Property Insurance coverage (including Flood and Earth Movement if necessary) covering the Leased Premises in an amount or amounts not less than the full replacement cost of the Building;(ii)All risk insurance covering loss of rental in an amount not Less than Annual Rent for the Building for a period of one year;(iii)Comprehensive General Liability insurance with a combined Single limit of liability of at least $2,000,000 with excess liability policy of a minimum of $5,000,000; and(iv)Such other insurance coverages and in such amounts as Landlordâ€™s Mortgagee and the applicable industrial development agency may reasonably require.Tenant shall pay Landlordâ€™s insurance premiums within 30 daysâ€™ notice by Landlord with respect to such payment. Such amounts shall be considered additional rent. Tenant shall also be responsible to pay any deductibles when due in the event of a claim.Copies of insurance certificates shall be provided to Tenant.(C)Mutual Release. Landlord and Tenant each hereby releases the other, its officers, directors, members, employees and agents, from liability or responsibility to the other or anyone claiming through or under them by way of subrogation or otherwise for any loss or damage to property to the extent covered by valid and collectable insurance with standard extended coverage endorsement, even if such loss or damage shall have been caused by the fault or negligence of the other party, or anyone for whom such party may be responsible. However, this release shall apply only to loss or damage:(i)Actually recovered from an insurance company; and(ii)Occurring during the period of time for which the releasorâ€™s insurance policies shall contain a clause or endorsement to the effect that such release shall not adversely affect or impair such policies or prejudice the right of the releasor to recover thereunder. Landlord and Tenant each agree that any insurance policies carried by each of them respectively and covering the Leased Premises or Tenantâ€™s Owned Property willâ€‹include the clause or endorsement referred to above as long as the same be obtainable without extra cost, or, if extra cost shall be charged therefore, so long as the other party pays such extra cost. If any extra cost shall be chargeable therefore, each party shall promptly advise the other of the amount of the extra cost. Landlord shall look solely to the proceeds of its respective casualty insurance policy to compensate it for any such loss, damage or destruction, except for any negligent or willful act or omission not covered by insurance and attributable to Tenant or any of its respective agents, invitees, licensees, contractors or employees for which Tenant shall remain responsible. Tenant shall look solely to the proceeds of its respective casualty insurance policy to compensate it for any such loss, damage or destruction, except for any negligent or willful act or omission not covered by insurance and attributable to Landlord or any of its respective agents, invitees, licensees, contractors or employees for which Landlord shall remain responsible. (D)Tenant Release. Notwithstanding anything to the contrary contained herein, Tenant hereby releases Landlord from liability for damage or destruction to the Tenantâ€™s Owned Property so long as they are not caused by acts or omissions of Landlord, its contractors, subcontractors and their respective invitees, employees or agents; provided, however, such release shall be in force and effect only in respect of damage or destruction covered by standard policies of fire insurance with extended coverage.ARTICLE 11INDEMNIFICATIONSection 11.01. Indemnification. (A) Subject to the provisions of Section 10.02, Tenant indemnifies, defends, and holds Landlord harmless from claims for personal injury, death, or property damage occurring in or about the Leased Premises to the extent caused by the negligence or willful misconduct of Tenant, its agents, employees, or invitees. In the event the Landlord, without fault on its part, is made a party to any litigation commenced by or against Tenant, then Tenant shall protect and hold Landlord harmless and shall pay all Landlordâ€™s costs, expenses and reasonable attorney fees.(B)Landlord indemnifies, defends, and holds Tenant harmless from claims for personal injury, death, or property damage occurring in or about the Leased Premises that are caused by the negligence or willful misconduct of Landlord, its agents, employees, or invitees. In the event the Tenant, without fault on its part, is made a party to any litigation commenced by or against Landlord, then Landlord shall protect and hold Tenant harmless and shall pay all Tenantâ€™s costs, expenses and reasonable attorney fees.(C)Notwithstanding paragraph (A) and (B) above, the parties release each other from any claims either party (â€œInjured Partyâ€) has against the other to the extent the claim is covered by the Injured Partyâ€™s insurance or the insurance the Injured Party is required to carry under Section 10.02 above, whichever is greater and provided that such policy is in fact, in effect at the time of the injury or damage.â€‹ARTICLE 12CONDEMNATIONSection 12.01. Taking-- Lease Ends. If at any time during the term of this Lease any portion of the Building shall be so taken which renders the Building unsuitable for Tenantâ€™s use in either event which is the result of a taking for any public or quasi-public use, under any statute or by right of eminent domain, then the Tenant shall have the right by written election within thirty (30) days following the date of said taking to terminate this Lease and this effective date of termination shall be the later of such vesting of title or Tenantâ€™s vacating the Leased Premises, whichever occurs earlier, except as provided in Section 12.03, and the Annual Rent and Additional Rent shall be apportioned and paid, or refunded, as the case may be, to such date.Section 12.02. Taking -- Lease Continues. If it is reasonably determined by Tenant that the portion of the Building remaining after a taking enables Tenant to continue to use the Leased Premises for its entire purposes, shall be taken this Lease shall remain unaffected, except that Tenant shall be entitled to a pro rata abatement of Annual Rent and Additional Rent based upon the proportion of the area of the Building that was so taken bears to the area of the Building, immediately prior to such taking.Section 12.03. Temporary Taking. If the use and occupancy of the whole or any part of the Leased Premises is temporarily taken for a public or quasi-public use for a period in excess of twelve (12) months or less than the balance of the lease term or any extension thereof, Tenant shall be entitled to a pro rata abatement of Annual Rent and Additional Rent, equitably adjusted as to the portion of the Leased Premises temporarily taken until such temporary taking has ceased.Section 12.04. Landlordâ€™s Award. Landlord shall be entitled to receive the entire award or awards in any condemnation proceeding without deduction therefrom for any estate vested in Tenant and Tenant shall receive no part of such award or awards from Landlord or in the proceedings except as otherwise expressly provided in this Article. Subject to the foregoing, Tenant hereby assigns to Landlord any and all of Tenantâ€™s right, title and interest in or to such award or awards or any part thereof.Section 12.05. Tenantâ€™s Award. If there is a taking hereunder, Tenant shall be entitled to appear, claim, prove and receive in the condemnation proceeding a separate award for (1) the value of Tenantâ€™s Personal Property (hereinafter defined) that are damaged, destroyed or taken hereunder; and (2) the cost of relocation; provided none of the above shall affect or impair Landlordâ€™s award.Section 12.06. Restoration by Landlord. If there is a taking hereunder and this Lease is continued, and provided that Tenant is not in default under the Lease, Landlord shall, to the extent and upon receipt of the available condemnation proceeds, proceed with reasonable diligence to repair, replace and restore as closely as possible to that which existed immediately prior to the taking the Leased Premises to include the Building, and the Leased Premises as a complete architectural unit of substantially the same proportionate usefulness, design and construction (excluding Tenantâ€™s Owned Property as hereinafter defined).â€‹Section 12.07. Definitions. Taking by condemnation or eminent domain hereunder shall include the exercise of any similar governmental power and any sale, transfer or other disposition of the Building or Land in lieu or under threat of condemnation.ARTICLE 13ALTERATIONS AND IMPROVEMENTSSection 13.01. Tenantâ€™s Changes - - No ApprovalTenant may place and replace Tenantâ€™s Personal Property in the Leased Premises as it may desire at its own expense without Landlordâ€™s consent. Tenant shall not alter, improve, replace or change the Building or the Leased Premises, except in accordance with Section 13.02.Section 13.02. Tenantâ€™s Changes -- Landlordâ€™s Approval.(A)Except with respect to non-structural changes which will be defined as changes which do not affect the structure, roof or building mechanicals or require municipal permits or approvals, and which shall be permitted upon notice to Landlord but without Landlordâ€™s consent, Tenant shall not make any alterations without Landlordâ€™s prior written consent.(B)All alterations made under this Section 13.02 shall be at the sole cost and expense of Tenant. All alterations, additions and improvements made or caused to be made by Tenant shall be completed in a good and workmanlike manner. Such alterations, additions, or improvements shall become the absolute property of Landlord at the expiration or sooner termination of this Lease without the payment of any consideration therefor, unless removed by Tenant (and any damage to the Building is repaired by Tenant contemporaneous with said removal) prior to the expiration or sooner termination of this Lease. In the event Landlordâ€™s consent is required, all permits and approvals, plans and specifications will be required to be reviewed and approved by Landlord. All alterations shall be made by Tenant in accordance with applicable laws, rules, regulations and orders. Tenant shall obtain all required permits and approvals prior to making any alterations.(C)During the course of making any alterations or improvements approved by Landlord, Tenant shall maintain or cause to be maintained adequate workerâ€™s compensation insurance covering all persons employed in connection with the work and builderâ€™s risk insurance. In addition all contractors entering the Premises shall provide Landlord with adequate liability insurance naming the Landlord as an additional named insured.(D)Tenant shall not permit any mechanicâ€™s lien or other similar lien to be filed against the Project or against Landlordâ€™s interest in the same by reason of any work, labor, services or materials supplied for any alteration or improvement or other work performed by or on behalf of Tenant. If any such lien shall at any time be filed against the Project, Tenant shall, within thirty (30) days after written notice from Landlord (or such shorter period as Landlordâ€™s lender shall require), cause such lien to be discharged of record, by payment, bond, or court order. If Tenant fails to discharge such lien within such period referenced above, then, in addition to (and not in lieu of) any other right or remedy of Landlord, Landlord may, but shall not be obligated to, discharge such lien. In such event, Landlord shall be entitled to be reimbursed by Tenant for anyâ€‹payment of Landlordâ€™s costs and expenses in discharging such lien, (including without limitation, legal fees and disbursements) together with interest thereon at a fluctuating rate per annum equal to the prime rate of interest in effect from time to time as announced by the Wall Street Journal (or any successor thereto) plus three (3%) percent, computed as to each item from the date of payment by Landlord until paid in full (the â€œLease Interest Rateâ€). All such sums shall be deemed to be Additional Rent and due contemporaneously with the payment of the next succeeding installment of Annual Rent. At the request of Landlord from time to time, Tenant shall deliver to Landlord written waivers of lien by the architect, contractor, materialman, laborer and any other person supplying materials or labor in connection with the improvement, addition or alteration whereby such person waives any lien upon or against the Project, and the interest of the Landlord therein.(E)Notwithstanding the provisions hereof, in the event that during the course of and due to any alterations or improvements by Tenant approved by Landlord repairs to the Building become immediately necessary to avoid possible injury or damage to persons or property, Landlord may, but shall not be obligated to, make such repairs at Tenantâ€™s expense. Within ten (10) days after Landlord renders a bill for the cost of said repairs, Tenant shall reimburse Landlord. If the Tenant shall fail to so reimburse Landlord, interest on the amount so billed shall accrue from the date of the billing until payment in full, at the Lease Interest Rate. All amounts payable under this subsection (E) shall be deemed Additional Rent.Section 13.03. Tenantâ€™s Owned Property. All of Tenantâ€™s leasehold improvements, inventory, furniture, chattels, signs, contents, fixtures (including trade fixtures), or personal property of Tenant located on, in, under, above or which serve the Leased Premises installed by Tenant after the Term Commencement Date (â€œTenantâ€™s Personal Propertyâ€) and all non-structural alterations, improvements, replacements and changes made prior to or during the term, paid in full by Tenant, shall be owned by and remain the property of Tenant notwithstanding Landlordâ€™s obligations to insure any part of the same under Section 10.02(A). Tenantâ€™s Personal Property and all such nonÂ structural alterations, improvements, replacements and changes, collectively constitute â€œTenantâ€™s Owned Propertyâ€.Section 13.04. Removal of Tenantâ€™s Owned Property. Tenant may at their option remove all or any of Tenantâ€™s Owned Property at any time during the Term. At the expiration or termination of this Lease, the Tenant shall, at their option, remove all of the Tenantâ€™s Owned Property, but in all events shall be required to remove the hydrogen network and equipment but may leave hydrogen piping/tubing in or on the Building provided such piping/tubing has been purged of hydrogen., and shall restore the Leased Premises to Landlordâ€™s reasonable satisfaction, ordinary wear and tear excepted. If after default in payment of rent or violation of any other provision of this Lease, or upon the expiration of this Lease, the Tenant moves out or is dispossessed and fails to remove any of Tenantâ€™s Owned Property prior to such expiration of this Lease, termination, move out or dispossession, then and in that event, Landlord shall have the option to either (a) deem such Tenantâ€™s Owned Property abandoned by the said Tenant and shall become the property of the Landlord, or (b) Landlord may remove and either store or dispose of said property at the expense of Tenant and hold Tenant responsible for all expenses incurred thereby. Tenantâ€™s obligations as set forth in this paragraph shall survive the end of this Lease.ARTICLE 14â€‹LANDLORDâ€™S ACCESSSection 14.01. Landlordâ€™s Access. (A) Landlord shall, upon at least 24 hours advance oral notice and with an executed Non-Disclosure/Confidentiality Agreement, circumstances permitting, to Tenantâ€™s designated agent with Tenantâ€™s designated agent being present (Tenant hereby agrees to have a designated agent â€œon-callâ€ at all times for the purposes of providing Landlord with prompt access to the Leased Premises), have the right (i) at all reasonable times on days Tenant is open for business, to inspect the Leased Premises and to show the same to prospective mortgagees and purchasers; (ii) during the last year of the term on days Tenant is open for business, to show the same to prospective tenants and; and (iii) at all times to make repairs or replacements as required by this Lease or as may be necessary; provided, however, that Landlord shall use all reasonable efforts to minimize interference with Tenantâ€™s use and occupancy of the Leased Premises.(B)Notwithstanding the foregoing, Landlord shall have the right to enter the Leased Premises at any time by master key or by the use of force without rendering Landlord liable therefore (except to repair damage to the entry caused by forcible entry) in the event of an emergency, provided that Landlord shall have made a good faith and diligent effort to contact a representative of Tenant prior to making such entry.ARTICLE 15COMPLIANCE WITH LAWSSection 15.01. Tenantâ€™s Compliance with Laws. Tenant shall comply with all present and future Laws which are applicable to the Leased Premises and the cleanliness, safety, use and occupation thereof, including without limitation the Americans with Disabilities Action of 1990, as the same may be amended from time to time.ARTICLE 16SURRENDER OF POSSESSIONSection 16.01. Surrender of Possession. At the expiration or earlier termination of the term, Tenant will peaceably yield up the Leased Premises to Landlord in its original condition, ordinary wear and tear excepted.ARTICLE 17SIGNSSection 17.01. Tenantâ€™s Signs. With prior consent of Landlord, the Tenant, at its sole cost and expense, may place its signs on the entrance doors to the Leased Premises and elsewhere within the Building. The design and size of any such signs placed by Tenant shall be subject to the prior approval of Landlord, which shall not be unreasonably withheld or delayed. All other signage shall require Landlordâ€™s prior written consent which shall not be unreasonably withheld or delayed. Tenant shall not be permitted to install or permit installation of any signs, sculptures and/or graphics which adversely reflect on the dignity or character of the Building as a first-class Building. All signs installed by Tenant shall comply with applicable laws and shall be installed in a good workmanlike manner. Landlord shall have the right to remove any signs installed by Tenantâ€‹in violation of this paragraph and to charge Tenant the cost of such removal without liability to Landlord for such removal. Tenant shall obtain all municipal permits and approvals as may be required for Tenantâ€™s signage. Landlord has no objection to Tenant seeking signage on Route 85 outside of Vista Technology Park. Landlord agrees to assist Tenant with its seeking signage on Route 85, on the pylon located at 5 Vista Boulevard and potential new signage on 5 Vista Boulevard.ARTICLE 18SUBORDINATION AND NON-DISTURBANCESection 18.01. Subordination and Non-Disturbance. Upon receipt by the Tenant of a subordination non disturbance agreement by Landlordâ€™s mortgage lender, this Lease shall be subordinate and subject to all mortgages covering the Leased Premises, and to all renewals, consolidations, amendments, modifications or replacements thereof. Tenant agrees to execute any such instrument without cost, which may be deemed necessary or desirable to further effect the subordination of this Lease to any such mortgage or mortgages, and a refusal to execute such instrument shall entitle Landlord, or Landlordâ€™s assigns and legal representatives to the option of canceling this Lease without incurring any expense or damage and the term hereby granted is expressly limited accordingly. The form subordination, non-disturbance agreement set forth on Exhibit E attached to this Lease is acceptable to Tenant. Tenant will attorn to and recognize such successor-landlord as Tenantâ€™s landlord and the successor-landlord will accept such attornment and recognize Tenantâ€™s rights of possession and use of the Leased Premises in accordance with the provisions of this Lease.ARTICLE 19COVENANTSSection 19.01. Environmental Representations, Covenants and Indemnities.(A)Tenant covenants and agrees that:(i)Tenant shall not bring, keep, discharge or release or permit to be brought, kept, discharged or released, in or from the Leased Premises any Hazardous Materials except in the ordinary course of Tenantâ€™s business and in compliance with all applicable federal, state and local laws, regulations or ordinances. As used in this Lease, â€œHazardous Materialsâ€ shall mean any toxic or hazardous substance, material or waste or any other contaminant or pollutant which is or becomes regulated by any federal, state or local law, ordinance, rule or regulation and shall include asbestos and petroleum products and the terms â€œHazardous Substanceâ€ and â€œHazardous Wasteâ€ as defined in the Comprehensive Environmental Response, Compensations and Liability Act, as amended, 42 U.S.C. â€˜9601 et. seq. and the Resource Conservation and Recovery Act (â€œRCRAâ€), as amended, 42 U.S.C. â€˜6901 et. seq. Any Hazardous Materials shall be used, kept, stored and disposed of in accordance with all applicable federal, state and local laws. Tenant shall comply with all federal, state and local reporting and disclosure requirements with respect to Hazardous Materials applicable in its business operations on the Leased Premises. Upon the written request of Landlord, Tenant shall provide periodic written reports of the type and quantitiesâ€‹of any and all Hazardous Materials, waste and contaminants (whether or not believed by Tenant to be Hazardous Materials) used, stored or being disposed of by Tenant in or from the Leased Premises or the Project.(ii)Should any governmental authority or any third party demand that a cleanup plan be prepared or that a clean-up or other remediation action be undertaken because of any deposit, spill, discharge, or other release of Hazardous Substances that occurs during the term of this Lease, at or from the Leased Premises and to the extent the same arises from Tenantâ€™s use or occupancy of the Leased Premises, then Tenant shall, at Tenantâ€™s own expense, prepare and submit any required bonds and other financial assurances; and Tenant shall carry out all such required cleanup plans or other remediation action to Landlordâ€™s reasonable satisfaction.(iii)Tenant shall promptly provide all information regarding the use, generation, storage, transportation, or disposal of Hazardous Materials that is requested by Landlord. If Tenant fails to comply with any of its obligations under this Article 19 within a reasonable time, Landlord may do so; and in such case, Tenant shall cooperate with Landlord in order to prepare all documents Landlord deems necessary or appropriate to comply with such obligations. No such action by Landlord and no attempt made by Landlord to mitigate damages under any applicable law shall constitute a waiver of any of Tenantâ€™s obligations under this Article 19.(B)Anything in this Lease to the contrary notwithstanding, Tenant will indemnify, defend and hold Landlord, Landlordâ€™s lender, the manager of the Leased Premises and their respective constituent members, employees and agents harmless from and against any and all liabilities, claims, damages, penalties, expenditures, loss, demands, defenses, judgements, suits, actions, proceedings, or charges, including but not limited to, all reasonable costs of legal and expert fees and disbursements and of investigations, monitoring, legal representations, remedial response, removal, restoration or permit acquisitions, which may be required, undertaken, offered, paid, awarded or otherwise incurred as a result of any Hazardous Materials existing on, in or under the Leased Premises to the extent arising from the acts or omissions of the Tenant or any of its employees, agents, licensees, invitees or contractors activities on or about the Leased Premises during the Term.(D)The obligations and liabilities under this Article 19 shall survive the expiration or termination of this Lease.Section 19.02. Negative Covenants. (A) If the Tenant brings into the facility materials or a process that increases the insurance costs, Tenant agrees to pay any increase in the insurance premiums.(B)Tenant will not use or permit the Leased Premises or any part thereof to be used for any disorderly, disreputable, unlawful or extra hazardous purposes and will not manufacture any such commodity therein, under penalty of damages and forfeiture, and in the event of a breach hereof, the Term herein shall immediately cease and terminate at the option of the Landlord as if it were the expiration date of the Term. Tenant will not use or permit the Leased Premises to be used for any purposes that, in Landlordâ€™s opinion, impair the reputation or character of theâ€‹Building. Tenant shall refrain from and discontinue such use immediately upon receipt of written notice from Landlord.(C)Tenant will not suffer, permit, or commit any waste or nuisance within the Leased Premises or any part thereof.Section 19.03. Landlord Covenants. (A) Landlord will complete Landlordâ€™s Work in accordance with the Plans and Specifications and at completion, the Project will comply with all applicable federal, state and local statutes, regulations and ordinances. Tenant shall not be responsible for payment of the cost of Landlordâ€™s Work.ARTICLE 20DEFAULTSection 20.01. Default. (A) If Tenant shall default in the payment of Annual Rent or Additional Rent when due, or if, without the consent of the Landlord, the Tenant shall sell, assign, or mortgage this Lease, or if default be made in the performance of any of the other covenants and agreements in this Lease contained on the part of the Tenant to be kept and performed for thirty (30) days after notice, or if the Tenant shall fail to comply with any of the statutes, ordinances, rules, orders, regulations and requirements of the Federal, State and Local Governments or of any and all of their Departments and Bureaus, applicable to said Leased Premises, or if the Tenant shall file a petition in bankruptcy or arrangement, or Tenant be adjudicated a bankrupt or make an assignment for the benefit of creditors or take advantage of any insolvency act or if there shall be filed against Tenant a petition in bankruptcy and such proceeding is not stayed or dismissed within sixty (60) days thereafter. If Tenantâ€™s abandonment or vacation of the Leased Premises shall result in a termination of the Payment in Lieu of Tax Agreement with the County of Albany Industrial Development Agency (â€œAgencyâ€), Tenant shall pay full real estate taxes with respect to the Leased Premises and any other cost or expense or penalty charged by the Agency as a result of the abandonment.The Landlord may (a) cure such default, and any costs and expenses incurred by Landlord therefor, together with interest thereon from date expended until payment in full at the Lease Interest Rate shall be deemed Additional Rent, or (b) if the Landlord so elects, at any time thereafter terminate this Lease and the Term hereof, on giving to the Tenant thirty (30) days notice in writing of the Landlordâ€™s intention so to do, and this Lease and the Term hereof shall expire and come to an end on the date fixed in such notice as if the said date were the date originally fixed in this Lease for the expiration hereof or (c) by summary proceedings or otherwise enter the Leased Premises and repossess the same as the former estate of Landlord and expel Tenant and those claiming under Tenant without prejudice to any other remedies which Landlord may have under this Lease including, without limitation claims for arrears of Annual Rent or Additional Rent then due and owing.(B)In the event of (i) the re-entry of the Landlord under Section 20.01 of this Lease or (ii) the ejectment of the Tenant by summary proceedings or otherwise under Section 20.01 of this Lease or as otherwise provided by Law, it is hereby agreed that the Tenant shall remain liable and shall pay in monthly payments the Rent which accrues subsequent to the re-entry by the Landlord or the ejectment of Tenant, as the case may be. In the event of termination of this Lease byâ€‹Landlord pursuant to Section 21.01 hereof, the Tenant expressly agrees to pay as damages the difference between the Rent that would have been payable under this Lease and the rent collected and received, if any, by the Landlord during the remainder of the Initial Term or the Extension Term, as the case may be, had this Lease not been terminated, such difference or deficiency between the Rent that would have been payable under this Lease and the rent collected if any, shall become due and payable in monthly payments during the remainder of the Initial Term or the Extension Term, as the case may be, had this Lease not been terminated, as the amounts of such difference or deficiency shall from time to time be ascertained. The Landlord may seek monetary damages in any reenter action or summary proceeding or commence a separate action or special proceeding against Tenant and any other responsible party, to recover monetary damages accruing by reason of any such default, together with interest, plus all reasonable attorneysâ€™ fees, disbursements, court costs and other reasonable expenses incurred in connection therewith. Monetary damages shall include, without limitation, Annual Rent and all Additional Rent due at the time proceedings are commenced, rent shortages accruing after such default in connection with any re-letting attempts by Landlord, plus all costs associated with any reletting of the Leased

Premises.(C)If either party incurs any expense, including reasonable attorneysâ€™ fees, in instituting, prosecuting and/or defending any action or proceeding under this Lease, then the nonÂ-prevailing party shall promptly reimburse the prevailing party in any such action or proceeding for such expenses incurred, together with interest accrued thereon the Lease Interest Rate from the date of the final judgment or final determination of such action or proceeding until payment in full.(D)Tenant hereby waives any rights of redemption to which Tenant or any person under Tenant might be entitled by any law now or hereafter in force.ARTICLE 21HOLDOVERSection 21.01. Holdover. The parties recognize that the damage to Landlord resulting from any failure by Tenant to surrender possession of the Leased Premises upon the expiration or earlier termination of this Lease will be substantial, will exceed the amount of the monthly installments of the Annual Rent payable hereunder, and will be impossible to measure accurately. Tenant therefore agrees that if possession of the Premises is not surrendered to Landlord upon the expiration or earlier termination of the Lease, in addition to any other rights or remedies Landlord may have hereunder or at law, Tenant shall pay to Landlord, as liquidated damages, for each month and for each portion of any month during which Tenant holds over in the Leased Premises for up to three (3) months after the expiration or earlier termination of this Lease, a sum equal to one hundred and twenty five percent (125%) of the aggregate of that portion of the Annual Rent and Additional Rent that was payable under this Lease during the last month of the Term. Nothing herein contained shall be deemed to permit Tenant to retain possession of the Leased Premises after the expiration or earlier termination of the Lease. The provisions of this Article 21 shall survive the expiration or earlier termination of this Lease. Tenantâ€™s occupancy subsequent to the expiration or earlier termination of this Lease, whether or not with the consent or acquiescence of Landlord, shall be deemed to be that of a tenancy-at-will and in no event from month-to-month or year-to-year and it shall be subject to all terms, covenants and conditions of this Lease applicable thereto, including, without limitation, those set forth in this Article 21. In the event the Tenant defaults or remains inâ€‹possession of the Leased Premises or any part thereof after the expiration of the tenancy-at-will created hereby then the Tenantâ€™s occupancy shall be deemed a tenancy-at-sufferance and not a tenancy-at-will.ARTICLE 22NOTICESSection 22.01. Notices. Any notice, request or demand under this Lease shall be in writing and shall be considered properly given when addressed as hereinafter provided, and (a) when served personally, (b) three (3) days after the date sent by registered or certified mail (return receipt requested) and deposited in a United States general or branch post office, or (c) one (I) day after the date sent by a recognized private express mail carrier. Any notice, request or demand by Tenant to Landlord shall be addressed to Landlord at:302 Washington Avenue ExtensionAlbany, New York 12203Attn: Mr. Joseph R. NicoliaWith copies to:302 Washington Avenue ExtensionAlbany, New York 12203Attn: Property Managementuntil otherwise directed in writing by Landlord and, if requested in writing by Landlord, simultaneously given to Landlordâ€™s first mortgagee at the address specified in such request. Any notice, request or demand by Landlord to Tenant shall be addressed to Tenant at:Plug Power, Inc.968 Albany Shaker Road Latham, New York 12110Attn: Matthew Savoie, Director of Facilitiesâ€‹With a copy to:â€‹Plug Power, Inc.968 Albany Shaker Road Latham, New York 12110Attn: Office of the General CounselARTICLE 23ASSIGNMENT AND SUBLETTINGSection 23.01. Assignment or Sublease. (A) Except as otherwise provided in this Article 23 to the contrary, Tenant, its successors and assigns shall not assign this Lease, or transfer possession or occupancy thereof (by operation of law or in any other manner) to any person, firm or corporation, without the written consent of Landlord, which consent shall not be unreasonablyâ€‹withheld. It shall be deemed reasonable for the Landlord to withhold its consent to such assignment if the Tenant has not demonstrated to reasonable satisfaction of the Landlord that (1) the financial strength of the proposed assignee or subtenant and any guarantor of the Lease is at least equal to that of the Tenant; and (2) the business reputation of the proposed assignee or subtenant is in accordance with generally acceptable commercial standards and otherwise reasonably satisfactory to Landlord. Landlord may also withhold consent to any request for assignment if Tenant shall be in default of its obligations under this Lease or if Landlordâ€™s lender does not consent to the proposed assignment. Tenant may, without consent of the Landlord, but upon written notice to Landlord assign or sublease this Lease to any entity that comprises substantially all of the same personnel, has the same business purpose and has the same business reputation and financial strength as Tenant, or permit any such entity to occupy all or any part of the Premises provided that Tenant is not in default and Landlord is given not less than fifteen (15) days prior notice of the assignment, sublet or occupancy. Tenantâ€™s option to assign it rights under the Lease to such related successor entity shall not be deemed an offer from Tenant to Landlord subject to Right of Recapture as set forth in Section 23.03. Provided Tenant is not in default it shall have the right to sublet the Premises.(B)Tenant further agrees that any permitted assignment or subletting of the Leased Premises shall be subject to the provisions of this Section 23.01(B). Any subletting or assignment consented to by Landlord shall be evidenced in writing in a form reasonably acceptable to Landlord. Consent by Landlord to any assignment or subletting by Tenant shall not operate as a waiver of the necessity for obtaining Landlordâ€™s consent in writing to any subsequent assignment or subletting; nor shall the collection or acceptance of rent from any such assignee, subtenant or occupant constitute a waiver or release of Tenant of any covenant or obligation contained in this Lease for which Tenant and any guarantor of this Lease shall remain liable and Tenant and guarantor, if any, (the â€œGuarantorâ€) agree that Landlord may enforce its rights directly against Tenant and Guarantor in any proceeding commenced by Landlord against assignee. In the event that Tenant defaults under this Lease in the payment of Annual Rent or Additional Rent or in the performance of any of Tenantâ€™s other covenants or obligations under this Lease, Tenant hereby assigns to Landlord the rent due from any subtenant of Tenant and hereby authorizes and directs each such subtenant to pay said rent directly to Landlord.Section 23.02. Liability of Tenant. If Tenant assigns or sublets hereunder, Tenant shall notify Landlord thereof and Tenant shall remain responsible for the faithful performance and observance of all of the covenants and obligations on Tenantâ€™s part to be performed in this Lease. In the event of any subletting of the Leased Premises or assignment of this Lease by Tenant, with or without Landlordâ€™s consent, Tenant shall remain liable to Landlord for payment of the Rent stipulated herein and all other covenants and conditions contained herein.Section 23.03. Right of Recapture. Notwithstanding anything to the contrary contained in this Article 23, upon receipt of a request by Tenant to either assign this Lease or sublet any portion of the Leased Premises, Landlord shall have the option, to be exercised within thirty (30) days thereafter by written notice to Tenant, to terminate this Lease effective as of the requested date of assignment or with respect to the portion of the Leased Premises requested to be assigned or sublet, effective as of the date of the proposed assignment or sublease and to recapture this space. If Landlord chooses to terminate the Lease, Tenant may withdraw Tenantâ€™s office notice to assign or sublet within fifteen (15) days of receiving Landlordâ€™s written notice. Withdrawal of Tenantâ€™sâ€‹offer notice to assign or sublet will result in a return to the original status of the Lease whereby Tenant will be entitled to remain in the Leased Premises for the remainder of the term. In the event the Landlord shall exercise the right of recapture option, this Lease, in the case of an assignment, shall terminate on or as of the date specified above as if that date had been fixed as the expiration date of the Term of this Lease, and the Tenant shall surrender possession of the entire Leased Premises on such termination date, in accordance with the provisions of this Lease. In the event of subletting, Landlord and Tenant shall enter into a modification to this Lease, removing the portion of the Leased Premises requested to be sublet from the definition of the Leased Premises, and otherwise making required changes to Tenantâ€™s obligations hereunder to reflect the reduction in the size of the Leased Premises.Section 23.04. Waiver of Claim. Any permitted sublease of all or any part of the Leased Premises must contain a waiver of claims against Landlord by the subtenant and require the subtenantâ€™s insurer to issue waiver of subrogation rights endorsements to all policies of insurance carried in connection with the Leased Premises or the contents thereof. All waivers shall be in form and substance acceptable to Landlord.ARTICLE 24LIMITATION OF PARTIESâ€™ LIABILITYSection 24.01. Limitation of Landlordâ€™s Liability. Notwithstanding anything to the contrary provided in this Lease, Tenant agrees that it shall look solely to the estate and property of the Landlord in the Leased Premises, and subject to the prior rights of any mortgagee and underlying landlord in the Leased Premises (and not to the members of the Landlord) for the collection of any judgment (or other judicial process) requiring the payment of money by Landlord in the event of any default or breach by Landlord with respect to any of the terms, covenants and conditions of this Lease to be observed and/or performed by Landlord and no other assets of Landlord or its members shall be subject to levy, execution or other procedures for the satisfaction of Tenantâ€™s remedies.ARTICLE 25LANDLORD ASSIGNMENTSection 25.01. Landlord Assignment. Subject to Tenantâ€™s right of first offer and purchase option set forth in Article 7, Landlord shall have the right to assign its interest in this Lease without recourse upon written notice to Tenant. The word â€œLandlordâ€ as used herein, means only the owner for the time being of Landlordâ€™s interest in this Lease, and, in the event of any transfer of Landlordâ€™s interest in this Lease the transferor shall cease to be liable, and shall be released from all liability for the performance or observance of any agreements or conditions on the part of Landlord to be performed or observed provided that from and after said transfer, the transferee shall assume and be liable for the performance and observance of said agreements and conditions. In addition, the words â€œLandlordâ€ and â€œTenantâ€ as used in this Lease shall mean every person or party named as Landlord and/or Tenant in this Lease. Any notice given as provided in the Lease shall bind all such parties and it shall have the same force as if given to all of them. The parties recognize and agree that Landlord shall assign the lease to its lender without being subject to Article 7 of this Lease and agree that Lender shall not be bound to Article 7 of this Lease in the event of a foreclosure or transfer by deed in foreclosure to a subsequent purchaser.â€‹ARTICLE 26QUIET ENJOYMENTSection 26.01. Quiet Enjoyment. Provided Tenant performs the covenants and obligations in this Lease on Tenantâ€™s part to be performed in accordance with the terms of this Lease, subject to Article 18 hereof Landlord covenants and agrees to take all necessary steps to secure and to maintain for the benefit of Tenant the quiet and peaceful possession of the Leased Premises and parking area for the Term of this Lease, without hindrance, claim or molestation by Landlord or any other person.ARTICLE 27WAIVERSection 27.01. Waiver. The failure of the either party to insist upon a strict performance of any of the terms, conditions and covenants to be performed or observed by the other party herein shall not be deemed a waiver of any rights or remedies that either party may have and shall not be deemed a waiver of any subsequent breach or default in the terms, conditions and covenants to be performed or observed by either party herein. The receipt by Landlord of Annual Rent, Additional Rent or other sums due hereunder with knowledge of the breach of any covenant of this Lease shall not be deemed a waiver of such breach. No acceptance by Landlord of a lesser amount than the amount then due hereunder, nor any endorsement or statement on any check or any letter accompanying any check or payment as Annual Rent or Additional Rent shall be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlordâ€™s right to recover the balance of such sums due hereunder or pursue any other remedy provided in this Lease.ARTICLE 28RESERVEDARTICLE 29ESTOPPEL CERTIFICATETenant agrees, at any time and from time to time, upon not less than ten (10) daysâ€™ prior notice from Landlord, to execute, acknowledge and deliver to Landlord or a Person designated by Landlord, a statement in writing in the form attached and marked Exhibit F: (a) certifying that this Lease is unmodified and in full force and effect (or if there have been modifications, that this Lease is in full force and effect as modified and stating the modifications); (b) whether or not the Term has commenced and if it has commenced, stating the dates to which the Annual Rent and Additional Rent have been paid by Tenant; and (c) stating, to the best of Tenantâ€™s knowledge, whether or not Landlord or Tenant is in default in the performance of any covenant, agreement or condition contained in this Lease, and if Tenant has knowledge of such a default, specifying each such default and such other information as may be reasonably requested.â€‹ARTICLE 30BROKERThe parties mutually represent and warrant to each other that neither party has dealt with any broker in connection with this transaction except Daniel Oâ€™Brien, NAI Platform (â€œBrokerâ€) and that neither party knows of any other broker who has claimed or may have a right to claim a commission in connection with this transaction. The parties agree Broker shall be due a commission with respect to this Lease but not with respect to the exercise by Tenant to purchase the Option Property or to exercise any option to purchase the Leased Premises. Landlord shall pay Broker pursuant to the terms of a separate agreement. Tenant shall defend, indemnify and save harmless Landlord from and against any claim which may be asserted against Landlord by any broker if the claim (a) is made in connection with this transaction and (b) Tenant employed or made use of or was responsible for the claiming broker. Tenant shall reimburse Landlord for reasonable expenses, losses, costs and damages (including reasonable attorneysâ€™ fees and court costs if Tenant fails or refuses to defend as herein required) incurred by Landlord in connection with such claims. Landlord shall defend, indemnity and save harmless Tenant from and against any claim which may be asserted against Tenant by any broker if the claim (a) is made in connection with this transaction, and (b) arises out of conversations or dealings between Landlord and any claiming broker or (c) results from a fraud committed or misrepresentation made by Landlord or any broker employed by Landlord. Landlord shall reimburse Tenant for reasonable expenses, losses, costs and damages (including reasonable attorneyâ€™s fees and court costs if Landlord fail or refused to defend as herein required) incurred by Tenant in connection with such claims. This Article shall survive the expiration or earlier termination of this Lease.ARTICLE 31EXCUSABLE DELAYWhenever a party hereto is required by the provisions of this Lease to perform an obligation, except for the payment of Annual Rent or Additional Rent and the provision of insurance, and such party is prevented beyond its reasonable control from doing so by reason of an Excusable Delay, as defined in this Article 31, such party shall be temporarily relieved of its obligation to perform, provided it promptly notifies the other party of the specific delay and exercises due diligence to remove or overcome it. The words â€œExcusable Delayâ€ shall mean any delay due to strikes, lockouts or other labor or industrial disturbance; civil disturbance; future order of any government, court or regulatory body claiming jurisdiction; act of the public enemy; war, riot, sabotage, blockage or embargo; or order of any government or regulatory body; lightning, earthquake, fire, storm, hurricane, tornado, flood, washout or explosion, or act or omission of one party hereto which prevents the party claiming delay from complying, or which materially and adversely interferes with the claiming partyâ€™s ability to comply with an obligation under this Lease on its part to be performed. Any time limits required to be met by either party hereunder, whether specifically made subject to Excusable Delay or not, except those related to the payment of Annual Rent or Additional Rent and the provision of insurance, shall, unless specifically stated to the contrary elsewhere in this Lease, be automatically extended by the number of days by which any performance called for is delayed due to Excusable Delay.â€‹ARTICLE 32MEMORANDUM OF LEASEThis Lease shall not be recorded by either Landlord or Tenant. However, either party may request that a memorandum of this Lease be recorded in a form reasonably acceptable to both parties. The requesting party shall pay all costs of preparing and recording such memorandum of this Lease. If a memorandum of this Lease is to be recorded, before Landlord will execute same, Tenant must first place in escrow with an attorney designated by Landlord a document in a form reasonably acceptable to both parties terminating of record the memorandum to be recorded, which termination may be released from escrow on the expiration or earlier termination of this Lease.ARTICLE 33BINDING AGREEMENTThis Lease shall bind and inure to the benefit of Landlord and Tenant and their respective successors and, subject to the provisions hereof, permitted assigns.ARTICLE 34ENTIRE AGREEMENTThis Lease, including all Exhibits and other attachments referred to herein, contains the entire agreement of Landlord and Tenant with respect to the matters stated herein, and may not be modified except by an instrument in writing which is signed by both parties and delivered by each to the other. Exhibits and such other attachments are incorporated herein as fully as if their contents were set out in full at each point of reference to them.ARTICLE 35MISCELLANEOUSSection 35.01. Partial Invalidity. If any covenant, condition or provision of this Lease, or the application thereof to any person or entity or circumstance, shall be held to be invalid or unenforceable, then in each such event the remainder of this Lease or the application of such covenant condition or provision to any other person or entity or any other circumstance (other than those as to which it shall be invalid or unenforceable) shall not be thereby affected, and each covenant, condition and provision hereof shall remain valid and enforceable to the fullest extent permitted by applicable Laws.Section 35.02. Governing Law. This Lease shall be governed by, and construed and enforced in accordance with, the laws of the State of New York (excluding conflict of laws provisions).Section 35.03. Grammatical Usage. In construing this Lease, feminine or neuter pronouns shall be substituted for those masculine in form, and vice versa, and plural terms shall be substituted for singular and singular for plural, in any place in which the context so requires.â€‹Section 35.04. Terms Inclusive. Subject to the provisions of Article 25 hereof the term â€œLandlordâ€ and â€œTenantâ€ shall include the parties named in this Lease, their legal successors in interest, and all permitted subtenants or assigns.Section 35.05. Captions. Captions are inserted in the Lease only as a matter of convenience and for reference and in no way define, limit or describe the scope of intent of this Lease or in any way affect this Lease.Section 35.06. Further Action. The parties shall execute and deliver all documents, provide all information and take or forbear from all such action as may be necessary or appropriate to achieve the purpose of this Lease.Section 35.07. Acceptance of Sums due hereunder. Landlord is entitled to accept, receive and cash or deposit any payment made by Tenant on account of this Lease in any amount whatsoever and apply the same at Landlordâ€™s option to any obligation of Tenant under this Lease and the same shall not constitute payment of any amount owed except that to which Landlord has applied the same.Section 35.08. Trial by Jury. IT IS MUTUALLY AGREED BETWEEN THE LANDLORD AND TENANT THAT EACH OF THEM AND HEREBY DOES WAIVE TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER OF THE PARTIES AGAINST THE OTHER ON ANY MATTERS WHATSOEVER ARISING OUT OF, OR IN ANY WAY CONNECTED WITH, THIS LEASE, THE TENANTâ€™S USE OR OCCUPANCY OF THE LEASED PREMISES, AND ANY CLAIM OF INJURY OR DAMAGE RELATED TO ANY OF THE SAME.Section 35.09. Amendment or Termination. Except as otherwise provided herein, this Lease may be modified or amended only with the prior written approval of both parties, and it may not be discharged or terminated except in writing.Section 35.10. Authorizations and Representations. Each party hereby severally represents that it has been duly authorized to execute, deliver and perform this Lease through its members, officers or agents signing on its behalf.Section 35.11. Rules of Interpretation. This Lease shall be construed neither against Landlord nor Tenant; each provision hereof shall be deemed both a covenant and a condition running with the Land; except as otherwise expressly provided in this Lease and its Exhibits and other attachments, the singular includes the plural and the plural includes the singular; â€œorâ€ is not exclusive; a reference to an agreement or other contract includes supplements and amendments thereto to the extent permitted by this Lease; a reference to laws includes any amendment or supplement to such laws; a reference to a person or entity includes its permitted successors and assigns; accounting provisions have the meanings assigned to them by generally accepted accounting principles applied on a consistent basis; the words â€œsuch as,â€ â€œinclude,â€ â€œincludesâ€ and â€œincludingâ€ are not limiting; except as specifically agreed upon in this Lease, any right may be exercised at any time and from time to time and all obligations are continuing obligations throughout the Term of this Lease and in calculating any time period, the first day shall be excluded and the last day shall be included and all days are calendar days unless otherwise specified. If anyâ€‹deadline shall fall on a Saturday, Sunday or legal holiday, the deadline shall be extended to the next business day.Section 35.12. No Exclusive Remedies. No remedy or election given by any provision in this Lease shall be deemed exclusive unless so indicated, but each shall, wherever possible, be cumulative in addition to all other remedies at law or in equity which either party may have arising out of a default of the other party in the observance or performance of its covenants or obligations under this Lease.Section 35.13. Exclusive Agreement. This Lease Agreement constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior agreements and understandings pertaining hereto. No covenant, representation or condition not expressed in this Lease shall affect, or be deemed to interpret, change or restrict the express provisions hereof.Section 35.14. Counterparts. When several counterparts of this Lease have been executed, all counterparts shall constitute one and the same instrument.Section 35.15. Survival of Obligations. The obligations of Tenant hereunder not fully performed as of the expiration or earlier termination of the Term shall survive the expiration or earlier termination of the Term.ARTICLE 36EXAMINATION OF LEASEThe submission of this Lease for examination, negotiation and signature does not constitute an offer to lease, or a reservation of, or an option for the Leased Premises. This Lease shall not be binding and in effect until at least one counterpart, duly executed by both parties, has been delivered to both Landlord and Tenant.ARTICLE 37ADDITIONAL TERMSTENANT AND LANDLORD OBLIGATIONS1.Provided the Tenant signs the lease there will be no obligations financial or otherwise from the pre-construction development agreement except with respect to the payment for the loading dock equipment in the amount of $450,000 which Tenant is required to pay under the terms of that agreement;2.Landlord agrees to provide a detailed construction schedule for the entire facility that shall be agreed upon by both parties;â€‹IN WITNESS WHEREOF, this Lease has been duly executed by the duly authorized representatives of Landlord and Tenant as of the date first above written.â€‹â€‹LANDLORDâ€‹â€‹â€‹VISTA REAL ESTATE DEVELOPMENT LLCâ€‹â€‹â€‹By:â€‹â€‹Name:â€‹â€‹Title:â€‹â€‹â€‹â€‹TENANTâ€‹â€‹â€‹PLUG POWER, INC.â€‹â€‹â€‹By:â€‹â€‹Name:â€‹â€‹Title:â€‹â€‹â€‹EXHIBIT ASITE PLANâ€‹EXHIBIT BFEE OWNER RECOGNITION AGREEMENTFEE OWNER RECOGNITION AGREEMENTFEE OWNER RECOGNITION AGREEMENT (the â€˜â€˜Agreementâ€) made and entered into this 15th day of December, 2021, by and among Campus Associates XI LLC, a New York limited liability company with an address at 302 Washington Avenue Extension, Albany, New York 12203 (the â€œOwnerâ€™â€™); Vista Real Estate Development LLC, a New York limited liability company with an address at 302 Washington Avenue Extension, Albany, New York 12203 (the â€œGround Tenantâ€™â€™); and Plug Power, Inc. a New York corporation with an address at ______________________ (the â€œTenantâ€™â€™).WITNESSETH:WHEREAS:A.By lease dated December 13, 2021 (the â€œGround Leaseâ€™â€™), Owner leased to Ground Tenant a tract of land (the â€œGround Lease Tractâ€™â€™) consisting of approximately 24.54 acres located at Vista Boulevard, Town of Bethlehem and Town of New Scotland, Albany County, New York.B.Ground Tenant has sublet the Ground Lease Tract and an approximate 350,000 +/- sq ft facility to be constructed therein to Tenant (the â€œPremisesâ€™â€™) for an initial term of fifteen (15) years, with six extension terms of five (5) years each, under a Lease Agreement (the â€œLeaseâ€™â€™) dated December _15, 2021. Owner acknowledges receipt of a copy of the Lease. The Premises are more particularly described in the Lease.C.The parties wish to provide for the continuation of the Lease for its full term notwithstanding any termination of the Ground Lease, upon and subject to the terms and conditions stated in this Agreement.NOW, THEREFORE, in consideration of one dollar and other good and valuable considerations by each party in hand paid to the others, the receipt and sufficiency of which are acknowledged, and in consideration of their mutual promises, Owner, Ground Tenant and Tenant agree as follows:1.Condition Precedent. The rights and obligations of the parties under this Agreement are expressly conditioned upon Ground Tenant having substantially completed construction and having delivered possession of the Premises to Tenant, and Tenant having accepted possession of the Premises, all as provided in the Lease.2.Attornment. Tenant agrees, from and after an Attornment Event, as defined in subparagraph (a) below, to attorn to the Owner, and Owner agrees to accept such attornment, under all of the terms, conditions, and covenants of the Lease, but subject to the limitations andprovisions stated in the following subparagraphs:â€‹(a)The term, â€œAttornment Eventâ€, as used in this Agreement, is defined as the first to occur, during the term of the Lease (including any extension or renewal), of any of the following events:(i)the Ground Lease is terminated for any reason (including without limitation a termination due to the default of Ground Tenant), unless the Lease, by its express terms, terminates at the same time due to the occurrence of a condemnation or casualty loss;(ii)the Owner, pursuant to the provisions of the Ground Lease, terminates the right of Ground Tenant to possession under the Ground Lease due to a default of Ground Tenant under the Ground Lease; or(iii)the term of the Ground Lease expires prior to the expiration of the term of the Lease (including any extension of the Lease pursuant to its terms).(b)From and after the occurrence of an Attornment Event, the respective rights and obligations of the Tenant and the Owner will be as provided in the Lease, which is incorporated in this Agreement by reference, and the Lease shall continue in full force and effect as a direct lease between the Owner and the Tenant, with the same force and effect as if the Owner, as landlord, and the Tenant, as tenant, had entered into a lease at the time of occurrence of the Attornment Event, upon the identical terms and conditions as contained in the Lease, for a term equal to the then unexpired term of the Lease, and including all rights to extend the term of the Lease for any extension periods provided for in the Lease subsequent to the then current term of the Lease, except that: (i)The Owner will not be liable for nonpayment or nonperformance by the Ground Tenant of Lease obligations arising prior to the Attornment Event, or for damages resulting from Ground Tenantâ€™s act or omission which occurred or arose prior to the Attornment Event (whether or not the same shall be continuing defaults after the Attornment Event), except that, as Tenantâ€™s sole remedies against Owner for such defaults of Landlord prior to the Attornment Event:(A)Tenant will be entitled to utilize any rent reduction, offset, credit or holdback rights available to Tenant under the Lease to recover the direct cost of curing any such default of Ground Tenant;(B)Notwithstanding anything to the contrary in the Lease, Tenant will be entitled to remedy any nonmonetary default or nonperformance by Ground Tenant (such as, for example, a failure to repair) that occurred prior to, and continues unremedied after, the occurrence of the Attornment Event and offset the reasonable direct costs of curing the same against all rent and other amounts coming due under the Lease until Tenant has recovered the full amount of such costs; or(ii)reserved.(iii)The Owner will not be liable for any security deposit paid by Tenant to Ground Tenant, except to the extent such security deposit has been actually received by orâ€‹credited to the account of the Owner.(iv)The Tenant will be under no obligation to pay any rent or render any performance to the Owner until it has received notice (in the manner provided in Paragraph 6 of this Agreement) of the occurrence of the Attornment Event from the Owner.(c)The Owner will be liable for all obligations of the Ground Tenant under the Lease from and after occurrence of the Attornment Event, subject to the exceptions stated in subparagraph (b), above.3.Recognition and Non-Disturbance. The Owner agrees that so long as the Tenant is not in default under the Lease beyond any applicable cure period:(a)If an Attornment Event occurs, the Tenantâ€™s possession of the Premises and its rights and privileges under the Lease will continue in full force and effect and will not be diminished or interfered with and Tenantâ€™s occupancy of the Premises will not be disturbed; and(b)Tenant will not be named as a party to any eviction proceedings or proceedings to establish Ground Tenantâ€™s default under the Ground Lease or recover possession of the Ground Lease Tract, unless Tenantâ€™s joinder is required by law.4.Ownerâ€™s Right to Cure Landlord Defaults. Tenant will give Owner duplicate notice of any claimed default on the part of Ground Tenant, in the manner provided in Paragraph 6 of this Agreement, at the address set forth in this Agreement, and will permit Owner to cure any default by Landlord under the Lease during any period when the Ground Tenant would be entitled to do so, and for (i) 10 days after such period with respect to any default which can be cured by the payment of money, and (ii) with respect to any other default, for thirty (30) days after such period, and for such reasonable additional time, not to exceed 30 days, as may be required to effect a cure, if Owner, acting diligently, cannot effect the cure within the first 30 day period, but promptly commences to cure the default and notifies Tenant in writing that it has commenced such cure within such period, and proceed diligently to affect such cure.5.No Modification of Ground Lease. Nothing in this Agreement modifies or alters the respective rights and obligations of Owner and Ground Tenant as between themselves under the Ground Lease, or waives any rights of either of them against the other under the Ground Lease.6.Notices. All notices required or permitted by the terms of this Agreement shall be deemed given only when deposited in the United States Registered or Certified Mail, Postage Prepaid, or, with verification of delivery, when received by telegram, cable, telex, commercial courier or any other generally accepted means of business communication, to a party at the address set forth below for each party. A party may change the address to which notices must be sent by giving notice to the other parties in accordance with this Paragraph. The initial notice address for each party is as follows:â€‹If to Owner:CampusÂ AssociatesÂ XIÂ LLC302Â WashingtonÂ AvenueÂ ExtensionAlbany, New York 12203â€‹â€‹If to Ground Tenant:Vista Real Estate Development LLC302 Washington Avenue ExtensionAlbany, New York 12203â€‹â€‹If to Tenant:Plug Power, Inc.968 Albany Shaker RoadLatham, New York 12110Attn: Matthew Savoie, Director of Facilitiesâ€‹â€‹â€‹With a copy to:â€‹â€‹â€‹Plug Power, Inc.968 Albany Shaker RoadLatham, New York 12110Attn: Office of the General Counselâ€‹7.Joinder of Pee Mortgagee. If Owner grants to any mortgagee a lien on the Ground Lease Tract, Owner will secure the joinder of such mortgagee in this Agreement.8.Interpretation and Effect. This Agreement:(a)shall remain in effect at all times during the Lease or any extension or renewal of the Lease, notwithstanding any default under or termination of the Ground Lease.(b)is to be governed, enforced, and construed in accordance with the internal laws of the State of New York applicable to contracts made and to be performed in New York;(c)binds and inures to the benefit of the parties and their respective successors and assigns, and the covenants contained in this Agreement shall be covenants running with the land and bind the respective successors in title to the Ground Lease Tract, the leasehold estate in the Ground Lease Tract created by the Ground Lease, and the leasehold estate in the Premises created by the Lease; and(d)may not be modified except by a writing executed by the parties.[Remainder of page intentionally left blank - Signature Page follows]â€‹IN WITNESS WHEREOF, the parties have caused this agreement to be executed as a needed instrument by their duly authorized officers, all as of the date first stated above.â€‹â€‹OWNER:â€‹â€‹â€‹Campus Associates XI LLCâ€‹â€‹â€‹By:â€‹â€‹Name:â€‹â€‹Title:â€‹â€‹â€‹â€‹â€‹GROUND TENANT:â€‹â€‹â€‹â€‹Vista Real Estate Development LLCâ€‹â€‹â€‹By:â€‹â€‹Name:â€‹â€‹Title:â€‹â€‹â€‹â€‹â€‹TENANT:â€‹â€‹â€‹â€‹Plug Power, Inc.â€‹â€‹â€‹By:â€‹â€‹Name:â€‹â€‹Title:â€‹â€‹â€‹EXHIBIT CAGREEMENT OF LEASE COMMENCEMENTTHIS AGREEMENT, made as of this _____________day of ____________________, 20___, between _________________________, a limited liability company, having an office at 302 Washington Avenue Extension, Albany, New York 12203 (hereinafter called â€œLandlordâ€), and _____________ (hereinafter called â€œTenantâ€).WITNESSETH:WHEREAS, by a certain lease (hereinafter called the â€œLeaseâ€) dated the â€‹ â€‹ day of â€‹ â€‹â€‹ â€‹, 20___, Landlord leased to Tenant a portion of the real property described in Exhibit â€œAâ€ annexed hereto and made a part hereof (hereinafter called the â€œLeased Premisesâ€); andWHEREAS, Tenant is now in possession of the Leased Premises under the Lease; and WHEREAS, under the terms of the Lease, Landlord and Tenant agreed to execute, acknowledge and deliver to each other an agreement setting forth the Term Commencement Date (as defined in the Lease), the date of expiration of the initial term of the Lease [and the commencement date of the Extension Term (as defined in the Lease)].NOW, THEREFORE, Landlord and Tenant agree as follows:I.The Term Commencement Date is ________________________, 20___.2.The date of the expiration of the initial term of the Lease shall be _______________________, 20___.3.[The commencement date of the Extension Term shall be the first day of ____________________, 20___.]4.This Agreement shall bind and inure to the benefit of and be enforceable by the parties hereto and their respective heirs, personal representatives, successors and assigns.5.This Agreement and the Lease together contain the entire agreement between the parties and cannot be changed, modified, waived or canceled except by an agreement in writing executed by the party against whom enforcement of such modification, change, waiver or cancellation is sought.â€‹IN WITNESS WHEREOF, Landlord and Tenant have caused this Agreement to be executed the day and year first above written.â€‹LANDLORDâ€‹â€‹â€‹VISTA REAL ESTATE DEVELOPMENT LLCâ€‹â€‹â€‹By:/s/ Joseph Nicollaâ€‹Name:Joseph Nicollaâ€‹Title:Memberâ€‹â€‹â€‹â€‹TENANTâ€‹â€‹â€‹â€‹PLUG POWER, INC.â€‹â€‹â€‹By:/s/ David Mindnichâ€‹Name:David Mindnichâ€‹Title:EVP Global Manufacturingâ€‹â€‹EXHIBIT DPLANS AND SPECIFICATIONS FORLANDLORDâ€™S WORKâ€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹EXHIBIT D - LANDLORDS WORKBuilding Standards & Scope of WorkPhase IThe Manufacturing BuildingPlug PowerVista ParkBethlehem, New YorkNovember 29, 2021The following represents the anticipated building standards and scope of work to construct a new 200,000 SF, one-story open warehouse/ manufacturing facility in the Vista Park located in Bethlehem, New York. All work will be performed in a professional, warrantable and workman like manor and in full compliance with OSHA requirements and NYS labor laws for a private construction projectDivision 010000 - General Conditions:â—Architectural & structural designâ—Site/civil engineeringâ—MEP Designâ—Wetland delineationâ—Geotechnical engineeringâ—Project managementâ—Full-time field supervisionâ—Design development (pre-construction support)â—Safetyâ—Temporary field officeâ—Postal & printing costsâ—Survey & layoutâ—Temporary facilitiesâ—Weekly cleaningâ—Final cleaningâ—Dumpster(s)â—General liability insuranceâ—Builders risk insuranceâ—Building permitâ€‹Division 030000 - Concrete & Reinforcement:â—Cast-in-place concrete footings, foundations walls, & isolated piersâ—6â€ slab on grade with WWF 6 x 6 W2.9 x W2.9, 4,000 psi throughoutâ—Concrete steel reinforcing at footings & foundationsâ—Rigid foundation insulation per codeâ—Concrete pads at building entrances, dumpster, transformer, etc.â—Concrete walks to building main entrancesâ€‹â€‹EXHIBIT D - LANDLORDS WORKDivision 050000 - Structural Steel & Metals:â—Structural steel metal frame, columns, bracing, purlins, girts, bar joists, metal deck & erectionâ—Column spacing 50â€™Â± x 50â€™â—30â€™ clear ceiling heightâ—Exposed structure to be prime paintedâ—Metal canopy systems at exit doorsâ—Pipe bollards at grade sectional doorsâ—Miscellaneous steel framing at sectional dock & sectional grade doorsâ€‹Division 060000 - Wood & Plastics:â—Miscellaneous wood blocking at mechanical roomsâ—Wood blocking at roofâ€‹Division 070000-Thermal & Moisture Protection:â—Metal wall panels and wall insulationâ—Membrane roofing & R-30 rigid roof insulation over metal deck with associated copings, flashings & accessories for a complete warrantable system, internally drained roof systemâ—Canopy roofing at exit doorsâ—Joint sealants & caulkingâ€‹Division 080000- Doors, Specialty Doors & Windows:â—Exterior hollow metal doors, hollow metal frames & commercial hardwareâ—Rated interior MEP room hollow metal doors, hollow metal frames & commercial hardwareâ—Aluminum & glass entry doors & storefrontâ—Aluminum & glass windowsâ—Twenty (20) 9â€™ x 10â€™ sectional dock doors, manual operationâ—One (1) 12â€™ x 14â€™ sectional grade door, manual operationâ€‹Division 090000 - Finishes:â—Painting hollow metal doors & framesâ—Paint miscellaneous steelâ€‹Division 100000 - Specialties:â—Fire extinguishers as required by codeâ—Code compliance signageâ€‹Division 110000- Loading Dock Equipment:â—Twenty (20) edge of dock levelersâ—Twenty (20) dock sealsâ€‹Division 210000 - Fire Protection:â—Wet type ESFR sprinkler system, 1,000 gpmâ€‹â€‹EXHIBIT D - LANDLORDS WORKDivision 220000 - Plumbing:â—Domestic water service with meter & backflow preventionâ—Below grade sanitary piping for breakroom & bathroomsâ—Domestic hot & cold water distributionâ—Floor drains in bathroomsâ—Roof drains & below grade pipingâ—Sanitary risers & ventsâ—Valves, stops & trimsâ—Natural gas piping to heating equipmentâ—Plumbing fixturesoTen (10) waterclosetsoTen (10) showersoSinksoElectric water heaterâ€‹Division 230000- HVAC:â—Gas fired Cambridge air rotation units, heat onlyâ—Electric unit heaters for mechanical roomsâ—High efficiency gas furnaces/ split systems at break room & bathroomsâ—Break room & bathroom exhaustâ—Roof mounted packaged DX cooling units - fourteen (14) 20 ton unitsâ€‹Division 260000 - Electrical:â—Temporary power & lighting during constructionâ—New 2,000 amp, 277/480v, 3 phase electrical service, main switchgear, step down transformers & panelingâ—Power distribution & outletsâ—Lighting & switchingoLight fixtures to be LED with occupancy sensors throughoutâ—Power & electrical connections to heating & ventilation equipmentâ—Exterior building lightingâ—Site lightingâ€‹Division 283123 - Fire Alarm System:â—Addressable fire alarm system per codeDivision 300000 - Sitework:â—Clearing & grubbingâ—SWPPP/erosion controls & SWPPP inspectionsâ—Strip & stock pile topsoilâ—Cut/fill existing site to meet new grade requirementsâ—Spread topsoil from stockpileâ—Excavation & backfill of foundations & underground plumbingâ—Stabilization fabric for asphalt pavement & site concreteâ—Sub base for building slab on grade, asphalt pavement & site concreteâ€‹â€‹â—Asphalt paving with associated pavement marking & traffic signage as specifiedâ—Heavy duty asphalt paving at truck areas as specifiedâ—Storm sewer system including excavation, backfill, piping, infiltration & drainage structuresâ—Gravity sanitary sewer system including excavation, backfill, piping & cleanout assemblyâ—New water service including excavation, backfill & pipingâ—Fire hydrants as requiredâ—Excavation & backfill for gas service trench (gas piping and meter by gas provider)â—New electrical service including excavation, backfill & conduitâ—Transformer & generator padsâ—Site lighting including excavation, backfill, concrete bases, wiring & fixturesâ—Concrete curbingâ—Concrete sidewalks at building entranceâ—Concrete dumpster pad & dumpster enclosureâ—Rake, fertilize, seed & mulch lawn areasâ—Landscaping/plantingsâ—Commercial grade security fencing & gates at select locationsâ—Commercial grade chain link at SWPPP basinsâ—With the delivery of Phase I, 300 parking spaces will be providedâ—At the culmination of Phase I, II & Ill, the project will provide for a total of 600 parking spaces, 25 tractor trailer parking spaces & a one acre laydown area.â€‹Division 400000 - Allowances:â—Tenant fit-up allowance: $ 600,000.Fit-up allowance may extend beyond Phase I initial occupancyExclusions:â—Payment & performance bondsâ—Affirmative action goals for M/WBE & veteran participationâ—Monument & building signageâ—Generatorâ—Security, surveillance & access controlâ—Tel/data equipment & cablingâ—Transporting, unloading, hoisting, distribution, installation & final connections of new & existing owner supplied equipmentâ—FF&Eâ—In rack fire suppressionâ—Office fit-upâ—Floor/ trench drains at warehouse/ manufacturingâ—Compressed air, hydrogen, & other specialty pipingâ—Air compressorâ—Hydrogen tank/ padâ—BMS systemâ—Lighting controlsâ€‹â€‹EXHIBIT D - LANDLORDS WORKâ—Electrical distributionâ—Solar panelsâ—Mezzanines / preparations for future mezzaninesâ—Block heater(s)â—Fuel tank(s)â—Facility garage (service/ maintenance garage)â—Security building / guard shackâ—Traffic control / barriersâ—Safety showers / eye wash stationsâ—Canopy at Laydown areaâ—Pedestrian Bridgeâ—Test & Verification Room & systemsâ—Concrete dock / landing padsâ€‹â€‹EXHIBIT D - LANDLORDS WORKBuilding Standards & Scope of WorkPhase IIThe Office BuildingPlug PowerVista ParkBethlehem, New YorkNovember 29, 2021The following represents the anticipated building standards and scope of work to construct a new 50,000 SF, two-story open office facility in the Vista Park located in Bethlehem, New York. All work will be performed in a professional, warrantable and workman like manor and in full compliance with OSHA requirements and NYS labor laws for a private construction projectDivision 010000 - General Conditions:â—Architectural & structural designâ—Site/civil engineeringâ—MEP Designâ—Wetland delineationâ—Geotechnical engineeringâ—Project managementâ—Full-time field supervisionâ—Design development (pre-construction support)â—Safetyâ—Temporary field officeâ—Postal & printing costsâ—Survey & layoutâ—Temporary facilitiesâ—Weekly cleaningâ—Final cleaningâ—Dumpster(s)â—General liability insuranceâ—Builders risk insuranceâ—Building permitâ€‹Division 030000 - Concrete & Reinforcement:â—Cast-in-place concrete footings, foundations walls, & isolated piersâ—:4â€ slab on grade with WWF 6 x 6 W2.9 x W2.9, 4,000 psi throughoutâ—3-Â½â€ concrete slab on deck at second floorâ—Concrete pan fill stairsâ—Cat-in-place concrete elevator pit/ foundationâ—Concrete steel reinforcing at footings & foundationsâ—Rigid foundation insulation per codeâ€‹â—Concrete pads at building entrances, dumpster, transformer, etc.â—Concrete walks to building main entrancesâ€‹Division 050000 - Structural Steel & Metals:â—Structural steel metal frame, columns, bracing, purlins, girts, bar joists, metal deck & erectionâ—Column spacing 30â€™ x 30â€™ (approximate, reference plans)â—14â€™Â± floor to floor height (approximate, reference plans)â—Metal canopy systems at main entrance & exit doorsâ—Steel pan stairs & associated railingsâ—Ships ladder at roofâ€‹Division 060000 - Wood & Plastics:â—Miscellaneous wood blocking at mechanical rooms / bathroomsâ—Wood blocking at roofâ€‹Division 070000 - Thermal & Moisture Protection:â—Metal wall panels and wall insulationâ—Membrane roofing & R-30 rigid roof insulation over metal deck with associated copings, flashings & accessories for a complete warrantable system, internally drained roof systemâ—Canopy roofing at exit doorsâ—Joint sealants & caulkingâ—Roof hatchâ€‹Division 080000 - Doors, Specialty Doors & Windows:â—Exterior hollow metal doors, hollow metal frames & commercial hardwareâ—Rated interior MEP room hollow metal doors, hollow metal frames & commercial hardwareâ—Aluminum & glass entry doors & storefrontâ—Aluminum & glass windowsâ—Aluminum solar shades as indicatedâ€‹Division 090000 - Finishes:â—Painting hollow metal doors & framesâ—Paint miscellaneous steelDivision 100000 - Specialties:â—Fire extinguishers as required by codeâ—Code compliance signageDivision 140000- Elevators:â—One (1) 2,500 lb. two stop elevatorâ€‹Division 210000 - Fire Protection:â—Wet type NFPA 13 sprinkler systemâ—Semi recessed headsDivision 220000 - Plumbing:â—Domestic water service into office areaâ—Below grade sanitary pipingâ—Domestic hot & cold water distributionâ—Floor drains in bathrooms/ mechanical roomsâ—Roof drains & below grade pipingâ—Sanitary risers & ventsâ—Valves, stops & trimsâ—Natural gas piping to roof mounted heating equipmentâ—Electric water coolerâ—Bathroom plumbing fixtures per codeâ—Twelve (12) waterclosetsâ—Sinksâ—Electric water heaterâ€‹Division 230000 - HVAC:â—Packaged gas fired roof top units for heating, cooling & ventilationâ—Exhaust fans at bathroomsâ€‹Division 260000 - Electrical:â—Temporary power & lighting during constructionâ—High & low voltage panels & transformer fed from Phase I electrical service entranceâ—Power & electrical connections to heating & ventilation equipmentâ—Exterior building lightingâ—Site lightingâ€‹Division 283123- Fire Alarm System:â—Addressable fire alarm system per codeDivision 300000 - 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All work will be performed in a professional, warrantable and workman like manor and in full compliance with OSHA requirements and NYS labor laws for a private construction projectDivision 010000 - General Conditions:â—Architectural & structural designâ—Site/civil engineeringâ—MEP Designâ—Wetland delineationâ—Geotechnical engineeringâ—Project managementâ—Full-time field supervisionâ—Design development (pre-construction support)â—Safetyâ—Temporary field officeâ—Postal & printing costsâ—Survey & layoutâ—Temporary facilitiesâ—Weekly cleaningâ—Final cleaningâ—Dumpster(s)â—General liability insuranceâ—Builders risk insuranceâ—Building permitâ€‹Division 030000 - Concrete & Reinforcement:â—Cast-in-place concrete footings, foundations walls, & isolated piersâ—6â€ slab on grade with WWF 6 x 6 W2.9 x W2.9, 4,000 psi throughoutâ—Concrete steel reinforcing at footings & foundationsâ—Rigid foundation insulation per codeâ—Concrete pads at building entrances, dumpster, transformer, etc.â—Concrete walks to building main entrancesâ€‹EXHIBIT D - LANDLORDS WORKDivision 050000- Structural Steel & Metals:â—Structural steel metal frame, columns, bracing, purlins, girts, bar joists, metal deck & erectionâ—Column spacing 50â€™Â± x 50â€™â—30â€™ clear ceiling height minimumâ—Exposed structure to be prime paintedâ—Metal canopy systems at exit doorsâ—Pipe bollards at grade sectional doorsâ—Miscellaneous steel framing at sectional dock & sectional grade doorsâ€‹Division 060000 - Wood & Plastics:â—Miscellaneous wood blocking at mechanical roomsâ—Wood blocking at roofDivision 070000- Thermal & Moisture Protection:â—Metal wall panels and wall insulationâ—Membrane roofing & R-30 rigid roof insulation over metal deck with associated copings, flashings & accessories for a complete warrantable system, internally drained roof systemâ—Canopy roofing at exit doorsâ—Joint sealants & caulkingâ€‹Division 080000 - Doors, Specialty Doors & Windows:â—Exterior hollow metal doors, hollow metal frames & commercial hardwareâ—Rated interior MEP room hollow metal doors, hollow metal frames & commercial hardwareâ—Aluminum & glass entry doors & storefrontâ—Aluminum & glass windowsâ—Six (6) 9â€™ x 10â€™ sectional dock doors, manual operationâ—One (1) 12â€™ x 14â€™ sectional grade door, manual operationâ€‹Division 090000 - Finishes:â—Painting hollow metal doors & framesâ—Paint miscellaneous steelDivision 100000 - Specialties:â—Fire extinguishers as required by codeâ—Code compliance signageDivision 110000 - Loading Dock Equipment:â—Six (6) edge of dock levelers ï,·â—Six (6) dock sealsDivision 210000- Fire Protection:â—Wet type ESFR sprinkler system, 1,000 gpmâ€‹Division 220000 - Plumbing:â—Domestic water service to buildingâ—Roof drains & below grade pipingâ—Natural gas piping to heating equipmentâ—Plumbing fixturesoTen (10) waterclosetsoSinksâ€‹Division 230000-HVAC:â—Gas fired Cambridge air rotation units, heat onlyâ—Electric unit heaters for mechanical roomsâ—Roof mounted packaged DX cooling units - seven (7) 20 ton unitsâ€‹Division 260000 - Electrical:â—Temporary power & lighting during constructionâ—High & low voltage panels & transformer fed from Phase I electrical service entranceâ—Power distribution & outletsâ—Lighting & switchingoLight fixtures to be LED with occupancy sensors throughoutâ—Power & electrical connections to heating & ventilation equipmentâ—Exterior building lightingâ—Site lightingâ€‹Division 283123 - Fire Alarm System:â—Addressable fire alarm system per codeDivision 300000 - Sitework:â—Clearing & grubbingâ—SWPPP/erosion controls & SWPPP inspectionsâ—Strip & stock pile topsoilâ—Cut/fill existing site to meet new grade requirementsâ—Spread topsoil from stockpileâ—Excavation & backfill of foundations & underground plumbingâ—Stabilization fabric for asphalt pavement & site concreteâ—Sub base for building slab on grade, asphalt pavement & site concreteâ—Asphalt paving with associated pavement marking & traffic signage as specifiedâ—Heavy duty asphalt paving at truck areas as specifiedâ—Storm sewer system including excavation, backfill, piping, infiltration & drainage structuresâ—Gravity sanitary sewer system including excavation, backfill, piping & cleanout assembly stubbed into buildingâ—Fire hydrants as requiredâ—Site lighting including excavation, backfill, concrete bases, wiring & fixturesâ—Concrete curbingâ—Concrete sidewalks at building entranceâ€‹EXHIBIT D - LANDLORDS WORKâ—Rake, fertilize, seed & mulch lawn areasâ—Landscaping/plantingsâ—Commercial grade security fencing & gates at select locationsâ—Commercial grade chain link at SWPPP basinsâ—At the culmination of Phase I, II & Ill, the project will provide for a total of 600 parking spaces, 25 tractor trailer parking spaces & a one acre laydown area.â€‹Division 400000 - Allowances:â—Tenant fit-up allowance:$ 300,000.Fit-up allowance may extend beyond Phase Ill initial occupancyExclusions:â—Payment & performance bondsâ—Affirmative action goals for M/WBE & veteran participationâ—Monument & building signageâ—Generatorâ—Security, surveillance & access controlâ—Tel/data equipment & cablingâ—Transporting, unloading, hoisting, distribution, installation & final connections of new & existing owner supplied equipmentâ—FF&Eâ—In rack fire suppressionâ—Office fit-upâ—Floor/ trench drains at warehouse/ manufacturingâ—Compressed air, hydrogen, & other specialty pipingâ—Air compressorâ—Hydrogen tank/ padâ—BMS systemâ—Lighting controlsâ—Electrical distributionâ—Solar panelsâ—Mezzanines / preparations for future mezzaninesâ—Block heater(s)â—Fuel tank(s)â—Facility garage (service/ maintenance garage)â—Security building/ guard shackâ—Traffic control/ barriersâ—Safety showers / eye wash stationsâ—Canopy at Laydown areaâ—Pedestrian bridgeâ—Test & Verification Room & systemsâ—Concrete dock/ landing padsENDâ€‹â€‹EXHIBIT ESUBORDINATION NON DISTURBANCE AGREEMENTâ€‹â€‹(â€œMortgageeâ€)â€‹â€‹â€‹andâ€‹â€‹â€‹â€‹â€‹(â€œTenantâ€)â€‹â€‹â€‹SUBORDINATION, NON-DISTURBANCEAND ATTORNMENT AGREEMENTâ€‹â€‹â€‹â€‹ â€‹, 20___â€‹This instrument affects real property situated, lying and being in the City of â€‹ â€‹, County of â€‹ â€‹â€‹ â€‹, State of New York at ______________________________.â€‹Section: Volume:Block(s):Lot(s):â€‹RECORD AND RETURN TO:NO MORTGAGE RECORDING TAX IS PAYABLE WITH RESPECT TO THIS AGREEMENT. NOTHING IN THIS AGREEMENT IS INTENDED TO EVIDENCE OR SECURE ANY INDEBTEDNESS OR TO CREATE ANY LIEN.â€‹â€‹Albany, New YorkSUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENTâ€‹THIS SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT (this â€œAgreementâ€) is entered into as of ______________, 20___ (the â€œEffective Dateâ€), between â€‹ â€‹(â€œMortgageeâ€), and â€‹ â€‹, with an address at â€‹ â€‹(â€œTenantâ€), with reference to the following facts:A.â€‹ â€‹, with an address at â€‹ â€‹â€‹ â€‹_ (â€œLandlordâ€), owns the fee interest in real property located at â€‹ â€‹, City of â€‹ â€‹â€‹ â€‹, County of â€‹ â€‹, State of New York (such real property, including all buildings, improvements, structures and fixtures located thereon, â€œLandlord Premisesâ€), as more particularly described in Schedule A.B.Mortgagee has made a loan to Landlord in the original principal amount of $â€‹ â€‹(the â€œLoanâ€).C.To secure the Loan, Landlord has encumbered Landlordâ€™s Premises by entering into that certain Mortgage, dated as of â€‹ â€‹, 2012, in favor of Mortgagee (as amended, increased, renewed, extended, spread, consolidated, restated, or otherwise changed from time to time, the â€œMortgageâ€) to be recorded in the Official Records of the County of â€‹ â€‹, State of New York (the â€œLand Recordsâ€).D.Pursuant to a Lease dated as of â€‹ â€‹â€‹ â€‹(the â€œLeaseâ€), Landlord demised to Tenant a portion of Landlordâ€™s Premises (â€œTenantâ€™s Premisesâ€). Tenantâ€™s Premises are commonly known asE.A memorandum of the Lease may be recorded in the Land Records prior to the recording of this Agreement.F.Tenant and Mortgagee desire to agree upon the relative priorities of their interests in Landlordâ€™s Premises and their rights and obligations if certain events occur.NOW, THEREFORE, for good and sufficient consideration, Tenant and Mortgageeagree:1.Definitions.The following terms shall have the following meanings for purposes of this Agreement.â€‹1.1Construction-Related Obligation. A â€œConstruction-Related Obligationâ€ means any obligation of Landlord under the Lease to make, pay for, or reimburse Tenant for any alterations, demolition or other improvements or work at Landlordâ€™s Premises, including Tenantâ€™s Premises. â€œConstruction-Related Obligationsâ€ shall not include (a) reconstruction or repair following fire, casualty or condemnation; or (b) day-to-day maintenance and repairs.1.2Foreclosure Event. A â€œForeclosure Eventâ€ means (a) foreclosure under the Mortgage; (b) any other exercise by Mortgagee of rights and remedies (whether under the Mortgage or under applicable law, including bankruptcy law) as holder of the Loan and/or the Mortgage, as a result of which Successor Landlord becomes owner of Landlordâ€™s Premises; or (c) delivery by Landlord to Mortgagee (or its designee or nominee) of a deed or other conveyance of Landlordâ€™s interest in Landlordâ€™s Premises in lieu of any of the foregoing.1.3Former Landlord A â€œFormer Landlordâ€ means Landlord and any other party that was landlord under the Lease at any time before the occurrence of any attornment under this Agreement.1.4Offset Right. An â€œOffset Rightâ€ means any right or alleged right of Tenant to any offset, defense (other than one arising from actual payment and performance, which payment and performance would bind a Successor Landlord pursuant to this Agreement), claim, counterclaim, reduction, deduction, or abatement against Tenantâ€™s payment of Rent or performance of Tenantâ€™s other obligations under the Lease, arising (whether under the Lease or other applicable law) from Landlordâ€™s breach or default under the Lease.1.5Rent. The â€œRentâ€ means any fixed rent, base rent or additional rent under the Lease.1.6Successor Landlord A â€œSuccessor Landlordâ€ means any party that becomes owner of Landlordâ€™s Premises as the result of a Foreclosure Event.1.7Termination Right. A â€œTermination Rightâ€ means any right of Tenant to cancel or terminate the Lease or to claim a partial or total eviction arising (whether under the Lease or under applicable law) from Landlordâ€™s breach or default under the Lease.2.Subordination.The Lease shall be, and shall at all times remain, subject and subordinate to the Mortgage, the lien imposed by the Mortgage, and all advances made under the Mortgage.â€‹3.Non-disturbance, Recognition and Attornment.3.1No Exercise of Mortgage Remedies Against Tenant. So long as the Lease has not been terminated on account of Tenantâ€™s default that has continued beyond applicable cure periods (an â€œEvent of Defaultâ€), Mortgagee shall not name or join Tenant as a defendant in any exercise of Mortgageeâ€™s rights and remedies arising upon a default under the Mortgage unless applicable law requires Tenant to be made a party thereto as a condition to proceeding against Landlord or prosecuting such rights and remedies. In the latter case, Mortgagee may join Tenant as a defendant in such action only for such purpose and not to terminate the Lease or otherwise adversely affect Tenantâ€™s rights under the Lease or this Agreement in such action.3.2Non-disturbance and Attornment. If the Lease has not been terminated on account of an Event of Default by Tenant, then, when Successor Landlord takes title to Landlordâ€™s Premises: (a) Successor Landlord shall not terminate or disturb Tenantâ€™s possession of Tenantâ€™s Premises under the Lease, except in accordance with the terms of the Lease and this Agreement; (b) Successor Landlord shall be bound to Tenant under all the terms and conditions of the Lease (except as provided in this Agreement); (c) Tenant shall recognize and attorn to Successor Landlord as Tenantâ€™s direct landlord under the Lease as affected by this Agreement; and (d) the Lease shall continue in full force and effect as a direct lease, in accordance with its terms (except as provided in this Agreement), between Successor Landlord and Tenant.3.3Further Documentation. The provisions of this Article shall be effective and shelf-operative without any need for Successor Landlord or Tenant to execute any further documents. Tenant and Successor Landlord shall, however, confirm the provisions of this Article in writing upon request by either of them.4.Protection of Successor Landlord. Notwithstanding anything to the contrary in the Lease or the Mortgage, Successor Landlord shall not be liable or bound by any of the following matters:4.1Claims Against Former Landlord. Any Offset Right that Tenant may have against any Former Landlord relating to any event or occurrence before the date of attornment, including any claim for damages of any kind whatsoever as the result of any breach by Former Landlord that occurred before the date of attornment. (The foregoing shall not limit either (a) Tenantâ€™s right to exercise against Successor Landlord any Offset Right otherwise available to Tenant because of events occurring after the date of attornment or (b) Successor Landlordâ€™s obligation to correct any conditions that existed as of the date of attornment and violate Successor Landlordâ€™s obligations as landlord under the Lease.)â€‹4.2Prepayments. Any payment of Rent that Tenant may have made to Former Landlord more than thirty days before the date such Rent was first due and payable under the Lease with respect to any period after the date of attornment other than, and only to the extent that, the Lease expressly required such a prepayment.4.3Payment: Security Deposit. Any obligation (a) to pay Tenant any sum(s) that any Former Landlord owed to Tenant or (b) with respect to any security deposited with Former Landlord, unless such security was actually delivered to Mortgagee. This paragraph is not intended to apply to Landlordâ€™s obligation to make any payment that constitutes a Construction-Related Obligation.4.4Modification, Amendment or Waiver. Any modification or amendment of the Lease, or any waiver of any terms of the Lease, made without Mortgageeâ€™s written consent.4.5Surrender, Etc. Any consensual or negotiated surrender, cancellation, or termination of the Lease, in whole or in part, agreed upon between Landlord and Tenant, unless effected unilaterally by Tenant pursuant to the express terms of the Lease.4.6Construction-Related Obligations. Any Construction-Related Obligations of Former Landlord except as expressly provided for in Schedule B (if any) attached to this Agreement.5.Exculpation of Successor Landlord Notwithstanding anything to the contrary in this Agreement or the Lease, upon any attornment pursuant to this Agreement the Lease shall be deemed to have been automatically amended to provide that Successor Landlordâ€™s obligations and liability under the Lease shall never extend beyond Successor Landlordâ€™s (or its successorsâ€™ or assignmentâ€™s) interest, in any, in Landlordâ€™s Premises from time to time, including insurance and condemnation proceeds, Successor Landlordâ€™s interest in the Lease, and the proceeds from any sale or other disposition of Landlordâ€™s Premises by Successor Landlord (collectively, â€œSuccessor Landlordâ€™s Interestâ€). Tenant shall look exclusively to Successor Landlordâ€™s Interest (or that of its successors and assigns) for payment or discharge of any obligations of Successor Landlord under the Lease as affected by this Agreement. If Tenant obtains any money judgment against Successor Landlord with respect to the Lease or the relationship between Successor Landlord and Tenant, then Tenant shall look solely to Successor Landlordâ€™s Interest (or that of its successors and assigns) to collect such judgment. Tenant shall not collect or attempt to collect any such judgment out of any other assets of Successor Landlord.6.Mortgageeâ€™s Right to Cure.â€‹6.1Notice of Mortgagee. Notwithstanding anything to the contrary in the Lease or this Agreement or the Lease, before exercising any Termination Right or Offset Right or cancellation right, Tenant shall provide Mortgagee with notice of the breach or default by Landlord giving rise to same (the â€œDefault Noticeâ€) and, thereafter, the opportunity to cure such breach or default as provided for below.6.2Mortgageeâ€™s Cure Period After Mortgagee receives a Default Notice, Mortgagee shall have a period of thirty (30) days beyond the time available to Landlord under the Lease in which to cure the breach or default by Landlord. Mortgagee shall have no obligation to cure (and shall have no liability or obligation for not curing) any breach or default by Landlord, except to the extent that Mortgagee agrees or undertakes otherwise in writing.6.3Extended Cure Period. In addition, as to any breach or default by Landlord the cure of which requires possession and control of Landlordâ€™s Premises, provided only that Mortgagee undertakes to Tenant by written notice to Tenant within thirty (30) days after receipt of the Default Notice to exercise reasonable efforts to cure or cause to be cured by a receiver such breach or default within the period permitted by this paragraph, Mortgageeâ€™s cure period shall continue for such additional time (the â€œExtended Cure Periodâ€) as Mortgagee may reasonably require to either (a) obtain possession and control of Landlordâ€™s Premises and thereafter cure the breach or default with reasonable diligence and continuity or (b) obtain the appointment of a receiver and give such receiver a reasonable period of time in which to cure the default.7.Confirmation of Facts. Tenant represents to Mortgagee and to any Successor Landlord, in each case as of the Effective Date:7.1Effectiveness of Lease. The Lease is in full force and effect, has not been modified, and constitutes the entire agreement between Landlord and Tenant relating to Tenantâ€™s Premises. Tenant has no interest in Landlordâ€™s Premises except pursuant to the Lease. No unfulfilled conditions exist to Tenantâ€™s obligations under the Lease.7.2Rent. Tenant has not paid any Rent that is first due and payable under the Lease after the Effective Date.7.3No Landlord Default. To the best of Tenantâ€™s knowledge, no breach or default by Landlord exists and no event has occurred that, with the giving of notice, the passage of time or both, would constitute such breach or default.â€‹7.4No Tenant Default. Tenant is not in default under the Lease and has not received any uncured notice of any default to Tenant under the Lease.7.5No Termination. Tenant has not commenced any action nor sent or received any notice to terminate the Lease. Tenant has no presently exercisable Termination Right(s) or Offset Right(s).7.6of the Lease was _______________________. Commencement Date. The â€œCommencement Dateâ€7.7Acceptance. Except as set forth in Schedule B (if any) attached to this Agreement: (a) Tenant has accepted possession of Tenantâ€™s Premises; and (b) Landlord has performed all Construction-Related Obligations related to Tenantâ€™s initial occupancy of Tenantâ€™s Premises and Tenant has accepted such performance by Landlord.7.8No Transfer. Tenant has not transferred, encumbered, mortgaged, assigned, conveyed or otherwise disposed of the Lease or any interest therein, other than sublease(s) made in compliance with the Lease.7.9Due Authorization. Tenant has full authority to enter into this Agreement, which has been duly authorized by all necessary actions.8.Miscellaneous.8.1Notices. All notices or other communications required or permitted under this Agreement shall be in writing and given by certified mail (return receipt requested) or by nationally recognized overnight courier service that regularly maintains records of items delivered. Each partyâ€™s address is as set forth in the opening paragraph of this Agreement, subject to change by notice under this paragraph. Notices shall be effective the next business day after being sent by overnight courier service, and five (5) business days after being sent by certified mail (return receipt requested).8.2Successors and Assigns. This Agreement shall bind and benefit the parties, their successors and assigns, any Successor Landlord, and its successors and assigns. If Mortgagee assigns the Mortgage, then upon delivery to Tenant of written notice thereof accompanied by the assigneeâ€™s written assumption of all obligations under this Agreement, all liability of the assignor shall terminate.8.3Entire Agreement. This Agreement constitutes the entire agreement between Mortgagee and Tenant regarding the subordination of the Lease to the Mortgage and the rights and obligations of Tenant and Mortgagee as to the subject matter of this Agreement.â€‹8.4Interaction with Lease and with Mortgage. If this Agreement conflicts with the Lease, then this Agreement shall govern as between the parties and any Successor Landlord, including upon any attornment pursuant to this Agreement. This Agreement supersedes, and constitutes full compliance with, any provisions in the Lease that provide for subordination of the Lease to, or for delivery of non-disturbance agreements by the holder of the Mortgage. Mortgagee confirms that Mortgagee has consented to Landlordâ€™s entering into the Lease.8.5Mortgageeâ€™s Rights and Obligations. Except as expressly provided for in this Agreement Mortgagee shall have no obligations to Tenant with respect to the Lease. If an attornment occurs pursuant to this Agreement, then all rights and obligations of Mortgagee under this Agreement shall terminate, without thereby affecting in any way the rights and obligation of Successor Landlord provided for in this Agreement.8.6Interpretation; Governing Law. The interpretation, validity and enforcement of this Agreement shall be governed by and construed under the internal laws of the State of New York, excluding its principles of conflict of laws.8.7Amendments. This Agreement may be amended, discharged or terminated, or any of its provisions waived, only by a written instrument executed by the party to be charged.8.8Execution. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.8.9Mortgageeâ€™s Representation. Mortgagee represents that Mortgagee has full authority to enter into this Agreement, and Mortgageeâ€™s entry into this Agreement has been duly authorized by all necessary actions.[Nothing Further Contained on this Page]â€‹IN WITNESS WHEREOF, this Agreement has been duly executed by Mortgagee and Tenant as of the Effective Date.â€‹â€‹â€‹â€‹â€‹MORTGAGEE:â€‹â€‹â€‹By:â€‹â€‹Name:â€‹â€‹Title:â€‹â€‹â€‹â€‹â€‹TENANT:â€‹â€‹â€‹â€‹By:â€‹â€‹Name:â€‹â€‹Title:â€‹â€‹Dated ______________, 20___.â€‹ACKNOWLEDGMENTSâ€‹â€‹STATE OF NEW YORK)â€‹)ss.:â€‹COUNTY OF ALBANY)â€‹â€‹On the ____day of ___________________, 20___, before me the undersigned, a Notary Public in and for said State, personally appeared â€‹ â€‹â€‹ â€‹, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or person upon behalf of which the individual acted, executed the instrument.â€‹â€‹â€‹Notary Publicâ€‹STATE OF NEW YORK)â€‹)ss.:â€‹COUNTY OF ALBANY)â€‹â€‹On the ____day of __________________, 20___, before me the undersigned, a Notary Public in and for said State, personally appeared â€‹ â€‹â€‹ â€‹, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or person upon behalf of which the individual acted, executed the instrument.â€‹â€‹Notary Publicâ€‹Schedule ADescription of Landlordâ€™s Premisesâ€‹Schedule Bâ€‹Construction-Related Obligationsâ€‹â€‹A. Performed as of Effective Date.Construction-Related Obligations Remaining to beâ€‹â€‹â€‹NONEâ€‹â€‹B. Obligation After Attornment.Successor Landlordâ€™s Construction-Relatedâ€‹â€‹â€‹NONEâ€‹â€‹EXHIBIT FTENANT ESTOPPEL CERTIFICATE___________________, 20___RE:Property located at: â€‹ â€‹(â€œPremisesâ€).Gentlemen:You have advised us that â€‹ â€‹â€‹ â€‹(the â€œBankâ€) is planning to make a loan secured by a first mortgage on the above captioned property in which the undersigned presently occupies space under a lease dated â€‹ â€‹â€‹ â€‹â€‹ â€‹(the â€œLeaseâ€) between the undersigned (the â€œTenantâ€) and â€‹ â€‹, a New York limited liability company (the â€œLandlordâ€).Incident to the Bankâ€™s loan and mortgage, and at your request, we hereby warrant, represent and certify to the Bank as follows:1.The undersigned is, as of the date of this letter, the holder of the Tenantâ€™s interest under the Lease, and the Lease has not been modified, amended or supplemented in any manner except for:____.The undersigned will not enter into any modification of the Lease without notifying the Bank in the manner set forth hereinbelow.2.The term of the Lease is presently scheduled to expire on _____________, ___. If there are any rights of extension or renewal remaining under the terms of the Lease, the same have not, as of the date of this letter, been exercised except for ________.There are 2 options for the undersigned to extend the current term of the Lease for five (5) years each with the first such option commencing on ______________________, ___.3.The undersigned, as the holder of the Tenantâ€™s interest under the Lease, is in occupancy of all of the Premises covered by the Lease and is actively conducting its business therein, which business is the use stipulated as the use of the Premises demised by the Lease under the terms thereof and the Lease is in full force and effect. The Tenant has not sublet all or any portion of the Premises, or assigned or otherwise transferred its interest in the Lease or the Premises, except for: ____________________________â€‹4.The undersigned is current in the payment of all fixed rent and other charges due to be paid under the Lease, with minimum rent paid, in full, for the period ending ______________, ____.The monthly (i.e. fixed) rent is $__________. No rent or other sum payable under the Lease is being paid in arrears. The undersigned has no defenses, counterclaims or rights of offset against any rents or other sums payable under the Lease.No rent or other sum payable under the Lease has been paid in advance of the due date thereof, and we hereby agree with you that we shall not pay any minimum rent or other sum due to be paid under the Lease more than one (1) month in advance of the due date thereof.5.All of the obligations on the part of the Landlord under the Lease for the performance of any work or installation of any equipment have been carried out, and the undersigned has no claim against the holder of the Landlordâ€™s interest for the incomplete performance of any work or installation, or on account of any claimed defect therein.As of the date of this letter, neither the undersigned nor the holder of the Landlordâ€™s interest under the Lease has failed to make any payment or to perform any obligation which each has to the other.6.If the undersigned should assert a claim that the holder of the Landlordâ€™s interest under the Lease has (i) failed to perform an obligation to the undersigned under the terms of the Lease or otherwise, or (ii) is in default under the Lease in any respect, written notice thereof shall promptly be furnished to the Bank, by certified mail to the following address: __________________________, ____, Attention: ___________________________________, and the undersigned agrees that it will not exercise any rights which it might otherwise have on account of such failure or default until such notice has been given, and the Bank has had the same opportunity to cure any such failure as the holder of the Landlordâ€™s interest under the Lease may have. The person signing this letter on behalf of the Tenant is a duly authorized representative and agent of the Tenant.7.A security deposit of $n/a has been paid in connection with the Lease. In the event the Bank succeeds to Landlordâ€™s interest under the Lease, Bank shall not be obligated to the undersigned for such security deposit unless such security deposit was actually received by the Bank.8.Tenant has not filed and is not the subject of any filing for bankruptcy, arrangement, reorganization or other relief under any chapter of the Federal Bankruptcy Code or any similar state or federal law.â€‹The undersigned acknowledges that the Bank will be relying upon the undersignedâ€™s representations contained in this letter in proceeding with the loan and mortgage as described above.Very truly yours,â€‹EXHIBIT GPILOT SCHEDULE11-22-21â€‹â€‹â€‹PILOT YEARLAND ASSESSMENTSAVINGSIMPROVEMENTSASSESSMENTSAVINGS*10%100%20%100%30%90%40%80%50%70%60%60%70%50%80%40%90%30%100%20%110%10%120%0%â€‹*Special municipal assessments, including but not limited to, Water, Sewer, Ambulance, Fire, Lighting and Library, are not eligible for assessment savings.â€‹EXHIBIT HGreen Building PracticesGreen Building Practices in ConstructionBBL is a proud member of the USGBC and has constructed numerous LEED certified buildings. We understand that even if a client may not be seeking LEED certification, most are still interested in supporting environmentally responsible development and energy efficient construction. As such, we typically incorporate the following into a majority of our projects.Common Green Building Practicesâ—Energy efficient code compliance building envelopeâ—LED lightingâ—Occupancy sensorsâ—New materials composing of recycled contentâ—Low volatile organic compound (VOC) materialsâ—High efficiency HVAC systemsâ—Energy star appliancesâ—Low-flow plumbing fixturesâ—Construction waste management (separating recyclable construction waste)â—Bike racks EX-10.7 6 plug-20240630xex10d7.htm EX-10.7 Exhibit 10.7â€‹FIRST AMENDMENT TO SUBLEASE AGREEMENTâ€‹FIRST AMENDMENT TO SUBLEASE AGREEMENT (â€œAmendmentâ€), made as of the 26th day of May, 2022, by and between Campus Associates XII LLC, having its principal office at 302 Washington Avenue Extension, Albany, New York 12203 (â€œLandlordâ€) and Plug Power, Inc. a New York corporation with an address at 968 Albany Shaker Road, Latham, New York 12110 (â€œTenantâ€).â€‹WHEREAS, Vista Real Estate Development LLC and Tenant entered into that certain Sublease Agreement dated December 15, 2021 (â€œSubleaseâ€) with respect to a portion of the land and a 350,000 sf facility located at 125 Vista Boulevard, Town of Bethlehem, County of Albany, State of New York (â€œPremisesâ€); andWHEREAS, Vista Real Estate Development LLC assigned all right, title and interest in and to the Sublease to Landlord; andWHEREAS, pursuant to Section 4.01(A) of the Sublease Tenant desires to request the Additional Allowance in the amount of $2,000,000 from Landlord; andâ€‹WHEREAS, the parties desire to memorialize the Additional Allowance and resulting additional rent payments due therein; andâ€‹WHEREAS, Tenant desires to modify Tenantâ€™s Work under the Lease which will necessarily modify Landlordâ€™s Work as well.â€‹NOW THEREFORE, the parties agree as follows:â€‹I.All capitalized terms used herein but not specifically defined shall have the meaning set forth in the Sublease2.Pursuant to Section 4.01(A) of the Sublease, Tenant has exercised its option to increase the Allowance by an additional $2,000,000. The Additional Allowance shall be repaid by Tenant to Landlord as follows and shall be considered rent under the Lease. Commencing on the Full Rent Commencement Date, Tenant shall begin repayment of the $2,000,000 at a 4.5% annual interest rate over the IO-year term as follows which amount shall be considered additional rent under the Sublease: Commencing on the Full Rent Commencement Date, Tenant shall pay to the Landlord $248,732.00 per annum payable in equal monthly installments of $20,727.68. Such payments shall be due and payable on the first day of each month during the term along with payments of base rent. Portions a month shall be prorated. In the event the $2,000,000 is not fully repaid to the Landlord prior to the expiration or earlier termination of this Sublease, the remaining balance shall be paid to the Landlord, in full, as of the date of termination or earlier expiration of the Sublease. The parties agree this payment obligation may be assigned by the Landlord to a third party without assigning the remainder of the Lease or its obligations. This payment obligation shall survive the termination or expiration of the Sublease.â€‹â€‹3.Section 4.02 of the Lease provides that Substantial Completion of Phase shall occur on or before July 31, 2022 and Substantial Completion of Phase 2 and Phase 3 shall occur on or before December 31, 2022. A portion of Tenantâ€™s Work has caused changes to the Landlordâ€™s Work and such changes known to date are identified on Exhibit 1 attached hereto. Landlord and Tenant hereby acknowledge that one of such changes requested by Tenant has been confirmed to cause a delay of up to 14 days in the delivery of Phase 2 and Phase 3, and others may result in additional delays in the Substantial Completion of Landlordâ€™s Work. Therefore, the parties agree to update and review Exhibit 1 bi-weekly to ensure accurate and timely communication of any potential delays. Further, Tenant agrees that if the Landlord or Landlordâ€™s contractor confirms that a delay to the date of Substantial Completion will be caused as a direct result of a Tenantâ€™s Work item, Tenant shall have the option to either: (I) work with Landlord and Landlordâ€™s contractor to modify or eliminate the Tenantâ€™s Work item in order to eliminate the delay, or (2) waive any penalty to Landlord for failing to timely achieve Substantial Completion as a result of the Tenantâ€™s Work item and agree that such change shall be deemed to be a Tenant Delay as set forth in the Lease.â€‹4.Section 3.01 of the Lease provides Tenant with an option to reduce its Annual Rent with a payment to Landlord not to exceed $5,000,000. Tenant waives this option.â€‹5.The following shall be added to Section 13.04 of the Lease: As part of Tenantâ€™s Work, Tenant is installing a fire wall surrounding the Phase 2 service building testing and verification area in the Building (â€œFire Wallâ€). At Landlordâ€™s option at the expiration or earlier termination of the Lease, Tenant shall remove the Fire Wall and repair and restore the Building and roof as may be necessary (â€œFire Wall Removal Optionâ€). Should Landlord desire to exercise the Fire Wall Removal Option, Landlord shall provide written notice to Tenant as soon as possible, but in no event later than seven (7) days following the date. of expiration or earlier termination of the Lease. Tenant shall then have sixty (60) days to remove the Fire Wall and repair and restore the Building and roof as may be necessary. The Parties may mutually agree to extend Tenantâ€™s time to remove the Fire Wall and repair and restore the Building and roof. This provision shall survive the expiration or earlier termination of the Lease.â€‹6.Except as expressly set forth herein, all terms and conditions of the Sublease shall remain unchanged and in full force and effect.â€‹SIGNATURE PAGE FOLLOWSâ€‹â€‹IN WITNESS WHEREOF, the parties have executed this Amendment as of the date set forth above,â€‹â€‹Plug Power, Inc.â€‹â€‹â€‹â€‹â€‹By: /s/ Matthew L. SavoieÂ Â Â Â â€‹Name: Matthew L.

Savoieâ€‹â€‹Title: Director of Facilitiesâ€‹â€‹â€‹â€‹Campus Associates XII LLCâ€‹â€‹â€‹â€‹â€‹THE JOSEPH R. NICOLLAâ€‹â€‹REVOCABLE TRUST U/A DATEDâ€‹â€‹MAY 9, 2014, AS AMENDED ANDâ€‹â€‹RESTATEDâ€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹By: /s/ Joseph R. NicollaÂ Â Â Â â€‹Name: Joseph R. Nicollaâ€‹â€‹Title: Trusteeâ€‹â€‹â€‹â€‹Vista Real Estate Development LLCâ€‹â€‹â€‹â€‹â€‹By: /s/ Joseph R. NicollaÂ Â Â Â â€‹Name: Joseph R. Nicollaâ€‹â€‹Title: Authorized Representativeâ€‹â€‹â€‹â€‹Exhibit 1Tenantâ€™s Work which impacts Landlordâ€™s Workâ€‹â€‹â€‹â€‹ EX-10.8 7 plug-20240630xex10d8.htm EX-10.8 Exhibit 10.8â€‹SECOND AMENDMENT TO SUBLEASE AGREEMENTâ€‹SECOND AMENDMENT TO SUBLEASE AGREEMENT (â€œAmendmentâ€), made as of the 14th day of February, 2024, by and between Campus Associates XII LLC, having its principal office at 302 Washington Avenue Extension, Albany, New York 12203 (â€œLandlordâ€) and Plug Power Inc. having its principal office at 968 Albany Shaker Road, Latham, New York 12110 (â€œTenantâ€).WHEREAS, Vista Real Estate Development LLC and Tenant entered into that certain Sublease Agreement dated December 15, 2021 with respect to a portion of the land and a 350,000 sf facility located at 125 Vista Boulevard, Town of Bethlehem, County of Albany, State of New York (â€œPremisesâ€); andWHEREAS, Vista Real Estate Development LLC assigned all right, title and interest in and to the Sublease to Landlord; andWHEREAS, Landlord and Tenant executed a First Amendment to Sublease Agreement dated May 26, 2022 (together with the Sublease Agreement the â€œSubleaseâ€); andWHEREAS, Section 10.02(B) of the Sublease contains Landlordâ€™s obligation with respect to insurance coverage;WHEREAS, Landlord and Tenant desire that Tenant assume the obligation to obtain and maintain some of the coverages set forth in Section 10.02(B) as more specifically set forth herein.NOW THEREFORE, the parties agree as follows:1.All capitalized terms used herein but not specifically defined shall have the meaning set forth in the Sublease.2.Section I0.02(B) of the Sublease contains Landlordâ€™s requirements for insurance during the term of the Lease. As a result of the Tenantâ€™s operations at the Premises property insurance is difficult and very costly for the Landlord to obtain. Therefore, the parties agree that Tenant shall obtain and maintain during the Term of the Lease, the insurance coverages set forth in Section 10.02(B)(i) and (ii) of the Lease (â€œProperty Coverageâ€).The specific requirements for such coverages as of the date hereof are set forth on Exhibit A attached to this Amendment.Upon execution of this Amendment Tenant shall provide to the Landlord a certificate of insurance (the â€œCertificateâ€) evidencing the required Property Coverage. The existing coverage shall not be cancelled until such time as the Certificate is delivered to and approved by the Landlordâ€™s lender (KeyBank National Association, hereinafter â€œLenderâ€), in writing. The certificate shall name Landlordâ€™s Lender, its successorsâ€‹â€‹and/or assigns, as their interest may appear as first loss payee/mortgagee, and shall name Landlord and Vista Real Estate Development LLC (if requested by Landlord) as beneficiary and loss payee. The certificate of insurance shall confirm thirty (30) days advance written notice to the Landlord and its Lender in the event of the cancellation, for any reason except for non-payment of premium, in which case the advance written notice to the Landlord and its Lender will be then (10) days, and/or non-renewal of the coverages certified. Without request by Landlord, the certificate of insurance shall be renewed and submitted to the Landlord annually prior to the expiration of Tenantâ€™s then current commercial general liability insurance policy for the duration of the Term of this Lease.In the event of a casualty, the deductible shall be paid by Tenant.If Tenant fails at any time to take out, pay for, or maintain and deliver certificates or other evidence of Property Coverage acceptable to Landlord and its Lender, then Landlord, without notice to Tenant and without waiving or releasing Tenant from any obligation of Tenant contained in this Lease, may (but shall not be obligated to) take out, pay for and maintain any of the Property Coverage provided for in this Amendment or, as to Landlordâ€™s Lender, in any mortgage agreement covering the Premises, and any sums paid and costs incurred by Landlord in so doing, together with interest thereon at the Lease Interest Rate shall from the date of such expenditure by Landlord until payment in full, be deemed Additional Rent.3.Except as expressly set forth herein, all terms and conditions of the Sublease shall remain unchanged and in full force and effect. Landlord acknowledges that nothing herein, including the Lenderâ€™s acceptance of the Certificate, shall modify or change any of the insurance requirements set forth in the Mortgage and loan documents entered into between Landlord and Lender.4.Counterparts. This Amendment may be executed in several counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. For purposes of this Amendment, a document (or signature page thereto) signed and transmitted by facsimile machine, email or PDF document, is to be treated as an original document. The signature of any party thereon, for purposes hereof, is to be considered as an original signature, and the document transmitted is to be considered to have the same binding effect as an original signature on an original document.â€‹[Signature page to follow]â€‹â€‹IN WITNESS WHEREOF, the parties have executed this Amendment as of the date set forth above.â€‹â€‹Plug Power Inc.â€‹â€‹â€‹â€‹â€‹By:/s/ Paul Middletonâ€‹Name:Paul Middletonâ€‹Title:CFOâ€‹â€‹Campus Associates XII LLCTHE JOSEPH R. NICOLLAREVOCABLE TRUST U/A DATEDMAY 9, 2014, AS AMENDED ANDRESTATEDâ€‹â€‹â€‹â€‹â€‹By:/s/ Joseph R. Nicollaâ€‹Joseph R. Nicolla, Trusteeâ€‹â€‹â€‹Exhibit AProperty Coverageâ€‹ EX-10.9 8 plug-20240630xex10d9.htm EX-10.9 â€‹Exhibit 10.9â€‹ASSIGNMENT AND MODIFICATION OF GROUND LEASE PREMISES 2â€‹THIS ASSIGNMENT AND MODIFICATION OF GROUND LEASE PREMISES 2 (this â€œAssignmentâ€) dated November 1, 2023, is made by and between Campus Associates XI LLC, a New York limited liability company with an address at 302 Washington Avenue Extension, Albany, New York (â€œCampus Associatesâ€), Vista Development Group, LLC a New York limited liability company with an address at 302 Washington Avenue Extension, Albany, New York 12203 (â€œVista Developmentâ€) and Plug Power, Inc. a New York corporation with an address at 968 Albany Shaker Road, Latham, New York 12110 (â€œPlug Powerâ€).â€‹WHEREAS, Campus Associates and Vista Development entered into a Ground Lease Premises 2 on April 29, 2022, with respect to that certain 16.95 acre parcel of vacant land located at Vista Boulevard, Town of Bethlehem and Town of New Scotland, County of Albany, State of New York (â€œGround Leaseâ€); andâ€‹WHEREAS, Vista Development entered into an Option to Acquire Ground Lease Premises 2 with Campus Associates XII LLC dated December 15, 2021 which provided Campus Associates XII LLC an option to purchase Vista Developmentâ€™s interest in the Ground Lease; andâ€‹WHEREAS, Campus Associates XII LLC subsequently entered into an Option to Purchase Ground Lease with Plug Power dated December 15, 2021, which provided Plug Power an option to purchase Campus XII LLCâ€™s option to purchase the Ground Lease; andâ€‹WHEREAS, as of the date hereof, Plug Power exercised its option to purchase the Ground Lease interest so that the tenantâ€™s interest in the Ground Lease will be assigned from Vista Development to Plug Power; andâ€‹WHEREAS, in addition to the assignment of the ground leasehold interest in the Ground Lease, Campus Associates and Plug Power agree to modify certain terms and conditions of the Ground Lease as expressly set forth herein.â€‹NOW THEREFORE, the parties agree as follows:â€‹1.Defined Terms: All capitalized terms used herein but not specifically defined shall have the meaning set forth in the Ground Lease.â€‹2.Assignment: Vista Development hereby transfers, conveys and assigns to Plug Power all of its right, title and interest in and to the Ground Lease.â€‹3.Assumption: Plug Power hereby assumes all the obligations of Vista Development arising or accruing on or after the date hereof except with respect to all taxes and operating expenses which Plug Power assumes as of August 1, 2023 under the Ground Lease and shall keep and perform all conditions and â€‹1â€‹covenants of the Ground Lease in the same manner as if Plug Power were the original tenant thereunder. Vista Development shall remain responsible for all liabilities and obligations arising or accruing under the Ground Lease prior to the date of this Assignment except with respect to the taxes and operating expenses which Plug Power assumed effective August 1, 2023.â€‹4.Estoppel. Campus Associates and Vista Development each in their individual capacity, and collectively hereunder, hereby warrant and represent to Plug Power, and Plug Power shall be entitled to rely to its detriment on the following statement: (i) there are no other third-party contracts or lease agreements, including any amendments, nor any amendment(s) to the Ground Lease, either written or oral, existing between Campus Associates and/or Vista Development and any third party relating to the Leased Premises besides the Ground Lease; (ii) that all monies owed under the Ground Lease have been paid in a timely manner; (iii) that Vista Development has satisfied all of its obligations under the Lease through the date of this Assignment; (iv) there are not outstanding claims and/or disputes between Campus Associates and Vista Development thereunder; (v) no prepayment of any money and no deposits have been made by Vista Development to Campus Associates except as explicitly provided for in the Ground Lease; and (vi) As of the date of this Assignment, there are no defaults under the terms of the Ground Lease either by Campus Associates or Vista Development.â€‹5.Landlord Consent: Campus Associates consents to the assignment of the Ground Lease from Vista Development to Plug Power.â€‹6.Amendment: The Ground Lease shall be modified and amended as follows:â€‹a.Plug Power executed and delivered to Campus Associates XII LLC a promissory note dated even date herewith in the principal amount of THREE MILLION THREE HUNDRED NINETY THOUSAND DOLLARS AND 00/100 ($3,390,000.00) (â€œNoteâ€). A default under the Ground Lease shall be a default under the Note and a default under the Note shall be a default under the Ground Lease.â€‹b.Section 14.01 of the Ground Lease shall be deleted and replaced as follows:â€‹â€œSection 14.01. Tenant on the last date of the Term or on the last day of any earlier termination of the Term covenants to surrender and deliver the Leased Premises to the Landlord. Landlord shall have the right to determine the property and Improvements which shall be removed by Tenant at the expiration or earlier termination of the Lease. This shall not apply to building improvements if any constructed on the Land which may remain in place. Title to the Improvements is now and shall be and remain in Tenant during the Lease Term. Title to the Improvements which remain onâ€‹â€‹2â€‹the Leased Premises shall vest in the Landlord upon the expiration or earlier termination of the Lease Term.â€â€‹7.No Other Amendments. Except as otherwise expressly set forth herein, all terms and conditions of the Ground Lease shall remain unchanged and in full force and effect. This Assignment may not be changed, modified, discharged or terminated orally or in any manner other than by an agreement in writing signed by Plug Power and Campus Associates or their respective successors and permitted assigns.â€‹8.Binding on Successors. This Assignment shall be binding upon and shall inure to the benefit of the parties hereto, their heirs, executors, administrators, successors in interest and assigns.â€‹9.Recording. Neither Campus Associates nor Plug Power shall record this Assignment, but at the request of Plug Power, both Campus Associates and Plug Power shall execute a memorandum documenting the existence of the Ground Lease in the county in which the Premises is located. This memorandum shall, at a minimum contain the legal description of the Leased Premises, the names of the parties to the Ground Lease, and the duration of the Ground Lease. In the event a memorandum of lease is already recorded in the county in which the Leased Premises is located, Campus Associates and Plug Power agree to execute and record a memorandum of assignment evidencing that Campus Associates and Plug Power are the successors in interest to the Ground Lease. The cost of recording shall be borne by Plug Power.â€‹10.Title Insurance. It is understood that Plug Power may seek to obtain a leasehold title policy insuring Plug Powerâ€™s leasehold interest in the Leased Premises at its sole cost and expense. Campus Associates agrees to provide such affidavits and entity documents as may be customarily and reasonably required by any national title insurance company as selected by Plug Power, for Plug Power to obtain a leasehold policy. Campus Associates further agrees to cooperate with Plug Power to execute any title curative instruments including, but not limited to, non-disturbance agreements, containment letters, releases or any other documents Plug Power deems necessary, in its reasonable judgment, to operate the Leased Premises or to obtain a leasehold title policy that is reasonably acceptable to Plug Power.â€‹11.Governing Law. This Assignment shall be governed by and construed in accordance with the laws of the State of New York without regard to rules concerning conflicts of laws.12.Counterparts. This Assignment may be executed in several counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. For purposes of this Assignment, a document (or signature page thereto) signed and transmitted by facsimile machine, email orâ€‹â€‹3â€‹PDF document, is to be treated as an original document. The signature of any party thereon, for purposes hereof, is to be considered as an original signature, and the document transmitted is to be considered to have the same binding effect as an original signature on an original document.â€‹â€‹â€‹â€‹[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]â€‹â€‹4â€‹â€‹IN WITNESS WHEREOF, the parties have executed this Assignment as of the date written above.â€‹â€‹Campus Associates XI LLCÂ Â Â Â â€‹â€‹â€‹â€‹â€‹By: /s/ Joseph R. Nicollaâ€‹â€‹Name: Joseph R. Nicollaâ€‹â€‹Title: Authorized Representativeâ€‹â€‹â€‹â€‹Plug Power, Inc.Â Â Â Â â€‹â€‹â€‹â€‹â€‹By: /s/ Andrew Marshâ€‹â€‹Name: Andrew Marshâ€‹â€‹Title: BOD Memberâ€‹â€‹â€‹â€‹Vista Development Group LLCÂ Â Â Â â€‹â€‹â€‹â€‹â€‹By: /s/ Stephen Obermayerâ€‹â€‹Name: Stephen Obermayerâ€‹â€‹Title: Authorized Representativeâ€‹â€‹â€‹5 EX-31.1 9 plug-20240630xex31d1.htm EX-31.1 ExhibitÂ 31.1â€‹I, Andrew Marsh, certify that:â€‹1. I have reviewed this quarterly report on FormÂ 10-Q of Plug Power Inc.;â€‹2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;â€‹3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;â€‹4. The registrantâ€™s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act RulesÂ 13a-15(e)Â and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act RulesÂ 13a-15(f)Â and 15d-15(f)) for the registrant and have:â€‹(a)Â Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;â€‹(b)Â Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;â€‹(c)Â Evaluated the effectiveness of the registrantâ€™s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; andâ€‹(d)Â Disclosed in this report any change in the registrantâ€™s internal control over financial reporting that occurred during the registrantâ€™s most recent fiscal quarter (the registrantâ€™s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrantâ€™s internal control over financial reporting; andâ€‹5. The registrantâ€™s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrantâ€™s auditors and the audit committee of the registrantâ€™s board of directors (or persons performing the equivalent functions):â€‹(a)Â All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrantâ€™s ability to record, process, summarize and report financial information; andâ€‹(b)Â Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrantâ€™s internal control over financial reporting.â€‹Date: August 8, 2024â€‹â€‹â€‹â€‹â€‹â€‹â€‹by:/s/ Andrew Marshâ€‹â€‹Andrew Marshâ€‹â€‹Chief Executive Officerâ€‹â€‹ EX-31.2 10 plug-20240630xex31d2.htm EX-31.2 ExhibitÂ 31.2â€‹I, Paul B. Middleton, certify that:â€‹1. I have reviewed this quarterly report on FormÂ 10-Q of Plug Power Inc.;â€‹2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;â€‹3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;â€‹4. The registrantâ€™s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act RulesÂ 13a-15(e)Â and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act RulesÂ 13a-15(f)Â and 15d-15(f)) for the registrant and have:â€‹(a)Â Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;â€‹(b)Â Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;â€‹(c)Â Evaluated the effectiveness of the registrantâ€™s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; andâ€‹(d)Â Disclosed in this report any change in the registrantâ€™s internal control over financial reporting that occurred during the registrantâ€™s most recent fiscal quarter (the registrantâ€™s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrantâ€™s internal control over financial reporting; andâ€‹5. The registrantâ€™s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrantâ€™s auditors and the audit committee of the registrantâ€™s board of directors (or persons performing the equivalent functions):â€‹(a)Â All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrantâ€™s ability to record, process, summarize and report financial information; andâ€‹(b)Â Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrantâ€™s internal control over financial reporting.â€‹Date: August 8, 2024â€‹â€‹â€‹â€‹â€‹â€‹â€‹by:/s/ Paul B. Middletonâ€‹â€‹Paul B. Middletonâ€‹â€‹Chief Financial Officerâ€‹â€‹ EX-32.1 11 plug-20240630xex32d1.htm EX-32.1 ExhibitÂ 32.1â€‹CERTIFICATION PURSUANT TOâ€‹18 U.S.C. SECTIONÂ 1350,â€‹AS ADOPTED PURSUANT TOâ€‹SECTIONÂ 906 OF THE SARBANES-OXLEY ACT OF 2002â€‹In connection with the Quarterly Report of Plug Power Inc. (the

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(Details)link:presentationLinklink:calculationLinklink:definitionLink 99942401 - Disclosure - Subsequent Events (Details)link:presentationLinklink:calculationLinklink:definitionLink 995200505 - Statement - Condensed Consolidated Statements of Cash Flows (Parenthetical)link:presentationLinklink:calculationLinklink:definitionLink 995210301 - Disclosure - Extended Maintenance Contractslink:presentationLinklink:calculationLinklink:definitionLink 995211001 - Disclosure - Convertible Senior Noteslink:presentationLinklink:calculationLinklink:definitionLink 995211301 - Disclosure - Revenuelink:presentationLinklink:calculationLinklink:definitionLink 995211601 - Disclosure - Investmentslink:presentationLinklink:calculationLinklink:definitionLink 995211701 - Disclosure - Operating and Finance Lease Liabilitieslink:presentationLinklink:calculationLinklink:definitionLink 995211801 - Disclosure - Finance Obligationlink:presentationLinklink:calculationLinklink:definitionLink 995212101 - Disclosure - Segment and Geographic Area Reportinglink:presentationLinklink:calculationLinklink:definitionLink 995212201 - Disclosure - Related Party Transactionslink:presentationLinklink:calculationLinklink:definitionLink 995212301 - Disclosure - Restructuringlink:presentationLinklink:calculationLinklink:definitionLink 99930303 - Disclosure - Extended Maintenance Contracts (Tables)link:presentationLinklink:calculationLinklink:definitionLink 99930903 - Disclosure - Long-Term Debt (Tables)link:presentationLinklink:calculationLinklink:definitionLink 99931303 - Disclosure - Revenue (Tables)link:presentationLinklink:calculationLinklink:definitionLink 99931603 - Disclosure - Investments (Tables)link:presentationLinklink:calculationLinklink:definitionLink 99931703 - Disclosure - Operating and Finance Lease Liabilities (Tables)link:presentationLinklink:calculationLinklink:definitionLink 99931803 - Disclosure - Finance Obligation (Tables)link:presentationLinklink:calculationLinklink:definitionLink 99932103 - Disclosure - Segment and Geographic Area Reporting (Tables)link:presentationLinklink:calculationLinklink:definitionLink 99940301 - Disclosure - Extended Maintenance Contracts (Details)link:presentationLinklink:calculationLinklink:definitionLink 99941703 - Disclosure - Operating and Finance Lease Liabilities - Other information related to the operating leases (Details)link:presentationLinklink:calculationLinklink:definitionLink 99941704 - Disclosure - Operating and Finance Lease Liabilities - Other information related to the finance leases (Details)link:presentationLinklink:calculationLinklink:definitionLink EX-101.CAL 30 plug-20240630_cal.xml EX-101.CAL EX-101.DEF 31 plug-20240630_def.xml EX-101.DEF EX-101.LAB 32 plug-20240630_lab.xml EX-101.LAB Document and Entity Information: Document Information [Table] Document Information [Line Items] Document Type Document Quarterly Report Document Period End Date Document Transition Report Securities Act File Number Entity Registrant Name Entity Incorporation, State or Country Code Entity Tax Identification Number Entity Address, Address Line One Entity Address, City or Town Entity Address, State or Province Entity Address, Postal Zip Code City Area Code Local Phone Number Title of 12(b) Security Trading Symbol Security Exchange Name Entity Current Reporting Status Entity Interactive Data Current Entity Filer Category Entity Small Business Entity Emerging Growth Company Entity Shell Company Entity Common Stock, Shares Outstanding Entity Central Index Key Current Fiscal Year End Date Document Fiscal Year Focus Document Fiscal Period Focus Amendment Flag Condensed Consolidated Balance Sheets Statement [Table] Statement [Line Items]Changes in stockholders' equityStatement Assets [Abstract]Assets Assets, Current [Abstract]Current assets: Cash and Cash Equivalents, at Carrying ValueCash and cash equivalents Restricted Cash and Investments, CurrentRestricted cash Accounts Receivable, after Allowance for Credit Loss, CurrentAccounts receivable, net of allowance of $7,485 at June 30, 2024 and $8,798 at December 31, 2023 Inventory, NetInventory, netInventory Contract with Customer, Asset, after Allowance for Credit Loss, CurrentContract assets Prepaid Expense and Other Assets, CurrentPrepaid expenses and other current assets Assets, CurrentTotal current assets Restricted Cash and Investments, NoncurrentRestricted cash Property, Plant and Equipment, NetProperty, plant, and equipment, netProperty, plant, and equipment, net Finance Lease, Right-of-Use Asset, after Accumulated AmortizationRight of use assets related to finance leases, net Operating Lease, Right-of-Use AssetRight of use assets related to operating leases, net Amount, before accumulated depreciation, of lessor's underlying asset for which right to use has been conveyed to lessee under operating lease.Property, Plant, and Equipment, Lessor Asset under Operating Lease, after Accumulated DepreciationEquipment related to power purchase agreements and fuel delivered to customers, net Contract with Customer, Asset, after Allowance for Credit Loss, NoncurrentContract assets Intangible Assets, Net (Excluding Goodwill)Intangible assets, net Investments in and Advance to Affiliates, Subsidiaries, Associates, and Joint VenturesInvestments in non-consolidated entities and non-marketable equity securities Other AssetsOther assets AssetsTotal assets Liabilities and Equity [Abstract]Liabilities and Stockholders' Equity Liabilities, Current [Abstract]Current liabilities: Accounts Payable, CurrentAccounts payable Accrued Liabilities, CurrentAccrued expensesTotal Deferred Revenue, CurrentDeferred revenue and other contract liabilities Operating Lease, Liability, CurrentOperating lease liabilities Finance Lease, Liability, CurrentFinance lease liabilities Represents the amount of current portion of finance obligation in connection with the transactions involving the sale of property to another party and the lease of the property back to the seller.Financing Transaction Finance Obligation Amount CurrentCurrent portion of finance obligation in sale-leaseback transactionFinance obligations Long-Term Debt, Current MaturitiesCurrent portion of long-term debt Other Liabilities, CurrentContingent consideration, loss accrual for service contracts, and other current liabilities Liabilities, CurrentTotal current liabilities Deferred Revenue, NoncurrentDeferred revenue and other contract liabilities Operating Lease, Liability, NoncurrentOperating lease liabilities Finance Lease, Liability, NoncurrentFinance lease liabilities Represents the amount of noncurrent portion of finance obligation in connection with the transactions involving the sale of property to another party and the lease of the property back to the seller.Financing Transaction Finance Obligation Amount NoncurrentFinance obligationsNoncurrent portion of finance obligation in sale-leaseback transaction Convertible Notes Payable, NoncurrentConvertible senior notes, netNet carrying amount Amount after unamortized (discount) premium and debt issuance costs of long-term debt classified as noncurrent and excluding convertible senior notes and amounts to be repaid within one year or the normal operating cycle, if longer. Includes, but not limited to, notes payable, bonds payable, debentures, mortgage loans and commercial paper. Excludes capital lease obligations.Long-term Debt Non Current, Excluding Convertible NotesLong-term debt Other Liabilities, NoncurrentContingent consideration, loss accrual for service contracts, and other liabilities LiabilitiesTotal liabilities Equity, Attributable to Parent [Abstract]Stockholders' equity: Common Stock, Value, IssuedCommon stock, $.01 par value per share; 1,500,000,000 shares authorized; Issued (including shares in treasury): 806,993,410 at June 30, 2024 and 625,305,025 at December 31, 2023 Additional Paid in CapitalAdditional paid-in capital Accumulated Other Comprehensive Income (Loss), Net of TaxAccumulated other comprehensive loss Retained Earnings (Accumulated Deficit)Accumulated deficit Treasury Stock, Common, ValueLess common stock in treasury: 19,360,457 at June 30, 2024 and 19,169,366 at December 31, 2023 Equity, Attributable to ParentBalanceBalanceTotal stockholders' equity Liabilities and EquityTotal liabilities and stockholders' equity Accounts Receivable, Allowance for Credit LossAllowance for doubtful accounts receivable Common Stock, Par or Stated Value Per ShareCommon stock, par value (in dollars per share)Par value, common stock Common Stock, Shares AuthorizedCommon stock, shares authorized Common Stock, Shares, IssuedBalance (in shares)Balance (in shares)Common stock, shares issued Treasury Stock, Common, SharesCommon stock in treasury, shares Income Statement [Abstract] Product and Service [Axis] Product and Service [Domain] Represents the information pertaining to sales of equipment and related infrastructure.Sales of Equipment and Related Infrastructure [Member]Sales of equipment, related infrastructure and other Represents the information pertaining to Services performed on fuel cell systems and related infrastructure.Services Performed On Fuel Cell Systems And Related Infrastructure [Member]Services performed on fuel cell systems and related infrastructure Represents information pertaining to Power Purchase Agreements (PPAs), the Company signed sale/leaseback agreements with the Company's primary financial institution M & T Bank or the Bank) to facilitate its commercial transactions with key customers.Power Purchase Agreements [Member]Power purchase agreements Represents the information pertaining to fuel delivered to customers and related equipment.Fuel Delivered To Customers And Related Equipment [Member]Fuel delivered to customers and related equipment Represents the information pertaining to other product and services.Other Product And Services [Member]Other Revenues [Abstract]Net revenue: Revenue from Contract with Customer, Including Assessed TaxNet revenue RevenuesRevenuesRelated party total revenueNet revenue Cost of Revenue [Abstract]Cost of revenue: Cost of Goods and Services SoldCost of revenue Amount of expense related loan transactions, lease transactions, credit loss from transactions other than loan and lease transactions, and other loss based on assessment of uncollectible from the counterparty to reduce the account to their net realizable value.Provision for Loan, Lease, and Other LossProvision for loss contracts related to service Cost of RevenueTotal cost of revenue Gross ProfitGross loss Operating Expenses [Abstract]Operating expenses: Research and Development ExpenseResearch and development Selling, General and Administrative ExpenseSelling, general and administrative Restructuring and Related Cost, Incurred CostRestructuringRestructuring costs Amount of write-down of other current assets and long-lived assets recognized in the income statement.Impairment Of Other Current Assets And Long-Lived AssetImpairment Business Combination, Contingent Consideration Arrangements, Change in Amount of Contingent Consideration, LiabilityChange in fair value of contingent consideration Operating ExpensesTotal operating expenses Operating Income (Loss)Operating loss Represents information pertaining to nonoperating interest income.Nonoperating Interest IncomeInterest income Interest Expense, Operating and NonoperatingInterest expense Other Nonoperating Income (Expense)Other expense, net Debt Securities, Available-for-Sale, Realized Gain (Loss)Net realized loss on investmentsRealized gain on investments, net Equity Securities, FV-NI, Unrealized Gain (Loss)Change in fair value of equity securities Income (Loss) from Equity Method InvestmentsLoss on equity method investmentsLoss on equity method investments Gain (Loss) on Extinguishment of DebtLoss on extinguishment of convertible senior notesLoss on extinguishment of convertible senior notesLoss on extinguishment of debt Income (Loss) from Continuing Operations before Income Taxes, Noncontrolling InterestLoss before income taxes Income Tax Expense (Benefit)Income tax benefit Net lossNet loss Earnings Per ShareNet loss per share: Earnings Per Share, BasicNet loss per share, basic (in dollars per share) Earnings Per Share, DilutedNet loss per share, diluted (in dollars per share) Weighted Average Number of Shares Outstanding, BasicWeighted average number of common stock outstanding, basic (in shares) Weighted Average Number of Shares Outstanding, DilutedWeighted average number of common stock outstanding, diluted (in shares) Condensed Consolidated Statements of Comprehensive Loss Other Comprehensive Income (Loss), Foreign Currency Transaction and Translation Adjustment, Net of Tax, Portion Attributable to ParentForeign currency translation gain Other Comprehensive Income (Loss), Available-for-Sale Securities Adjustment, Net of Tax, Portion Attributable to ParentChange in net unrealized gain on available-for-sale securities Comprehensive Income (Loss), Net of Tax, Attributable to ParentComprehensive loss, net of tax Condensed Consolidated Statements of Stockholders' Equity Equity Components [Axis] Equity Component [Domain] Common Stock [Member]Common Stock Additional Paid-in Capital [Member]Additional Paid-in-Capital AOCI Including Portion Attributable to Noncontrolling Interest [Member]Accumulated Other Comprehensive Gain/(Loss) Treasury Stock, Common [Member]Treasury Stock Retained Earnings [Member]Accumulated Deficit Debt Instrument [Axis] Debt Instrument, Name [Domain] It represents the 5.5% convertible senior notes.Five Point Five Percent Convertible Senior Notes [Member]5.5% Convertible Senior Notes Increase (Decrease) in Stockholders' Equity [Roll Forward]Increase (Decrease) in Stockholders' Equity Other Comprehensive Income (Loss), Net of TaxOther comprehensive income (loss) Shares Issued, Value, Share-Based Payment Arrangement, after ForfeitureStock-based compensation Shares Issued, Shares, Share-Based Payment Arrangement, after ForfeitureStock-based compensation (in shares) Stock Issued During Period, Value, New IssuesPublic offerings, common stock, net of issuance costsAggregate offering price Stock Issued During Period, Shares, New IssuesNumber of shares of common stock soldPublic offerings, common stock, net of issuance costs (in shares)Common stock shares issued Stock Issued During Period, Value, Stock Options ExercisedStock option exercises Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercises in PeriodExercised (in shares)Stock option exercises (in shares) Value of stock issued as a result of the exercise of stock options and issuance of restricted stock awards.Stock Issued During Period, Value, Stock Options Exercised and Restricted Stock Award IssuanceStock option exercises and issuance of common stock upon grant/vesting of restricted stock and restricted stock unit awards Number of stock issued as a result of the exercise of stock options and issuance of restricted stock awards.Stock Issued During Period, Shares, Stock Options Exercised and Restricted Stock Award IssuanceStock option exercises and issuance of common stock upon grant/vesting of restricted stock and restricted stock unit awards (in shares) Treasury Stock, Value, Acquired, Cost MethodTreasury stock acquired from employees upon exercise of stock options and vesting of restricted stock and restricted stock unit awards Treasury Stock, Shares, AcquiredTreasury stock acquired from employees upon exercise of stock options and vesting of restricted stock and restricted stock unit awards (in shares) Value of shares issued as a result of the exercise of warrants.Stock Issued During Period Value, Exercise of WarrantsExercise of warrants Number of shares issued as a result of the exercise of warrants.Stock Issued During Period Shares Exercise of WarrantsExercise of warrants (in shares) The value of shares issued during the period for earnouts from prior acquisitions paid in stock.Shares Issued During Period, Value, Earnouts From Prior Acquisitions paid in StockPayment settled in stockEarnouts from acquisitions paid in stockEarnouts from acquisitions paid in common stock and warrants The number of shares issued during the period for earnouts from prior acquisitions paid in stock.Shares Issued During Period, Shares, Earnouts From Prior Acquisitions paid in StockEarnouts from acquisitions paid in stock (in shares) Represents the effect on equity from the issuance of warrants.Equity Provision For Common Stock WarrantsProvision for common stock warrantsProvision compared for common stock warrants Condensed Consolidated Statements of Cash Flows Net Cash Provided by (Used in) Operating Activities [Abstract]Operating activities Net Income (Loss), Including Portion Attributable to Noncontrolling InterestNet loss Adjustments to Reconcile Net Income (Loss) to Cash Provided by (Used in) Operating Activities [Abstract]Adjustments to reconcile net loss to net cash used in operating activities: DepreciationDepreciation of long-lived assets Amortization of Intangible AssetsAmortization of intangible assets Inventory Write-downLower of cost or net realizable value inventory adjustment and provision for excess and obsolete inventory Share-Based Payment Arrangement, Noncash ExpenseStock-

based compensation Accounts Receivable, Credit Loss Expense (Reversal)(Recoveries)/provision for losses on accounts receivable Amortization of Debt Issuance Costs and DiscountsAmortization of (premium)/discount of debt issuance costs on convertible senior notes and long-term debt The expense recognized in the current period that reflects the write off of unamortized warrant cost.Amortization Of Warrant CostProvision for common stock warrants Amount of current income tax expense (benefit) and deferred income tax expense (benefit) pertaining to continuing operations.Income Tax BenefitDeferred income tax (benefit)/expense Represents the provision for loss contracts related to service.(Benefit)/loss on service contractsLoss on service contractsProvision The increase or decrease in the fair value of a contingent consideration.Increase (Decrease) In Fair Value Of Contingent ConsiderationFair value adjustment to contingent consideration Investment Income, Net, Amortization of Discount and PremiumAccretion of premium on available-for-sale securities The origination costs associated with a lease.Lease Origination CostsLease origination costs Increase (Decrease) in Equity Securities, FV-NIChange in fair value for equity securities Increase (Decrease) in Operating Capital [Abstract]Changes in operating assets and liabilities that provide/(use) cash: Increase (Decrease) in Accounts ReceivableAccounts receivable Increase (Decrease) in InventoriesInventory Increase (Decrease) in Contract with Customer, AssetContract assetsNet change in contract assets Increase (Decrease) in Prepaid Expense and Other AssetsPrepaid expenses and other assets Increase (Decrease) in Accounts Payable and Accrued LiabilitiesAccounts payable, accrued expenses, and other liabilities The cash outflow associated with payments of contingent consideration during the periodPayments Of Contingent ConsiderationPayments of contingent consideration The increase (decrease) during the reporting period of a customer liability.Increase Decrease In Customer LiabilityDeferred revenue and other contract liabilities Net Cash Provided by (Used in) Operating ActivitiesNet cash used in operating activities Net Cash Provided by (Used in) Investing Activities [Abstract]Investing activities Payments to Acquire Property, Plant, and EquipmentPurchases of property, plant and equipment Payments to Acquire Equipment on LeasePurchases of equipment related to power purchase agreements and equipment related to fuel delivered to customers Proceeds from Maturities, Prepayments and Calls of Debt Securities, Available-for-SaleProceeds from maturities of available-for-sale securities Proceeds from Sale of Equity Securities, FV-NIProceeds from sales of equity securities Represents information pertaining to Cash paid for non-consolidated affiliates and non marketable equity securitiesPayments of Cash for Non-consolidated Affiliates and Non Marketable Equity SecuritiesCash paid for non-consolidated entities and non-marketable equity securities Net Cash Provided by (Used in) Investing ActivitiesNet cash (used in)/provided by investing activities Net Cash Provided by (Used in) Financing Activities [Abstract]Financing activities Payment for Contingent Consideration Liability, Financing ActivitiesPayments of contingent considerationPayments of contingent consideration Proceeds from Issuance of Common StockNet proceeds from shares of common stock soldGross proceedsProceeds from public offering, net of transaction costs Payment, Tax Withholding, Share-Based Payment ArrangementPayments of tax withholding on behalf of employees for net stock settlement of stock-based compensation Amount of cash inflow (outflow) from exercise of option under share-based payment arrangement.Proceeds (Payments) from Stock Options ExercisedProceeds from exercise of stock options Repayments of Long-Term DebtPrincipal payments on long-term debtPrincipal payments on long-term debt Proceeds from Issuance of DebtProceeds from finance obligationsNet proceeds The cash outflow for principal payment for finance obligation and finance leases.Repayments for Finance Obligations and Finance LeasesPrincipal repayments of finance obligations and finance leases Net Cash Provided by (Used in) Financing ActivitiesNet cash provided by financing activities Effect of Exchange Rate on Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents, Including Disposal Group and Discontinued OperationsEffect of exchange rate changes on cash Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents, Period Increase (Decrease), Including Exchange Rate EffectDecrease in cash and cash equivalents Amount of increase or decrease in restricted cash.Restricted Cash, Period Increase (Decrease), Total(Decrease)/increase in restricted cash Cash, Cash Equivalents, Restricted Cash, and Restricted Cash EquivalentsCash, cash equivalents, and restricted cash end of periodCash, cash equivalents, and restricted cash beginning of period Supplemental Cash Flow Information [Abstract]Supplemental disclosure of cash flow information Interest Paid, Excluding Capitalized Interest, Operating ActivitiesCash paid for interest, net of capitalized interest of $5.2 million at June 30, 2024 and $4.0 million at June 30, 2023 Noncash Investing and Financing Items [Abstract]Summary of non-cash activity Amount of recognition of right of use asset for finance leases.Recognition Of Right Of Use Asset - Finance LeasesRecognition of right of use asset - finance leases Amount of recognition of right of use asset for operating leasesRecognition Of Right Of Use Asset Operating LeasesRecognition of right of use asset - operating leases Represents the net transfers between inventory, lease assets and property, plant and equipment.Net Transfers Between Inventory Lease Assets and Property, Plant and EquipmentNet transfers between inventory and long-lived assets The amount of purchase of long lived assets from financing agreement.Purchase of Long Lived Asset from Financing AgreementPurchases of long lived asset from financing agreement Capital Expenditures Incurred but Not yet PaidAccrued purchase of fixed assets, cash to be paid in subsequent period Interest Paid, Capitalized, Investing ActivitiesNet capitalized interest n/aNature of Operations Nature of Operations [Text Block]Nature of Operations Summary of Significant Accounting Policies Basis of Presentation and Significant Accounting Policies [Text Block]Summary of Significant Accounting Policies No definition available.Extended Maintenance Contracts The entire disclosure for extended maintenance contracts.Extended Maintenance Contracts [Text Block]Extended Maintenance Contracts Earnings Per Share [Text Block]Earnings Per Share Inventory Inventory Disclosure [Text Block]Inventory Property, Plant and Equipment Property, Plant and Equipment Disclosure [Text Block]Property, Plant and Equipment Intangible Assets Intangible Assets Disclosure [Text Block]Intangible Assets Accrued Expenses Accounts Payable and Accrued Liabilities Disclosure [Text Block]Accrued Expenses Long-Term Debt. Long-Term Debt [Text Block]Long-Term Debt No definition available.Convertible Senior Notes The entire disclosure for information about Convertible Senior Notes.Convertible Senior Notes [Text Block]Convertible Senior Notes Stockholders' Equity Equity [Text Block]Stockholders' Equity No definition available.Warrant Transaction Agreements The entire disclosure for warrants and related items under the Amazon.com, Inc. and Wal Mart Stores Inc transaction agreement.Warrant Disclosure Amazon.com Inc and Wal Mart Stores Inc Transaction [Text Block]Warrant Transaction Agreements Revenue Revenue from Contract with Customer [Text Block]Revenue Income Taxes Income Tax Disclosure [Text Block]Income Taxes Fair Value Measurements Fair Value Disclosures [Text Block]Fair Value Measurements Investments Investments in Debt and Marketable Equity Securities (and Certain Trading Assets) Disclosure [Text Block]Investments Operating and Finance Lease Liabilities The entire disclosure for leases.Lease Disclosure [Text Block]Operating and Finance Lease Liabilities No definition available.Finance Obligation The entire disclosure for finance obligations.Finance Obligations [Text Block]Finance Obligation Commitments and Contingencies Commitments and Contingencies Disclosure [Text Block]Commitments and Contingencies Employee Benefit Plans Compensation and Employee Benefit Plans [Text Block]Employee Benefit Plans Segment and Geographic Area Reporting Segment Reporting Disclosure [Text Block]Segment and Geographic Area Reporting Related Party Transactions Related Party Transactions Disclosure [Text Block]Related Party Transactions Restructuring Restructuring and Related Activities Disclosure [Text Block]Restructuring Subsequent Events Subsequent Events [Text Block]Subsequent Events Consolidation, Policy [Policy Text Block]Principles of Consolidation Disclosure of the accounting policy for interim financial statements.Interim Financial Statements [Policy Text Block]Interim Financial Statements Disclosure of the accounting policy for Clean Hydrogen Production Tax Credit.Clean Hydrogen Production Tax Credit [Policy Text Block]Clean Hydrogen Production Tax Credit New Accounting Pronouncements, Policy [Policy Text Block]Recent Accounting Pronouncements Tabular disclosure for accrual for loss contract.Accrual for Loss Contracts, Rollforward [Table Text Block]Schedule of accrual for loss contracts Schedule of Antidilutive Securities Excluded from Computation of Earnings Per Share [Table Text Block]Schedule of potential dilutive common shares Schedule of Inventory, Current [Table Text Block]Schedule of inventory Property, Plant and Equipment [Table Text Block]Schedule of Property plant and equipment Schedule of Acquired Finite-Lived Intangible Assets by Major Class [Table Text Block]Schedule of Intangible assets Schedule of Finite-Lived Intangible Assets, Future Amortization Expense [Table Text Block]Schedule of future amortization of intangible assets Schedule of Accrued Liabilities [Table Text Block]Schedule of Accrued Expenses Schedule of Long-Term Debt Instruments [Table Text Block]Schedule of long term debt Schedule of Long-Term Debt Instruments [Table] Represents the 3.75% Convertible Senior Notes.Three Point Seven Five Percent Of Convertible Senior Notes [Member]3.75% Convertible Senior Notes It represents the 7.0% Convertible Senior Note.Seven Percent Convertible Senior Notes [Member]7.0% Convertible Senior Note Debt Instrument [Line Items]Long-Term DebtConvertible Senior Notes Convertible Debt [Table Text Block]Schedule of Convertible Senior Notes Schedule of Debt [Table Text Block]Schedule of debt Class of Warrant or Right [Axis] Class of Warrant or Right [Domain] Represents the information pertaining amazon transaction agreement to 2022.Amazon Transaction Agreement 2022 [Member]2022 Amazon transaction agreement Tabular disclosure of fair value assumption of warrants exercised.Schedule of Fair Value Assumption of Warrants [Table Text Block]Schedule of Fair Value Assumption of Warrants Disaggregation of Revenue [Table Text Block]Schedule of disaggregation of revenue Contract with Customer, Contract Asset, Contract Liability, and Receivable [Table Text Block]Schedule of receivables, contract assets and contract liabilities from contracts with customers Tabular disclosure of changes in contract assets and contract liabilities.Changes in Contract Assets and Contract Liabilities [Table Text Block]Schedule of changes in contract assets and the contract liabilities Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction [Table Text Block]Schedule of Estimated future revenue Schedule of Fair Value, Assets and Liabilities Measured on Recurring Basis [Table Text Block]Schedule of assets and liabilities measured at fair value on a recurring basis Fair Value Measurement Inputs and Valuation Techniques [Table Text Block]Schedule of assets and liabilities measured at fair value on a recurring basis that have unobservable inputs Tabular disclosure of the activity in the commons stock warrant liability.Schedule of Warrant Liability Activity [Table Text Block]Schedule of activity in the level 3 liabilities Equity Method Investments [Table Text Block]Summary of investments under the equity method Lessee, Operating Lease, Liability, to be Paid, Maturity [Table Text Block]Schedule of future minimum lease payments under operating leases Finance Lease, Liability, to be Paid, Maturity [Table Text Block]Schedule of future minimum lease payments under finance obligations Tabular disclosure of operating leases other information.Schedule of Operating Leases Other Information [Table Text Block]Schedule of operating leases other information Tabular disclosure of finance leases other information.Schedule of Finance Leases Other Information [Table Text Block]Schedule of finance leases other information Tabular disclosure of information pertaining to maturity schedule of finance obligation.Finance Obligation Fiscal Year Maturity Schedule [Table Text Block]Schedule of future minimum payments under finance obligations Tabular disclosure of finance obligation other information.Schedule of Finance Obligation Other Information [Table Text Block]Schedule of finance obligation other information Recorded Unconditional Purchase Obligations [Table Text Block]Schedule of unconditional purchase obligations Represents a stock option award with vesting based on length of service.Stock Options Vesting Based On Service [Member]Service Stock Options Awards Represents a stock option award with vesting based on achievement of performance conditions.Stock Options Vesting Based On Performance [Member]Performance Stock Option Awards Share-Based Payment Arrangement, Expensed and Capitalized, Amount [Table Text Block]Schedule of components and classification of stock-based compensation expense Share-Based Payment Arrangement, Option, Activity [Table Text Block]Schedule of Share-based Compensation, Stock Options, Activity Nonvested Restricted Stock Shares Activity [Table Text Block]Nonvested Restricted Stock Shares Activity Schedule of Revenue from External Customers and Long-Lived Assets, by Geographical Areas [Table Text Block]Schedule of revenue and long-lived assets based on geographic location Stock, Class of Stock [Table] Statistical Measurement [Axis] Statistical Measurement [Domain] Maximum [Member]Maximum Sale of Stock [Axis] Sale of Stock [Domain] Represents the information pertaining to ATM Agreement member.ATM Agreement [Member]ATM Agreement Represents the information pertaining to at market issuance sale agreement.At Market Issuance Sales Agreement [Member]At Market Issuance Sales Agreement Public Offerings MemberPublic Offerings [Member]Public Offerings Subsequent Event Type [Axis] Subsequent Event Type [Domain] Subsequent Event [Member]Subsequent Event Scenario [Axis] Scenario [Domain] Represents the information pertaining to the event where market capitalization is not less than $1.0 billion.If Market Capitalization is Not Less Than $1.0 billion [Member]If market capitalization is not less than $1.0 billion Represents the information pertaining to the event where market capitalization is less than $1.0 billion.If Market Capitalization is Less Than $1.0 billion [Member]If market capitalization is less Than $1.0 billion Counterparty Name [Axis] Counterparty Name [Domain] This member stands for information about R.Bailey member.R.Bailey [Member]R.Bailey Class of Stock [Line Items]Stockholders' equityLiquidity and Capital Resources The amount of working capital required for running the entity.Working Capital The amount of unrestricted cash as at the end of the reporting period.Unrestricted CashUnrestricted cash Restricted Cash, CurrentRestricted cash Shares Issued, Price Per SharePer share price of shares of common stockSales price per share The number of days given for options to purchase the additional shares for underwriter.Underwriting Agreement, Number of Days Given For Options To Purchase Additional SharesOptions given to purchase additional shares (Days) Maximum number of additional shares issued to underwriters under option.Underwriting Agreement, Maximum Number of Additional Shares Issued On Option To UnderwriterMaximum number of additional shares to be issue on option to underwriters Payments of Stock Issuance CostsStock issuance cost Amount of shares authorized for issuance.Amount of Shares Authorized for IssuanceRemaining authorized for issuance Common stock value reserved for future issuance.Common Stock Reserved For Future IssuanceCommon stock reserved for future issuance Period of ATM AgreementPeriod Of ArrangementPeriod of ATM Agreement Value of stock purchase directly from the Company on any tradingday.Maximum Commitment Advance Purchase AmountMaximum commitment advance purchase amount Value of stock purchase directly from the Company in any calendar week.Maximum Commitment Advance Purchase Amount CapMaximum commitment advance purchase amount cap Market Capitalization amount of a company.Market CapitalizationMarket capitalization Accounting Standards Update and Change in Accounting Principle [Table] New Accounting Pronouncements or Change in Accounting Principle [Line Items]Summary of Significant Accounting Policies Amount of tax credit available under Clean Hydrogen Production ("PTC").Clean Hydrogen Production, Tax CreditClean Hydrogen Production Tax Credit (PTC) recorded under other assets Loss Contingency Accrual [Roll Forward]Accrual for loss contracts Loss Contingency AccrualEnding balanceBeginning balance Loss Contingency Accrual, ProvisionProvision for loss accrual The amount of cash released to service cost of sales.Loss Contingency Accrual Payments Related to Service Cost of SalesReleases to service cost of sales The amount of cash released for provision for warrants.Loss Contingency Accrual Payments Related to Provision for WarrantsIncrease to loss accrual related to customer warrants Amount of loss contingency accrual related to foreign currency translation adjustment.Loss Contingency Accrual Related To Foreign Currency Translation AdjustmentForeign currency translation adjustment Antidilutive Security, Excluded EPS Calculation [Table] Antidilutive Securities [Axis] Antidilutive Securities, Name [Domain] Restricted Stock [Member]Restricted stock and restricted stock units outstanding Warrant [Member]Common stock warrants Convertible Notes Payable [Member]Convertible senior notesConvertible Senior Notes Represents the warrants issued with the Amazon.com, Inc. transaction agreement in April 2017.Warrant Issued With Amazon.com Inc Transaction Agreement In April 2017 [Member]2017 Amazon Transaction Agreement Represents the warrants issued with the Walmart Stores, Inc. transaction agreement in July 2017.Warrant Issued With Walmart Stores Inc

Transaction Agreement In July 2017 [Member]Warrants issued with the Walmart Stores, Inc transaction agreement Represent information pertains to warrant issued to acquire common shares as part of earn-out settlement agreement with Giner Inc.Warrant Issued With Giner Inc Earn Out Settlement Agreement In May 2024 [Member]Warrant issued with Giner Inc earn out settlement agreement Antidilutive Securities Excluded from Computation of Earnings Per Share [Line Items]Earnings Per Share Antidilutive Securities Excluded from Computation of Earnings Per Share, AmountNumber of dilutive potential shares of common stock Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, GrossOptions grantedGranted (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in PeriodGranted (in shares)Number of restricted shares granted during period Class of Warrant or Right, Number of Securities Called by Warrants or RightsShares of common stock that can be purchased from warrants issued (in shares) Number of warrants that have been exercised to date.Class Of Warrant Or Right Number Of Warrants Exercised To DateNumber of warrants exercised to date Debt Conversion, Converted Instrument, AmountAmount of debt converted Debt Instrument, Interest Rate, Stated PercentageInterest rate (as a percent) Debt Instrument, Face AmountSecured term loan amountPrincipal amount Debt Conversion, Converted Instrument, Shares IssuedConversion of notes through common stock issuance (in shares) Aggregated amount of unprocessed materials to be used in manufacturing or production process and supplies at the production location that will be consumed. This amount is net of valuation reserves and adjustments.Inventory Raw Materials and Supplies Production Locations Net of ReservesRaw materials and supplies - production locations Aggregated amount of unprocessed materials to be used in manufacturing or production process and supplies at the customer locations that will be consumed. This amount is net of valuation reserves and adjustments.Inventory Raw Materials and Supplies Customer locations Net of ReservesRaw materials and supplies - customer locations Inventory, Work in Process, Net of ReservesWork-in-process Inventory, Finished Goods, Net of ReservesFinished goods Inventory AdjustmentsReserve for excess and obsolete inventory Property, Plant and Equipment [Table] Long-Lived Tangible Asset [Axis] Long-Lived Tangible Asset [Domain] Land [Member]Land Construction in Progress [Member]Construction in progress Represents information pertaining to hydrogen production plants.Hydrogen Production Plants [Member]Hydrogen production plants Represents information pertaining to building and leasehold improvements.Buildings and Leasehold Improvements [Member]Building and leasehold improvements Purchased software applications and tangible personal property used to produce goods and services, including, but is not limited to, tools, dies and molds, computer and office equipment.Software, Machinery, And Equipment [Member]Software, machinery and equipment Property, Plant and Equipment [Line Items]Property, plant and equipment Property, Plant and Equipment, GrossProperty, plant, and equipment Accumulated Depreciation, Depletion and Amortization, Property, Plant, and EquipmentLess: accumulated depreciation The number of hydrogen production plant.Number of Hydrogen Production PlantNumber of hydrogen production plant Interest Costs CapitalizedCapitalized interest Cost, DepreciationDepreciation expense Schedule of Acquired Finite-Lived Intangible Asset by Major Class [Table] Finite-Lived Intangible Assets by Major Class [Axis] Finite-Lived Intangible Assets, Major Class Name [Domain] Technology-Based Intangible Assets [Member]Acquired Technology Represents information pertaining to Dry stack electrolyzer technology.Dry Stack Electrolyzer Technology [Member]Dry stack electrolyzer technology Represents the information pertaining to Customer relationships, Trade names, and other.Customer Relationships Trade Name Other [Member]Customer relationships, trade name and other Acquired Finite-Lived Intangible Assets [Line Items]Gross carrying amount and accumulated amortization of acquired identifiable intangible assets Acquired Finite-Lived Intangible Assets, Weighted Average Useful LifeWeighted Average Amortization Period Finite-Lived Intangible Assets, GrossGross Carrying Amount Finite-Lived Intangible Assets, Accumulated AmortizationAccumulated Amortization Finite-Lived Intangible Assets, NetTotal The aggregate expense charged against earnings to allocate the cost of intangible assets (nonphysical assets not used in production) in a systematic and rational manner to the periods expected to benefit from such assets. As a noncash expense, this element is added back to net income when calculating cash provided by or used in operations using the indirect method.Amortization Of Acquired Intangible AssetsAmortization of intangible assets Finite-Lived Intangible Assets, Net, Amortization Expense, Fiscal Year Maturity [Abstract]Estimated amortization expense Finite-Lived Intangible Asset, Expected Amortization, Remainder of Fiscal YearRemainder of 2024 Finite-Lived Intangible Asset, Expected Amortization, Year One2025 Finite-Lived Intangible Asset, Expected Amortization, Year Two2026 Finite-Lived Intangible Asset, Expected Amortization, Year Three2027 Finite-Lived Intangible Asset, Expected Amortization, Year Four2028 Amount of amortization expense for assets, excluding financial assets and goodwill, lacking physical substance with a finite life expected to be recognized during and after the fourth fiscal year following the latest fiscal year. Excludes interim and annual periods when interim periods are reported on a rolling approach, from latest balance sheet date.Finite Lived Intangible Assets Amortization Expense Year Five And After Year Five2029 and thereafter Accounts Payable and Accrued Liabilities, Current [Abstract]Accrued Expenses Accrued Salaries, CurrentAccrued payroll and compensation related costs Carrying value as of the balance sheet date of [accrued] expenses payable on capital projects that has been incurred and is unpaid. Used to reflect current portion of the liabilities (due within one year or within the normal operating cycle if longer).Accrued Expenses On Capital ProjectsAccrual for capital expenditures Carrying value as of the balance sheet date of liabilities incurred through that date and payable for accounts payable. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer).Accrued Accounts Payable, CurrentAccrued accounts payable Taxes Payable, CurrentAccrued sales and other taxes Interest Payable, CurrentAccrued interest Other Accrued Liabilities, CurrentAccrued other Long-Term Debt, Type [Axis] Long-Term Debt, Type [Domain] Secured Debt [Member]Secured term loan facility Minimum [Member]Minimum Represents information pertaining to loan and security agreement.Loan And Security Agreement [Member]Loan and security agreement Represents information pertaining to loan payable for allowance for tenant work related to manufacturing facility.Loan Payable in Relation to Allowance for Tenant Work [Member]Loan payable for allowance for tenant work Debt Instrument, Periodic PaymentPeriodic payment Long-Term Debt, TermTerm of debt Long-Term DebtLong-term borrowingsOutstanding balance Long-Term Debt, GrossCarrying amount of the liability componentTotal outstanding principalCarrying amount of debt Debt Instrument, Unamortized DiscountUnamortized debt discountUnamortized debt discount Debt Instrument, Interest Rate, Effective PercentageEffective interest rate (as a percent) Long-Term Debt, Fiscal Year Maturity [Abstract]Principal payments of long term debt Long-Term Debt, Maturity, Remainder of Fiscal YearDecember 31, 2024 Long-Term Debt, Maturity, Year OneDecember 31, 2025 Long-Term Debt, Maturity, Year TwoDecember 31, 2026 Represents the information pertaining to holder may require redemption.Holder May Require Redemption [Member]Holder may require redemption Represents the information pertaining to the company may redeem with the consent of the holder.Entity May Redeem With Consent Of Holder [Member]Company may redeem with the consent of the holder Represents the information pertaining to certain circumstances resulting in increase to conversion rate for debt instrument.Under Certain Circumstances Resulting In Increase To Conversion Rate [Member]Under certain circumstances resulting in increase to conversion rate Interest PayableAccrued and unpaid interest Debt Conversion, Original Debt, AmountConversion of debt Percentage of Premium over the last reported sale price of the Company's common stock.Percentage of PremiumPremium (as a percent) Debt Instrument, Repurchase AmountMaturity principal amount Debt Instrument, Convertible, Conversion RatioConversion rates for the notes (in shares) Debt Instrument, Convertible, Conversion PriceConversion price, per share Represents the trading days immediately preceding the date on which the Company provides notice of redemption.Debt Instrument, Trading Days Preceding Redemption NoticeRedemption notice days Debt Instrument, Convertible, Threshold Trading DaysTrading days Debt Instrument, Convertible, Threshold Consecutive Trading DaysConsecutive trading days Debt Instrument, Convertible, Threshold Percentage of Stock Price TriggerConversion price (as a percent) Equity Method Investment, Ownership PercentageOwnership interest percentageCommon Stock Ownership % Share PriceShare price (in dollars per share)Closing stock price on grant date Convertible Debt, Fair Value DisclosuresFair value of convertible senior notes Debt Instrument, Redemption Price, Percentage Debt Instrument, Unamortized PremiumUnamortized debt premium, net of offering costs Debt Issuance Costs, NetUnamortized debt issuance costs Interest Expense, DebtInterest expense Amortization of Debt Discount (Premium)Amortization of premium Amount of amortization expense attributable to debt issuance costs.Amortization Of Debt Issuance CostAmortization of debt issuance costs Interest and Debt ExpenseInterest and Debt Expense, Total Derivative [Table] Derivative Instrument [Axis] Derivative Contract [Domain] Call Option [Member]Capped Call Forward Contracts [Member]Common Stock Forward Derivative [Line Items]Capped Call and Common Stock Forward Derivative, Notional AmountCapped call options amount The amount of derivative cap price per share.Derivative, Cap Price Per shareCap price The amount of stock issuance cost.Stock Issuance CostNet cost incurred It represents the number of shares settled.Number Of Shares SettledNumber of shares settled Represents information pertaining to Morgan Stanley & Co. LLC.Morgan Stanley & Co. LLC [Member]Morgan Stanley & Co. LLC Per share or per unit amount of equity securities issued.Weighted Average Shares Issued Price Per SharePer share price of shares of common stock AOCI Attributable to Parent [Member]AOCI attributable to parent Accumulated Foreign Currency Adjustment Attributable to Parent [Member]Foreign Currency Items AOCI Attributable to Parent, Net of Tax [Roll Forward]Accumulated other comprehensive income(loss) Other Comprehensive Income (Loss), before Reclassifications, before TaxOther comprehensive loss before reclassifications Other Comprehensive Income (Loss), before Reclassifications, Net of TaxNet current-period other comprehensive income Class of Warrant or Right [Table] Represents the first tranche of warrants issued with the Amazon.com, Inc. transaction agreement in April 2017.Tranche One Of Warrant Issued With Amazon.com Inc Transaction Agreement In April 2017 [Member]Tranche one of warrants issued with the Amazon.com, Inc transaction agreement Represents the warrant issued with Amazon.com, Inc.Warrant Issued With Amazon [Member]Warrant Issued With Amazon Class of Stock [Axis] Class of Stock [Domain] Represents information pertaining to Amazon, a customer of the entityAmazon Customer [Member]Amazon Vesting [Axis] Vesting [Domain] Represents the first three tranches of warrants issued or issuable.Warrants Tranches One Through Three [Member]Warrants Tranches One Through Three Represents the information pertaining to warrant issued in Tranche one.Warrant Issued Tranche One [Member]Tranche one Represents the information pertaining to warrant issued in Tranche two.Warrant Issued Tranche Two [Member]Tranche two Represents the information pertaining to warrant issued in Tranche three.Warrant Issued Tranche Three [Member]Tranche three Represents the information pertaining to warrant issued in Tranche four.Warrant Issued Tranche Four [Member]Tranche four Share-Based Payment Arrangement, Tranche Two [Member]Share-Based Payment Arrangement, Tranche Two Measurement Input Type [Axis] Measurement Input Type [Domain] Measurement Input, Risk Free Interest Rate [Member]Risk-free interest rate Measurement Input, Price Volatility [Member]Volatility Measurement Input, Expected Term [Member]Expected average term (years) Measurement Input, Exercise Price [Member]Exercise price Measurement Input, Share Price [Member]Stock price Class of Warrant or Right [Line Items]Warrant Transaction Agreements Represent minimum percentage of warrants vested and exercisable automatically.Minimum Percentage of Warrants Vested and Exercisable AutomaticallyMinimum percentage of warrants vested and exercisable automatically Share-Based Compensation Arrangement by Share-Based Payment Award, Award Vesting PeriodVesting period Represents the cash receipts for goods and services to be received pursuant to a warrant transaction agreement.Cash Receipts For Goods And Services Warrant Transaction AgreementCash payments to be received under agreement Represents the number of warrants exercised by the warrant holders.Class of Warrant or Right ExercisedNumber of warrants exercised (in shares) Number of securities into which the class of warrant or right may be converted that have vested.Class of Warrant or Right, Number of Securities Vested by Warrants or RightsWarrant shares vested (in shares) Warrants and Rights Outstanding, Measurement InputWarrants and rights outstanding measurement input Represents the number of installments in an agreement.Number Of InstallmentsNumber of installments Number of securities into which the class of warrant or right may be converted that vest in a given installment.Class Of Warrant Or Right Number Of Securities Vested Per InstallmentNumber of shares per installment Represents the installment amount of cash receipts for goods and services needed to trigger a vesting of warrants in a warrant transaction agreement.Cash Receipt Installment Amount For Goods And ServicesCash receipt per installment Class of Warrant or Right, Exercise Price of Warrants or RightsExercise price of warrants (in dollars per share) Represents the fair value of warrants per share.Fair Value Of Warrants Per ShareFair value of warrants per share Threshold weighted average share price.Percentage of Threshold Weighted Average Share PriceWarrant percentage weighted average share price Threshold number of specified trading days that common stock price to vesting of warrants must exceed threshold percentage within a specified consecutive trading period to trigger vesting of warrants exercisable.Class Of Warrant Or Right Exercisable on Vesting Threshold Trading DaysThreshold trading days The amount of warrant charge associated with vested shares capitalized to contract assets.Warrant Charge CapitalizedWarrant charge capitalized Value of outstanding derivative securities that permit the holder the right to purchase securities (usually equity) from the issuer at a specified price.Warrants And Rights Outstanding, AssetContract asset Represents the provision for common stock warrants as a reduction of revenue.Provision For Common Stock WarrantsProvision for common stock warrants The expected average term associated with a warrant.Warrant Assumptions, Expected Average TermExpected average term (years) Represents information pertaining to walmart customer of the entity.Walmart Customer [Member]Walmart Represents the first two tranches of warrants issued or issuable.Warrants Tranches One And Two [Member] Amount of credit loss expense (reversal of expense) for common stock warrants.Equity Provision (Reversal) For Common Stock WarrantsProvision for common stock warrants Disaggregation of Revenue [Table] Represents the information pertaining to sales of fuel cell systems.Sales Of Fuel Cell Systems [Member]Sales of fuel cell systems Represents information pertaining to sale of hydrogen infrastructure.Sale Of Hydrogen Infrastructure [Member]Sales of hydrogen infrastructure Represents information pertaining to sale of Electrolyzers.Sale Of Electrolyzers [Member]Sales of electrolyzers Represents information pertaining to sales of engineered equipment.Sale Of Engineered Equipment [Member]Sales of engineered equipment Represents information pertaining to sale of cryogenic equipment.Sale Of Cryogenic Equipment [Member]Sales of cryogenic equipment and liquefiers Disaggregation of Revenue [Line Items]Disaggregation of revenueRevenue Accelerated Share Repurchases [Table] Accounts Receivable, after Allowance for Credit LossAccounts receivableOutstanding accounts receivable Contract with Customer, Asset, after Allowance for Credit LossContract assets Deferred RevenueDeferred revenue and contract liabilities Change in Contract with Customer, Asset [Abstract]Contract assets Contract with Customer, Asset, Reclassified to ReceivableTransferred to receivables from contract assets recognized at the beginning of the period Amount of increase (decrease) in right to consideration in exchange for good or service transferred to customer when right is conditioned on something other than passage of time, related to warrants.Contract with Customer, Asset, Increase (Decrease) Related To WarrantsChange in contract assets related to warrants Amount of impairment loss on an asset contract.Contract Asset, Impairment LossImpairment The amount of revenue recognized and not billed as of the end of the period.Contract with Customer Asset, Revenue Recognized and UnbilledRevenue recognized and not billed as of the end of the period Change in Contract with Customer, Liability [Abstract]Contract liabilities Amount of increase (decrease) in cash received net of amount recognized as revenue.Contract with Customer, Asset, Increase (Decrease) for Cash ReceivedIncreases due to customer billings, net of amounts recognized as revenue during

the period Amount of increase (decrease) in obligation to transfer good or service to customer for which consideration from customer has been received or is due, related to warrants.Contract with Customer, Liability, Increase (Decrease) Related To WarrantsChange in contract liabilities related to warrants Contract with Customer, Liability, Revenue RecognizedRevenue recognized that was included in the contract liability balance as of the beginning of the period Increase (Decrease) in Contract with Customer, LiabilityNet change in deferred revenue and contract liabilities Represents the information pertaining to Sale of hydrogen installations and other infrastructure.Sale Of Hydrogen Installations And Other Infrastructure [Member]Sale of hydrogen installations and other infrastructure Represents information pertaining to sale of oil and gas equipment.Sale Of Oil And Gas Equipment [Member]Sale of oil and gas equipment Period in which remaining performance obligation is expected to be recognized as revenue, in 'PnYnMnDTnHnMnS' format.Revenue Remaining Performance Obligation Expected Timing Of SatisfactionDuration of estimated revenue expected to be recognized in future (in years) Revenue, Remaining Performance Obligation, AmountTotal estimated future revenue Fair Value Measurement Inputs and Valuation Techniques [Table] Fair Value Measurement Inputs and Valuation Techniques [Line Items] Amount of transfers of assets and liabilities measured on a recurring basis in and out of Level 1, Level 2, and Level 3 of the fair value hierarchy.Fair Value, Assets And Liabilities, Transfers Between Level 1 Level 2 Level 3, AmountTransfers between Level 1, Level 2, and Level 3 Fair Value, Recurring and Nonrecurring [Table] Measurement Basis [Axis] Portion at Fair Value Measurement [Member] Reported Value Measurement [Member]Carrying value Estimate of Fair Value Measurement [Member]Fair Value Business Acquisition [Axis] Business Acquisition, Acquiree [Domain] Represents Giner ELX Inc.GinerElx Inc [Member]Giner ELX, Inc Represents United Hydrogen Group Inc member.United Hydrogen Group Inc [Member]United Hydrogen Group Inc Information pertaining to Frames Holding B.V.Frames Holding B.V. [Member]Frames Holding B.V. Represents member for Joule Processing LLC.Joule Processing LLC [Member]Joule Processing LLC Measurement Frequency [Axis] Measurement Frequency [Domain] Fair Value, Recurring [Member]Recurring basis Fair Value Hierarchy and NAV [Axis] Fair Value Hierarchy and NAV [Domain] Fair Value, Inputs, Level 3 [Member]Level 3 Liability Class [Axis] Fair Value by Liability Class [Domain] Represents the information pertaining to contingent consideration.Contingent Consideration [Member]Contingent consideration Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]Fair Value Liabilities, Fair Value DisclosureLiabilities, Fair value Business Combination, Contingent Consideration, LiabilityContingent consideration Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liability, SettlementsCash paymentsCash payments Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liability, Gain (Loss) Included in Other Comprehensive Income (Loss)Foreign currency translation adjustment The maximum number of shares authorized to resale.Maximum Number of Shares Authorized To ResaleMaximum number of shares authorized to resale Valuation Approach and Technique [Axis] Valuation Approach and Technique [Domain] Represents valuation technique relating to scenario based method.Scenario Based Method [Member]Scenario based method Measurement Input, Credit Spread [Member]Credit spread Measurement Input, Discount Rate [Member]Discount rate Business Combination, Contingent Consideration, Liability, Measurement InputContingent Consideration, measurement input Fair Value, Liabilities Measured on Recurring Basis, Unobservable Input Reconciliation [Table] Fair Value, Liabilities Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items]Fair Value Fair Value, Liabilities Measured on Recurring Basis, Unobservable Input Reconciliation, Calculation [Roll Forward]Reconciliations of the beginning and ending balances for liabilities measured at fair value on a recurring basis using significant unobservable inputs (i.e. Level 3) Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liability ValueBalance at the end of the periodBalance at the beginning of the period Fair Value, Measurement with Unobservable Inputs Reconciliation, Recurring Basis, Liability, Gain (Loss) Included in EarningsChange in fair value of contingent consideration Equity Method Investment [Table] Investment, Name [Axis] Investment, Name [Domain] Represents the information pertaining to HyVia.Hyvia [Member]HyVia Represents information pertaining to Acciona Plug S.L.Acciona Plug SL [Member]AccionaPlug S.L. Represents information pertaining to Clean H2 Infra Fund.Clean H2 Infra Fund [Member]Clean H2 Infra Fund Represents information pertaining to SK Plug Hyverse Co Ltd.Sk Plug Hyverse Co Ltd [Member]SK Plug Hyverse Schedule of Equity Method Investments [Line Items] Equity Method InvestmentsCarrying Value Payments to Acquire Equity Method InvestmentsPayments to acquire equity method investments Amount of capital commitments relating to equity method investments to be paid in remainder of current fiscal year.Equity Method Investment, Capital Commitment Due, Remainder of Fiscal YearCapital commitment to be made in remainder of 2024 Lessee, Lease, Description [Table] Lessee, Lease, Description [Line Items]Lessee, Lease, Description Lessee, Operating Lease, Term of ContractLease Term - as Lessee Operating Lease, ExpenseRental expense for all operating lease Represents the information pertaining to prepaid rent and security deposit.Prepaid Rent And Security DepositPrepaid rent and security deposit Amount of amortization expense attributable to right-of-use asset and interest expense on finance lease liability.Finance Lease, Right-of-Use Asset, Amortization and Interest ExpenseFinance lease, right-of-use asset, amortization and interest expense Finance Lease, Right-of-Use Asset, before Accumulated AmortizationRight of use assets, finance lease Finance Lease, Right-of-Use Asset, Accumulated AmortizationAccumulated amortization of right-of-use asset from finance lease Lessee, Operating Lease, Liability, to be Paid, Fiscal Year Maturity [Abstract]Future minimum lease payments under operating lease Lessee, Operating Lease, Liability, to be Paid, Remainder of Fiscal YearRemainder of 2024 Lessee, Operating Lease, Liability, to be Paid, Year One2025 Lessee, Operating Lease, Liability, to be Paid, Year Two2026 Lessee, Operating Lease, Liability, to be Paid, Year Three2027 Lessee, Operating Lease, Liability, to be Paid, Year Four2028 Amount of lessee's undiscounted obligation for lease payments for operating lease, due in fifth and after fifth fiscal year and thereafter following latest fiscal year.Lessee Operating Lease Liability Payments Due Year Five And After Year Five2029 and thereafter Lessee, Operating Lease, Liability, to be PaidTotal future minimum lease payments Lessee, Operating Lease, Liability, Undiscounted Excess AmountLess imputed interest Operating Lease, LiabilityTotal operating lease, liabilities Finance Lease, Liability, to be Paid, Fiscal Year Maturity [Abstract]Future minimum lease payments under finance leases Finance Lease, Liability, to be Paid, Remainder of Fiscal YearRemainder of 2024 Finance Lease, Liability, to be Paid, Year One2025 Finance Lease, Liability, to be Paid, Year Two2026 Finance Lease, Liability, to be Paid, Year Three2027 Finance Lease, Liability, to be Paid, Year Four2028 Amount of lessee's undiscounted obligation for lease payments for finance lease, due in fifth and after fifth fiscal year following latest fiscal year.Finance Lease, Liability, Payments, Due Year Five and after Year Five2029 and thereafter Finance Lease, Liability, to be PaidTotal future minimum lease payments Finance Lease, Liability, Undiscounted Excess AmountLess imputed interest Finance Lease, LiabilityTotal finance lease liabilities n/aFuture minimum lease payments under operating and finance leases Amount of lessee's undiscounted obligation for lease payment for operating and finance lease to be paid in next fiscal year following current fiscal year.Operating And Finance Lease Liability To Be Paid Remainder Year OneRemainder of 2024 Amount of lessee's undiscounted obligation for lease payment for operating and finance lease to be paid in first fiscal year following current fiscal year.Operating And Finance Lease Liability To Be Paid Next Twelve Months2025 Amount of lessee's undiscounted obligation for lease payment for operating and finance lease to be paid in second fiscal year following current fiscal year.Operating and Finance Lease, Liability, to be Paid, Year Two2026 Amount of lessee's undiscounted obligation for lease payment for operating and finance lease to be paid in third fiscal year following current fiscal year.Operating and Finance Lease, Liability, to be Paid, Year Three2027 Amount of lessee's undiscounted obligation for lease payment for operating and finance lease to be paid in fourth fiscal year following current fiscal year.Operating and Finance Lease, Liability, to be Paid, Year Four2028 Amount of lessee's undiscounted obligation for lease payment for operating and finance lease to be paid in Fifth and after Fifth fiscal year following current fiscal year.Operating And Finance Lease Liability To Be Paid Year Five And After Year Five2029 and thereafter Amount of lessee's undiscounted obligation for operating and finance lease payments.Operating and Finance Lease, Liability, Payment, Due, TotalTotal future minimum payments Amount of lessee's undiscounted obligation for operating and finance lease payments in excess of discounted obligation.Operating and Finance Lease Liability Undiscounted Excess AmountLess imputed interest Present value of lessee's discounted obligation for lease payments from operating and finance lease.Operating and Finance Lease, LiabilityTotal Lessee, Operating Lease, Description [Abstract]Other information of operating leases Operating Lease, PaymentsCash payments - operating cash flows (in thousands) Operating Lease, Weighted Average Remaining Lease TermWeighted average remaining lease term (in years) Operating Lease, Weighted Average Discount Rate, PercentWeighted average discount rate (as a percent) Lessee, Finance Lease, Description [Abstract]Other information Amount of operating cash outflow for on finance lease.Finance Lease Payments, Operating Cash FlowCash payments - operating cash flows (in thousands) Finance Lease, Principal PaymentsCash payments - financing cash flows (in thousands) Finance Lease, Weighted Average Remaining Lease TermWeighted average remaining lease term (in years) Finance Lease, Weighted Average Discount Rate, PercentWeighted average discount rate (as a percent) Sale Leaseback Transaction [Table] Sale Leaseback Transaction, Description [Axis] Sale Leaseback Transaction, Name [Domain] Represents information pertaining to sale of Future revenue - debt associated with certain sale/leaseback transactions.Sale And Lease Back Transaction Sale Of Future Revenue Debt [Member]Sale of Future Revenue - Debt Represents information pertaining to sale/leaseback financings.Sale And Lease Back Financing [Member]Sale/Leaseback Financings Sale Leaseback Transaction [Line Items]Finance Obligation Represents the amount of noncurrent portion of finance obligation in connection with the transactions involving the sale of property to another party and the lease of the property back to the seller.Financing Transaction Finance Obligation AmountFinance obligation under sale-leaseback transactionTotal Finance Lease, Interest ExpenseInterest on lease liabilities, finance lease No definition available.Finance Obligation, Fiscal Year Maturity [Abstract]Future minimum payments under finance obligations Amount of finance obligation to be paid in remainder of current fiscal year.Finance Obligation, Future Minimum Payments Due, Remainder Of Fiscal YearRemainder of 2024 Amount of finance obligation to be paid in next fiscal year following current fiscal year.Finance Obligation Due In Next Twelve Months2025 Amount of finance obligation to be paid in second fiscal year following current fiscal year.Finance Obligation Due In Second Year2026 Amount of finance obligation to be paid in third fiscal year following current fiscal year.Finance Obligation Due In Third Year2027 Amount of finance obligation to be paid in fourth fiscal year following current fiscal year.Finance Obligation Due In Fourth Year2028 Amount of finance obligation to be paid in fifth fiscal year and thereafter following current fiscal year.Finance Obligation Due In Fifth Year And Thereafter2029 and thereafter Amount of finance obligation to be paid.Finance Obligation, Payments DueTotal future minimum payments Amount of imputed interest pertaining to the finance obligation.Finance Obligation, Imputed InterestLess imputed interest Amount of cash outflow for principal payment on finance obligations.Finance Obligations PaymentsCash payments (in thousands) Weighted average remaining lease term for finance obligation, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days.Finance Obligations, Weighted Average Remaining TermWeighted average remaining term (in years) Weighted average discount rate for finance obligation calculated at point in time.Finance Obligations, Weighted Average Discount RateWeighted average discount rate (as a percent) Concentration Risk [Table] Concentration Risk Benchmark [Axis] Concentration Risk Benchmark [Domain] Accounts Receivable [Member]Accounts receivable Revenue from Contract with Customer Benchmark [Member]Revenues Concentration Risk Type [Axis] Concentration Risk Type [Domain] Customer Concentration Risk [Member]Customer concentration Customer [Axis] Customer [Domain] Represents information pertaining to major customers of the entity.Customers Represents information pertaining to customer one of the entity.One Customer [Member]One customer Represents the information pertaining to two customers.Two Customers [Member]Two customers Represents the information pertaining to three customers.Three Customers [Member]Three customers Restricted Cash and Cash Equivalents [Axis] Cash and Cash Equivalents [Domain] Represents information pertaining to collateral related to acquisitions.Collateral Related to Acquisitions [Member]Collateral Related to Acquisitions This member stands for Alloy Custom Products, LLC and WesMor Cryogenics, LLC.Alloy Custom Products, LLC and WesMor Cryogenics, LLC [Member]Alloy Custom Products, LLC and WesMor Cryogenics, LLC Concentration Risk [Line Items]Customer Concentration Restricted Cash and Cash EquivalentsRestricted cash Represents the value of a letter of creditLetter Of Credit.Letter of credit Information relating to letters of credit pledged as security.Letters of Credit Pledged As SecurityLetters of credit on sale/leaseback agreements Information relating to customs related letters of credit.Customs Related Letters of CreditCustoms related letters of credit Security DepositConstruction escrow The fair value of contingent consideration paid under business combination held by a third party.Business Combination, Contingent Consideration HeldConsideration held by paying agent. Restricted CashRestricted cash as collateral Cash, FDIC Insured AmountFederal depository insurance coverage Represents information to the number of customers of the entity which have concentration risk as of balance sheet date.Concentration Risk Number of CustomersNumber of customers Concentration Risk, PercentageConcentration risk (as a percent) Guarantees [Abstract]Guarantee Guarantor Obligations, Current Carrying ValueAmount of guarantee The amount of cash outflow for payments related to guarantor obligations.Payments Related to Guarantor ObligationsPayments related to guarantee Recorded Unconditional Purchase Obligation, Fiscal Year Maturity Schedule [Abstract] Recorded Unconditional Purchase Obligation, to be Paid, Remainder of Fiscal YearRemainder of 2024 Recorded Unconditional Purchase Obligation, to be Paid, Year One2025 Recorded Unconditional Purchase Obligation, to be Paid, Year Two2026 Recorded Unconditional Purchase Obligation, to be Paid, Year Three2027 Recorded Unconditional Purchase ObligationTotal Schedule of Share-Based Compensation Arrangements by Share-Based Payment Award [Table] Statement of Income Location, Balance [Axis] Statement of Income Location, Balance [Domain] Cost of Sales [Member]Cost of sales Research and Development Expense [Member]Research and development Selling, General and Administrative Expenses [Member]Selling, general and administrative Plan Name [Axis] Plan Name [Domain] Represent the information pertaining to stock incentive plan 2011 and 2021.Stock Incentive Plan 2011 And 2021 [Member]Stock Incentive Plan 2011 And 2021 Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items]Employee Benefit Plans The percentage range of performance stock options that are exercisable over a period.Percent Of Options Exercisable RangeOptions exercisable (as a percent) Defined Contribution Plan, Employer Discretionary Contribution AmountCompany's matching contributions Share-Based Payment Arrangement, ExpenseCompensation cost Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding [Roll Forward]Shares Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, NumberOptions outstanding, end balance (in shares)Options outstanding, beginning balance (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercisable, NumberOptions exercisable, ending balance (in shares)Options exercisable, beginning balance (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Nonvested, Number of SharesOptions unvested, ending balance (in shares)Options unvested, beginning balance (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Forfeitures in PeriodForfeited (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Weighted Average Exercise Price [Abstract]Weighted Average Exercise Price Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Weighted Average Exercise PriceOptions outstanding, ending balance, weighted-average exercise priceOptions outstanding, beginning balance, weighted-average exercise price Share-Based

~~Compensation Arrangement by Share-Based Payment Award, Options, Exercisable, Weighted Average Exercise PriceOptions exercisable, ending balance, weighted-average exercise priceOptions exercisable, beginning balance, weighted-average exercise price Share-Based Compensation Arrangement by Share-Based Payment Award, Option, Nonvested, Weighted Average Exercise PriceOptions unvested, ending balance, weighted-average exercise priceOptions unvested, beginning balance, weighted-average exercise price Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Grants in Period, Weighted Average Exercise PriceGranted, weighted-average exercise price Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Exercises in Period, Weighted Average Exercise PriceExercised, weighted-average exercise price Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Forfeitures in Period, Weighted Average Exercise PriceForfeited, weighted-average exercise price Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Additional Disclosures [Abstract]Stock option activity additional disclosures Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Weighted Average Remaining Contractual TermOptions outstanding, weighted-average remaining contractual term Weighted average remaining contractual term for option awards grant in period, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days.Share-based Compensation Arrangement by Share-based Payment Award, Options, Grants in Period, Weighted Average Remaining Contractual TermOptions granted, weighted-average remaining contractual term Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercisable, Weighted Average Remaining Contractual TermOptions exercisable, weighted-average remaining contractual term Weighted average remaining contractual term for non-vested options outstanding, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days.Share Based Compensation Arrangement By Share Based Payment Award Option Nonvested Weighted Average Remaining Contractual TermOptions unvested, weighted-average remaining contractual term Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Intrinsic ValueOptions outstanding, aggregate intrinsic value Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercisable, Intrinsic ValueOptions exercisable, aggregate intrinsic value Amount of difference between fair value of the underlying shares reserved for issuance and exercise price of non-vested options outstanding.Share Based Compensation Arrangement By Share Based Payment Award Option Nonvested Intrinsic ValueOptions unvested, aggregate intrinsic value Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Weighted Average Grant Date Fair ValueWeighted-average grant date fair value of options granted (per share) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Vested in Period, Fair ValueFair value of stock options that vested during the period Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Vested and Expected to Vest, Outstanding, NumberOption expected to vest (in shares) The period considered for calculation of weighted-average exercise price, at which grantee can acquire shares reserved for issuance, for fully vested and expected to vest options outstanding.Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Vested and Expected to Vest, Outstanding, Weighted Average Exercise Price Calculation PeriodUnvested stock options expected to vest period for calculation of weighted- average exercise price Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Vested and Expected to Vest, Outstanding, Weighted Average Exercise PriceUnvested stock options, weighted- average exercise price Shares Issued, Value, Share-Based Payment Arrangement, ForfeitedUnvested performance stock options forfeited Amount of expense reversal for award under share-based payment arrangement during the period.Share Based Compensation Expense ReversalNon-cash compensation expense reversals compensation cost Share-Based Payment Arrangement, Nonvested Award, Option, Cost Not yet Recognized, AmountUnrecognized compensation cost Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Vested and Expected to Vest, Outstanding, Aggregate Intrinsic ValueAggregate intrinsic value of unvested performance stock options Share-Based Payment Arrangement, Nonvested Award, Cost Not yet Recognized, Period for RecognitionPeriod for recognition Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercises in Period, Intrinsic ValueIntrinsic fair value of options exercised Represents information pertaining to restricted common units based on performance target.Restricted Common Units Based On Performance [Member]Restricted common units with performance target Share-Based Payment Arrangement, Nonvested Award, Excluding Option, Cost Not yet Recognized, AmountUnrecognized compensation cost Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Vested in Period, Fair ValueFair value of restricted stock units vested Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, NumberUnvested restricted stock and restricted stock units, end balance (in shares)Unvested restricted stock and restricted stock units, beginning balance (in shares)Outstanding balance Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Number of Shares [Roll Forward]Shares Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Vested in PeriodVested (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Forfeited in PeriodForfeited (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair Value [Abstract]Weighted Average Grant Date Fair Value Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair ValueUnvested restricted stock, end balance, weighted average grant date fair valueUnvested restricted stock, beginning balance, weighted average grant date fair value Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period, Weighted Average Grant Date Fair ValueGranted, weighted average grant date fair value Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Vested in Period, Weighted Average Grant Date Fair ValueVested, weighted average grant date fair value Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Forfeitures, Weighted Average Grant Date Fair ValueForfeited, weighted average grant date fair value Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Aggregate Intrinsic Value [Abstract]Aggregate Intrinsic Value Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Aggregate Intrinsic Value, NonvestedUnvested restricted stock, end balance, aggregate intrinsic valueUnvested restricted stock, beginning balance, aggregate intrinsic value Defined Contribution Plan [Table] Retirement Plan Name [Axis] Retirement Plan Name [Domain] Represents information pertaining to the Company's 401(k) Savings & Retirement Plan.Savings And Retirement Plan 401K [Member]Savings And Retirement Plan 401 K Title and Position [Axis] Title and Position [Domain] Person serving on the board of directors (who collectively have responsibility for governing the entity).Non Employee Director [Member]Non Employee Director Defined Contribution Plan Disclosure [Line Items]401(K) Savings & Retirement Plan Stock Issued During Period, Shares, Employee Benefit PlanCommon stock, shares issued Defined Contribution Plan, CostTotal expense (including issuance of shares) Represents the compensation.Non Employee Director Compensation AbstractNon-Employee Benefit Plan Compensation Schedule of Revenues from External Customers and Long-Lived Assets [Table] Geographical [Axis] Geographical [Domain] North America [Member]North America Europe [Member]Europe Asia [Member]Asia Represents information pertaining to other countries excluding North America.Other Countries Excluding North America [Member]Other Revenues from External Customers and Long-Lived Assets [Line Items]Segment and Geographic Area Reporting Number of Operating SegmentsNumber of operating segments Number of Reportable SegmentsNumber of reportable segments Long-Lived AssetsLong-Lived Assets Related Party Transaction [Table] Related and Nonrelated Parties [Axis] Related and Nonrelated Parties [Domain] Related Party [Member] Corporate Joint Venture [Member] Related Party Transaction [Line Items]Related Party Transactions The ownership percentage in the joint venture.Joint Venture, Ownership PercentageOwnership percentage in joint venture Restructuring Cost [Table] Restructuring Type [Axis] Type of Restructuring [Domain] Employee Severance [Member]Employee Severance One-time Termination Benefits [Member]One-time Termination Benefits Other Restructuring [Member]Other Restructuring Specific restructuring and related activities classified as other.Other Specified Restructuring [Member]Other Specified Restructuring Restructuring Cost and Reserve [Line Items] Restructuring Reserve, CurrentRestructuring costs, current Subsequent Event [Table] Subsequent Event [Line Items]Subsequent Events Represents the information pertaining to Martin Hull.Martin Hull [Member]Martin Hull Represents the information pertaining to Maureen Helmer.Maureen Helmer [Member]Maureen Helmer Represents the information pertaining to Keith Schmid.Keith Schmid [Member]Keith Schmid EX-101.PRE 33 plug-20240630_pre.xml EX-101.PRE XML 35 R1.htm IDEA: XBRL DOCUMENT~~

~~Document and Entity Information - shares~~ ~~6 Months Ended~~
~~Jun. 30, 2024~~
~~Aug. 03, 2024~~

~~Document and Entity Information: Document Type10-Q Document Quarterly Reporttrue Document Period End DateJun. 30, 2024 Document Transition Reportfalse Securities Act File Number1-34392 Entity Registrant NamePLUG POWER INC Entity Incorporation, State or Country CodeDE Entity Tax Identification Number22-3672377 Entity Address, Address Line One125 VISTA BOULEVARD Entity Address, City or TownSLINGERLANDS Entity Address, State or ProvinceNY Entity Address, Postal Zip Code12159 City Area Code518 Local Phone Number782-7700 Title of 12(b) SecurityCommon Stock, par value $.01 per share Trading SymbolPLUG Security Exchange NameNASDAQ Entity Current Reporting StatusYes Entity Interactive Data CurrentYes Entity Filer CategoryLarge Accelerated Filer Entity Small Businessfalse Entity Emerging Growth Companyfalse Entity Shell Companyfalse Entity Common Stock, Shares Outstanding 879,636,025Entity Central Index Key0001093691 Current Fiscal Year End Date--12-31 Document Fiscal Year Focus2024 Document Fiscal Period FocusQ2 Amendment Flagfalse~~

~~- Definition~~

~~Boolean flag that is true when the XBRL content amends previously-filed or accepted submission.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:dei_AmendmentFlag Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Area code of city~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:dei_CityAreaCode Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Cover page.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:dei_CoverAbstract Namespace Prefix:dei_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~End date of current fiscal year in the format --MM-DD.~~

~~+ References~~

~~No definition available.~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_CurrentFiscalYearEndDate Namespace Prefix:dei_ Data Type:xbrli:gMonthDayItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Fiscal period values are FY, Q1, Q2, and Q3. 1st, 2nd and 3rd quarter 10-Q or 10-QT statements have value Q1, Q2, and Q3 respectively, with 10-K, 10-KT or other fiscal year statements having FY.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_DocumentFiscalPeriodFocus Namespace Prefix:dei_ Data Type:dei:fiscalPeriodItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~This is focus fiscal year of the document report in YYYY format. For a 2006 annual report, which may also provide financial information from prior periods, fiscal 2006 should be given as the fiscal year focus. Example: 2006.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_DocumentFiscalYearFocus Namespace Prefix:dei_ Data Type:xbrli:gYearItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~For the EDGAR submission types of Form 8-K: the date of the report, the date of the earliest event reported; for the EDGAR submission types of Form N-1A: the filing date; for all other submission types: the end of the reporting or transition period. The format of the date is YYYY-MM-DD.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_DocumentPeriodEndDate Namespace Prefix:dei_ Data Type:xbrli:dateItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Boolean flag that is true only for a form used as an quarterly report.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Form 10-Q -Number 240 -Section 308 -Subsection a~~

~~+ Details~~
~~Name:dei_DocumentQuarterlyReport Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Boolean flag that is true only for a form used as a transition report.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Forms 10-K, 10-Q, 20-F -Number 240 -Section 13 -Subsection a-1~~

~~+ Details~~
~~Name:dei_DocumentTransitionReport Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The type of document being provided (such as 10-K, 10-Q, 485BPOS, etc). The document type is limited to the same value as the supporting SEC submission type, or the word 'Other'.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_DocumentType Namespace Prefix:dei_ Data Type:dei:submissionTypeItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Address Line 1 such as Attn, Building Name, Street Name~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressAddressLine1 Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Name of the City or Town~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressCityOrTown Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Code for the postal or zip code~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:dei_EntityAddressPostalZipCode Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Name of the state or province.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityAddressStateOrProvince Namespace Prefix:dei_ Data Type:dei:stateOrProvinceItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~A unique 10-digit SEC-issued value to identify entities that have filed disclosures with the SEC. It is commonly abbreviated as CIK.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntityCentralIndexKey Namespace Prefix:dei_ Data Type:dei:centralIndexKeyItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Indicate number of shares or other units outstanding of each of registrant's classes of capital or common stock or other ownership interests, if and as stated on cover of related periodic report. Where multiple classes or units exist define each class/interest by adding class of stock items such as Common Class A [Member], Common Class B [Member] or Partnership Interest [Member] onto the Instrument [Domain] of the Entity Listings, Instrument.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityCommonStockSharesOutstanding Namespace Prefix:dei_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Indicate 'Yes' or 'No' whether registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. This information should be based on the registrant's current or most recent filing containing the related disclosure.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityCurrentReportingStatus Namespace Prefix:dei_ Data Type:dei:yesNoItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Indicate if registrant meets the emerging growth company criteria.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntityEmergingGrowthCompany Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Commission file number. The field allows up to 17 characters. The prefix may contain 1-3 digits, the sequence number may contain 1-8 digits, the optional suffix may contain 1-4 characters, and the fields are separated with a hyphen.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityFileNumber Namespace Prefix:dei_ Data Type:dei:fileNumberItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Indicate whether the registrant is one of the following: Large Accelerated Filer, Accelerated Filer, Non-accelerated Filer. Definitions of these categories are stated in Rule 12b-2 of the Exchange Act. This information should be based on the registrant's current or most recent filing containing the related disclosure.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntityFilerCategory Namespace Prefix:dei_ Data Type:dei:filerCategoryItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Two-character EDGAR code representing the state or country of incorporation.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_EntityIncorporationStateCountryCode Namespace Prefix:dei_ Data Type:dei:edgarStateCountryItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Boolean flag that is true when the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during~~

~~the preceding 12 months (or for such shorter period that the registrant was required to submit such files).~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-T -Number 232 -Section 405~~

~~+ Details~~
~~Name:dei_EntityInteractiveDataCurrent Namespace Prefix:dei_ Data Type:dei:yesNoItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The exact name of the entity filing the report as specified in its charter, which is required by forms filed with the SEC.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntityRegistrantName Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Boolean flag that is true when the registrant is a shell company as defined in Rule 12b-2 of the Exchange Act.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntityShellCompany Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Indicates that the company is a Smaller Reporting Company (SRC).~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntitySmallBusiness Namespace Prefix:dei_ Data Type:xbrli:booleanItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~The Tax Identification Number (TIN), also known as an Employer Identification Number (EIN), is a unique 9-digit value assigned by the IRS.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2~~

~~+ Details~~
~~Name:dei_EntityTaxIdentificationNumber Namespace Prefix:dei_ Data Type:dei:employerIdItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Local phone number for entity.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~
~~Name:dei_LocalPhoneNumber Namespace Prefix:dei_ Data Type:xbrli:normalizedStringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Title of a 12(b) registered security.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b~~

~~+ Details~~
~~Name:dei_Security12bTitle Namespace Prefix:dei_ Data Type:dei:securityTitleItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Name of the Exchange on which a security is registered.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection d1-1~~

~~+ Details~~

~~Name:dei_SecurityExchangeName Namespace Prefix:dei_ Data Type:dei:edgarExchangeCodeItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Trading symbol of an instrument as listed on an exchange.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:dei_TradingSymbol Namespace Prefix:dei_ Data Type:dei:tradingSymbolItemType Balance Type:na Period Type:duration XML 36 R2.htm IDEA: XBRL DOCUMENT~~
~~Condensed Consolidated Balance Sheets - USD ($) $ in ThousandsJun. 30, 2024Dec. 31, 2023Current assets: Cash and cash equivalents$ 62,359$ 135,033Restricted cash 222,847216,552Accounts receivable, net of allowance of $7,485 at June 30, 2024 and $8,798 at December 31, 2023189,863243,811Inventory, net939,534961,253Contract assets132,900126,248Prepaid expenses and other current assets124,919104,068Total current assets1,672,4221,786,965Restricted cash733,700817,559Property, plant, and equipment, net1,509,6931,436,177Right of use assets related to finance leases, net54,73557,281Right of use assets related to operating leases, net376,106399,969Equipment related to power purchase agreements and fuel delivered to customers, net117,335111,261Contract assets29,53129,741Intangible assets, net178,338188,886Investments in non-consolidated entities and non-marketable equity securities96,81463,783Other assets11,17911,116Total assets4,779,8534,902,738Current liabilities: Accounts payable 253,715257,828Accrued expenses112,612200,544Deferred revenue and other contract liabilities174,828204,139Operating lease liabilities66,40563,691Finance lease liabilities10,1599,441Finance obligations85,64284,031Current portion of long-term debt3,0302,716Contingent consideration, loss accrual for service contracts, and other current liabilities103,223142,410Total current liabilities809,614964,800Deferred revenue and other contract liabilities71,01884,163Operating lease liabilities264,251292,002 Finance lease liabilities30,57336,133Finance obligations245,011284,363Convertible senior notes, net208,576195,264Long-term debt2,4001,209Contingent consideration, loss accrual for service contracts, and other liabilities159,830146,679Total liabilities1,791,2732,004,613Stockholders' equity: Common stock, $.01 par value per share; 1,500,000,000 shares authorized; Issued (including shares in treasury): 806,993,410 at June 30, 2024 and 625,305,025 at December 31, 20238,0706,254Additional paid-in capital8,137,1827,494,685Accumulated other comprehensive loss(1,949)(6,802)Accumulated deficit(5,047,853)(4,489,744)Less common stock in treasury: 19,360,457 at June 30, 2024 and 19,169,366 at December 31, 2023(106,870)(106,268)Total stockholders' equity2,988,5802,898,125Total liabilities and stockholders' equity$ 4,779,853~~

~~$ 4,902,738~~

~~- Definition~~

~~Represents the amount of current portion of finance obligation in connection with the transactions involving the sale of property to another party and the lease of the property back to the seller.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:plug_FinancingTransactionFinanceObligationAmountCurrent Namespace Prefix:plug_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Represents the amount of noncurrent portion of finance obligation in connection with the transactions involving the sale of property to another party and the lease of the property back to the seller.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:plug_FinancingTransactionFinanceObligationAmountNoncurrent Namespace Prefix:plug_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount after unamortized (discount) premium and debt issuance costs of long-term debt classified as noncurrent and excluding convertible senior notes and amounts to be repaid within one year or the normal operating cycle, if longer. Includes, but not limited to, notes payable, bonds payable, debentures, mortgage loans and commercial paper. Excludes capital lease obligations.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:plug_LongTermDebtNonCurrentExcludingConvertibleNotes Namespace Prefix:plug_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount, before accumulated depreciation, of lessor's underlying asset for which right to use has been conveyed to lessee under operating lease.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:plug_PropertyPlantAndEquipmentLessorAssetUnderOperatingLeaseAfterAccumulatedDepreciation Namespace Prefix:plug_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Carrying value as of the balance sheet date of liabilities incurred (and for which invoices have typically been received) and payable to vendors for goods and services received that are used in an entity's business. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer).~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(19)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10~~

~~+ Details~~

~~Name:us-gaap_AccountsPayableCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount, after allowance for credit loss, of right to consideration from customer for product sold and service rendered in normal course of business, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481990/310-10-45-2~~

~~+ Details~~

~~Name:us-gaap_AccountsReceivableNetCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Carrying value as of the balance sheet date of obligations incurred and payable, pertaining to costs that are statutory in nature, are incurred on contractual obligations, or accumulate over time and for which invoices have not yet been received or will not be rendered. Examples include taxes, interest, rent and utilities. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer).~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_AccruedLiabilitiesCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount, after tax, of accumulated increase (decrease) in equity from transaction and other event and circumstance from nonowner source.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 220 -SubTopic 10 -Section 45 -Paragraph 14A -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-14AReference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 11 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-11Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (h)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)(a)(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(23)(a)(3)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 220 -SubTopic 10 -Section 45 -Paragraph 14 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-14~~

~~***+ Details***~~

~~***Name:us-gaap_AccumulatedOtherComprehensiveIncomeLossNetOfTax Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type: instant***~~

~~***- Definition***~~

~~***Amount of excess of issue price over par or stated value of stock and from other transaction involving stock or stockholder. Includes, but is not limited to, additional paid-in capital (APIC) for common and preferred stock.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)(a)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_AdditionalPaidInCapital Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of asset recognized for present right to economic benefit.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 49 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-49Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 12: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 13: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(12)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 18: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 19: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 30: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(11)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1***~~

~~+ Details~~

~~Name:us-gaap_Assets Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of asset recognized for present right to economic benefit, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 6: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 10: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 20: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7~~

~~***+ Details***~~
~~***Name:us-gaap_AssetsCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- References***~~

~~***No definition available.***~~

~~***+ Details***~~
~~***Name:us-gaap_AssetsCurrentAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration***~~

~~***- Definition***~~

~~***Amount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4***~~

~~***+ Details***~~

~~***Name:us-gaap_CashAndCashEquivalentsAtCarryingValue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Aggregate par or stated value of issued nonredeemable common stock (or common stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another section within stockholders' equity.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_CommonStockValue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Amount, after allowance for credit loss, of right to consideration in exchange for good or service transferred to customer when right is conditioned on something other than passage of time, classified as current.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479837/606-10-45-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479837/606-10-45-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-8***~~

~~***+ Details***~~

~~***Name:us-gaap_ContractWithCustomerAssetNetCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant***~~

~~***- Definition***~~

~~***Amount, after allowance for credit loss, of right to consideration in exchange for good or service transferred to customer when right is conditioned on something other than passage of time, classified as noncurrent.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479837/606-10-45-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards***~~

~~Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479837/606-10-45-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-8~~

~~+ Details~~

~~Name:us-gaap_ContractWithCustomerAssetNetNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Carrying value as of the balance sheet date of long-term debt (with maturities initially due after one year or beyond the operating cycle if longer) identified as Convertible Notes Payable, excluding current portion. Convertible Notes Payable is a written promise to pay a note which can be exchanged for a specified amount of another, related security, at the option of the issuer and the holder.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)) -SubTopic 10 -Topic 210 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_ConvertibleLongTermNotesPayable Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of deferred income and obligation to transfer product and service to customer for which consideration has been received or is receivable, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_DeferredRevenueCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of deferred income and obligation to transfer product and service to customer for which consideration has been received or is receivable, classified as noncurrent.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(26)(c)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_DeferredRevenueNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from finance lease, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~
~~Name:us-gaap_FinanceLeaseLiabilityCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from finance lease, classified as noncurrent.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~
~~Name:us-gaap_FinanceLeaseLiabilityNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount, after accumulated amortization, of right-of-use asset from finance lease.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~
~~Name:us-gaap_FinanceLeaseRightOfUseAsset Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Sum of the carrying amounts of all intangible assets, excluding goodwill, as of the balance sheet date, net of accumulated amortization and impairment charges.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 350 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482665/350-30-50-2Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 350 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482665/350-30-50-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 350 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482686/350-30-45-1~~

~~+ Details~~
~~Name:us-gaap_IntangibleAssetsNetExcludingGoodwill Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount after valuation and LIFO reserves of inventory expected to be sold, or consumed within one year or operating cycle, if longer.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~*+ Details*~~

~~*Name:us-gaap_InventoryNet Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant*~~

~~*- Definition*~~

~~*Amount of investment in equity method investee and investment in and advance to affiliate.*~~

~~*+ References*~~

~~*Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1*~~

~~*+ Details*~~

~~*Name:us-gaap_InvestmentsInAffiliatesSubsidiariesAssociatesAndJointVentures Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant*~~

~~*- Definition*~~

~~*Amount of liability recognized for present obligation requiring transfer or otherwise providing economic benefit to others.*~~

~~*+ References*~~

~~*Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)) -SubTopic 10 -Topic 210 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(24)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 6: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(26)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(21)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 15: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(14)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 18: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 27: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 28: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 29: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30*~~

~~***+ Details***~~

~~***Name:us-gaap_Liabilities Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Amount of liabilities and equity items, including the portion of equity attributable to noncontrolling interests, if any.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 6: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(32)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_LiabilitiesAndStockholdersEquity Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant***~~

~~***- Definition***~~

~~***Total obligations incurred as part of normal operations that are expected to be paid during the following twelve months or within one business cycle, if longer.***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(21)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 8: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-5Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 20: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 21: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7***~~

~~+ Details~~
~~Name:us-gaap_LiabilitiesCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_LiabilitiesCurrentAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt classified as current. Excludes lease obligation.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_LongTermDebtCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from operating lease, classified as current.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~
~~Name:us-gaap_OperatingLeaseLiabilityCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Present value of lessee's discounted obligation for lease payments from operating lease, classified as noncurrent.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~
~~Name:us-gaap_OperatingLeaseLiabilityNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of lessee's right to use underlying asset under operating lease.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1~~

~~+ Details~~

~~Name:us-gaap_OperatingLeaseRightOfUseAsset Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of assets classified as other.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 49 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-49Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(10)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(10)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_OtherAssets Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount of liabilities classified as other, due within one year or the normal operating cycle, if longer.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10~~

~~+ Details~~

~~Name:us-gaap_OtherLiabilitiesCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of liabilities classified as other, due after one year or the normal operating cycle, if longer.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-~~

~~02(24)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_OtherLiabilitiesNoncurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of asset related to consideration paid in advance for costs that provide economic benefits in future periods, and amount of other assets that are expected to be realized or consumed within one year or the normal operating cycle, if longer.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~

~~Name:us-gaap_PrepaidExpenseAndOtherAssetsCurrent Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~Amount after accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business to produce goods and services and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 360 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-7AReference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 360 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478451/942-360-50-1~~

~~+ Details~~

~~Name:us-gaap_PropertyPlantAndEquipmentNet Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant~~

~~- Definition~~

~~The current cash, cash equivalents and investments that are restricted as to withdrawal or usage. Restrictions may include legally restricted deposits held as compensating balances against short-term borrowing arrangements, contracts entered into with others, or entity statements of intention with regard to particular deposits; however, time deposits and short-term certificates of deposit are not generally included in legally restricted deposits. Excludes compensating balance arrangements that are not agreements which legally restrict the use of cash amounts shown on the balance sheet. Includes current cash equivalents and investments that are similarly restricted as to withdrawal, usage or disposal.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 954 -SubTopic 210 -Name Accounting Standards Codification -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477220/954-210-45-4Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 954 -SubTopic 210 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI~~

~~*https://asc.fasb.org/1943274/2147478600/954-210-50-2*~~

~~*+ Details*~~

~~*Name:us-gaap_RestrictedCashAndInvestmentsCurrent*~~ ~~*Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant*~~

~~*- Definition*~~

~~*The noncurrent cash, cash equivalents and investments that is restricted as to withdrawal or usage. Restrictions may include legally restricted deposits held as compensating balances against borrowing arrangements, contracts entered into with others, or entity statements of intention with regard to particular deposits classified as long-term; that is not expected to be released from such existing restrictions within one year of the balance sheet date or operating cycle, whichever is longer. Excludes compensating balance arrangements that are not agreements which legally restrict the use of cash amounts shown on the balance sheet. Includes noncurrent cash equivalents and investments that are similarly restricted as to withdrawal, usage or disposal.*~~

~~*+ References*~~

~~*Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 954 -SubTopic 210 -Name Accounting Standards Codification -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477220/954-210-45-4Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 954 -SubTopic 210 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478600/954-210-50-2*~~

~~*+ Details*~~

~~*Name:us-gaap_RestrictedCashAndInvestmentsNoncurrent*~~ ~~*Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant*~~

~~*- Definition*~~

~~*Amount of accumulated undistributed earnings (deficit).*~~

~~*+ References*~~

~~*Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)(a)(3)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (h)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480990/946-20-50-11Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(23)(a)(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1*~~

~~+ Details~~

~~Name:us-gaap_RetainedEarningsAccumulatedDeficit Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Amount of equity (deficit) attributable to parent. Excludes temporary equity and equity attributable to noncontrolling interest.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(31)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 8: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 12: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 13: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 14: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 4.E) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480418/310-10-S99-2~~

~~+ Details~~

~~Name:us-gaap_StockholdersEquity Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- References~~

~~No definition available.~~

~~+ Details~~

~~Name:us-gaap_StockholdersEquityAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount allocated to previously issued common shares repurchased by the issuing entity and held in treasury.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 505 -SubTopic 30 -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481520/505-30-50-4Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 505 -SubTopic 30 -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481549/505-30-45-1~~

~~+ Details~~
~~Name:us-gaap_TreasuryStockCommonValue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:instant XML 37 R3.htm IDEA: XBRL DOCUMENT~~
~~Condensed Consolidated Balance Sheets (Parenthetical) - USD ($) $ in ThousandsJun. 30, 2024Dec. 31, 2023Condensed Consolidated Balance Sheets Allowance for doubtful accounts receivable$ 7,485$ 8,798Common stock, par value (in dollars per share)$ 0.01$ 0.01Common stock, shares authorized1,500,000,0001,500,000,000Common stock, shares issued806,993,410625,305,025Common stock in treasury, shares19,360,45719,169,366~~
~~- Definition~~

~~Amount of allowance for credit loss on accounts receivable.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 326 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479344/326-20-45-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481962/310-10-50-4Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 326 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479319/326-20-50-13Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 326 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479319/326-20-50-13~~

~~+ Details~~
~~Name:us-gaap_AllowanceForDoubtfulAccountsReceivable Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:instant~~

~~- Definition~~

~~Face amount or stated value per share of common stock.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_CommonStockParOrStatedValuePerShare Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~The maximum number of common shares permitted to be issued by an entity's charter and bylaws.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1~~

~~+ Details~~
~~Name:us-gaap_CommonStockSharesAuthorized Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- Definition~~

~~Total number of common shares of an entity that have been sold or granted to shareholders (includes common shares that were issued, repurchased and remain in the treasury). These shares represent capital invested by the firm's shareholders and owners, and may be all or only a portion of the number of shares authorized. Shares issued include shares outstanding and shares held in the treasury.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1~~

~~+ Details~~
~~Name:us-gaap_CommonStockSharesIssued Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant~~

~~- References~~

~~No definition available.~~

~~+ Details~~
~~Name:us-gaap_StatementOfFinancialPositionAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Number of previously issued common shares repurchased by the issuing entity and held in treasury.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 505 -SubTopic 30 -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481549/505-30-45-1~~

~~+ Details~~
~~Name:us-gaap_TreasuryStockCommonShares Namespace Prefix:us-gaap_ Data Type:xbrli:sharesItemType Balance Type:na Period Type:instant XML 38 R4.htm IDEA: XBRL DOCUMENT~~
~~Condensed Consolidated Statements of Operations - USD ($) $ in Thousands3 Months Ended6 Months Ended~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Jun. 30, 2024~~
~~Jun. 30, 2023~~
~~Net revenue: Net revenue$ 143,350$ 260,182$ 263,614$ 470,468Cost of revenue: Provision for loss contracts related to service16,4847,33132,22914,220Total cost of~~

~~revenue274,605338,325553,944618,007Gross loss(131,255)(78,143)(290,330)(147,539)Operating expenses: Research and development18,94029,25144,22055,786Selling, general and administrative85,144101,154163,103205,170Restructuring1,629 7,640 Impairment3,9379,9864,22111,069Change in fair value of contingent consideration3,768 15,308(5,432)24,077Total operating expenses113,418155,699213,752296,102Operating loss(244,673)(233,842)(504,082)(443,641)Interest income7,79516,39117,07234,023 Interest expense(9,511)(11,265)(20,836)(21,915)Other expense, net(9,080)(5,082)(16,076)(9,853)Realized gain on investments, net 264 263Change in fair value of equity securities 3,842 8,917Loss on equity method investments(7,240)(7,623)(20,353)(12,940)Loss on extinguishment of convertible senior notes (14,047) Loss before income taxes(262,709)(237,315)(558,322)(445,146)Income tax benefit3769172132,187Net loss$ (262,333)$ (236,398)$ (558,109)$ (442,959)Net loss per share: Net loss per share, basic (in dollars per share)$ (0.36)$ (0.40)$ (0.81)$ (0.75)Net loss per share, diluted (in dollars per share)$ (0.36)$ (0.40)$ (0.81)$ (0.75)Weighted average number of common stock outstanding, basic (in shares)736,848,684598,053,390688,900,904593,653,720Weighted average number of common stock outstanding, diluted (in shares) 736,848,684598,053,390688,900,904593,653,720Sales of equipment, related infrastructure and other Net revenue: Net revenue$ 76,788$ 216,286$ 145,083$ 398,380Cost of revenue: Cost of revenue129,911187,408265,036345,728Services performed on fuel cell systems and related infrastructure Net revenue: Net revenue13,0348,701 26,05717,798Cost of revenue: Cost of revenue13,73023,44926,68735,670Power purchase agreements Net revenue: Net revenue19,67416,13037,97824,067Cost of revenue: Cost of revenue54,31253,976109,540100,792Fuel delivered to customers and related equipment Net revenue: Net revenue29,88717,87848,17328,020Cost of revenue: Cost of revenue58,31764,450116,890118,951Other Net revenue: Net revenue3,9671,1876,3232,203Cost of revenue: Cost of revenue$ 1,851$ 1,711$ 3,562 $ 2,646~~

~~- Definition~~

~~Amount of write-down of other current assets and long-lived assets recognized in the income statement.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:plug_ImpairmentOfOtherCurrentAssetsAndLongLivedAsset Namespace Prefix:plug_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Represents information pertaining to nonoperating interest income.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:plug_NonoperatingInterestIncome Namespace Prefix:plug_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Amount of expense related loan transactions, lease transactions, credit loss from transactions other than loan and lease transactions, and other loss based on assessment of uncollectible from the counterparty to reduce the account to their net realizable value.~~

~~+ References~~

~~No definition available.~~

~~+ Details~~

~~Name:plug_ProvisionForLoanLeaseAndOtherLoss Namespace Prefix:plug_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~Amount of increase (decrease) in the value of a contingent consideration liability, including, but not limited to, differences arising upon settlement.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479581/805-30-50-4~~

~~+ Details~~

~~Name:us-gaap_BusinessCombinationContingentConsiderationArrangementsChangeInAmountOfContingentConsiderationLiability1 Namespace Prefix:us-gaap_ Data Type: xbrli:monetaryItemType Balance Type:debit Period Type:duration~~

~~- Definition~~

~~The aggregate costs related to goods produced and sold and services rendered by an entity during the reporting period. This excludes costs incurred during the reporting period related to financial services rendered and other revenue generating activities.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(2)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(2)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1~~

~~***+ Details***~~

~~***Name:us-gaap_CostOfGoodsAndServicesSold Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration***~~

~~***- Definition***~~

~~***The aggregate cost of goods produced and sold and services rendered during the reporting period.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 7: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1B***~~

~~*+ Details*~~

~~*Name:us-gaap_CostOfRevenue Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration*~~

~~*- References*~~

~~*No definition available.*~~

~~*+ Details*~~

~~*Name:us-gaap_CostOfRevenueAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration*~~

~~*- Definition*~~

~~*Amount of realized gain (loss) on investment in debt security measured at fair value with change in fair value recognized in other comprehensive income (available-for-sale).*~~

~~*+ References*~~

~~*Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-9*~~

~~*+ Details*~~

~~*Name:us-gaap_DebtSecuritiesAvailableForSaleRealizedGainLoss Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration*~~

~~*- References*~~

~~*No definition available.*~~

~~*+ Details*~~

~~*Name:us-gaap_EarningsPerShareAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration*~~

~~*- Definition*~~

~~*The amount of net income (loss) for the period per each share of common stock or unit outstanding during the reporting period.*~~

~~*+ References*~~

~~*Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 52 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-52Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 15 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-15Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (e)(4) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-7Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-2Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-10Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(27)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-7*~~

~~***+ Details***~~

~~***Name:us-gaap_EarningsPerShareBasic Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:duration***~~

~~***- Definition***~~

~~***The amount of net income (loss) for the period available to each share of common stock or common unit outstanding during the reporting period and to each share or unit that would have been outstanding assuming the issuance of common shares or units for all dilutive potential common shares or units outstanding during the reporting period.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 52 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-52Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 15 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-15Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (e)(4) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-7Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-2Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(27)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-7***~~

~~+ Details~~

~~Name:us-gaap_EarningsPerShareDiluted~~ ~~Namespace Prefix:us-gaap_ Data Type:dtr-types:perShareItemType Balance Type:na Period Type:duration~~

~~- Definition~~

~~Amount of unrealized gain (loss) on investment in equity security measured at fair value with change in fair value recognized in net income (FV-NI).~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(3)(d)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 321 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479536/321-10-50-4~~

~~+ Details~~

~~Name:us-gaap_EquitySecuritiesFvNiUnrealizedGainLoss Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Difference between the fair value of payments made and the carrying amount of debt which is extinguished prior to maturity.~~

~~+ References~~

~~Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 470 -SubTopic 50 -Section 40 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481303/470-50-40-2Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 470 -SubTopic 50 -Section 40 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481303/470-50-40-4~~

~~+ Details~~

~~Name:us-gaap_GainsLossesOnExtinguishmentOfDebt Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Aggregate revenue less cost of goods and services sold or operating expenses directly attributable to the revenue generation activity.~~

~~+ References~~

~~Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 6: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 7: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 9: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name 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~~+ Details~~

~~Name:us-gaap_GrossProfit~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~***Amount of income (loss) from continuing operations, including income (loss) from equity method investments, before deduction of income tax expense (benefit), and income (loss) attributable to noncontrolling interest.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 6: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 7: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(11)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 9: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 31 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-31Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 235 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-05(b)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477314/942-235-S99-1Reference 11: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(10)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 12: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(15)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_IncomeLossFromContinuingOperationsBeforeIncomeTaxesExtraordinaryItemsNoncontrollingInterest Namespace Prefix:us-gaap_ Data Type: xbrli:monetaryItemType Balance Type:credit Period Type:duration***~~

~~***- Definition***~~

~~***Amount of income (loss) for proportionate share of equity method investee's income (loss).***~~

~~***+ References***~~

~~***Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(10)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481664/323-10-45-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(12)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(13)(f)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1***~~

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~~***Name:us-gaap_IncomeLossFromEquityMethodInvestments Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration***~~

~~***- Definition***~~

~~***Amount of current income tax expense (benefit) and deferred income tax expense (benefit) pertaining to continuing operations.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-12Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 231 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482663/740-10-55-231Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 6.I.7) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479360/740-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-10Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (h) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Subparagraph (a) -SubTopic 20 -Topic 740 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482659/740-20-45-2Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(h)) -SubTopic 10 -Topic 235 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1***~~

~~***+ Details***~~

~~***Name:us-gaap_IncomeTaxExpenseBenefit Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration***~~

~~***- Definition***~~

~~***Amount of interest expense classified as operating and nonoperating. Includes, but is not limited to, cost of borrowing accounted for as interest expense.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 49 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-49Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-24Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 835 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483013/835-20-50-1***~~

~~***+ Details***~~

~~***Name:us-gaap_InterestExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration***~~

~~***- Definition***~~

~~***The portion of profit or loss for the period, net of income taxes, which is attributable to the parent.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 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-Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1***~~

~~+ Details~~

~~Name:us-gaap_NetIncomeLoss~~ ~~Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration~~

~~- Definition~~

~~Generally recurring costs associated with normal operations except for the portion of these expenses which can be clearly related to production and included in cost of sales~~

~~*or services. Includes selling, general and administrative expense.*~~

~~*+ References*~~

~~*No definition available.*~~

~~*+ Details*~~

~~*Name:us-gaap_OperatingExpenses Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration*~~

~~*- References*~~

~~*No definition available.*~~

~~*+ Details*~~

~~*Name:us-gaap_OperatingExpensesAbstract Namespace Prefix:us-gaap_ Data Type:xbrli:stringItemType Balance Type:na Period Type:duration*~~

~~*- Definition*~~

~~*The net result for the period of deducting operating expenses from operating revenues.*~~

~~*+ References*~~

~~*Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 31 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-31*~~

~~*+ Details*~~

~~*Name:us-gaap_OperatingIncomeLoss Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration*~~

~~*- Definition*~~

~~*Amount of income (expense) related to nonoperating activities, classified as other.*~~

~~*+ References*~~

~~*Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2*~~

~~***+ Details***~~

~~***Name:us-gaap_OtherNonoperatingIncomeExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:credit Period Type:duration***~~

~~***- Definition***~~

~~***Amount of expense for research and development. Includes, but is not limited to, cost for computer software product to be sold, leased, or otherwise marketed and writeoff of research and development assets acquired in transaction other than business combination or joint venture formation or both. Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 985 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481283/985-20-50-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 730 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482916/730-10-50-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 912 -SubTopic 730 -Name Accounting Standards Codification -Section 25 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479532/912-730-25-1***~~

~~***+ Details***~~

~~***Name:us-gaap_ResearchAndDevelopmentExpense Namespace Prefix:us-gaap_ Data Type:xbrli:monetaryItemType Balance Type:debit Period Type:duration***~~

~~***- Definition***~~

~~***Discloses the amount charged against the accrued restructuring reserves, or earnings if not previously accrued, during the period for the specified type of restructuring cost.***~~

~~***+ References***~~

~~***Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 420 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 5.P.4.d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479823/420-10-S99-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 420 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 5.P.4.b.1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479823/420-10-S99-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 420 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482017/420-10-50-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 420 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482017/420-10-50-1***~~