

Document UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM 6-K REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934 For the month of December, 2024 Commission File No. 001-40387 THE LION ELECTRIC COMPANY (Translation of registrant's name into English) 921 chemin de la Rivière-du-Nord Saint-Jacques (Québec) J7Y 5G2 (Address of principal executive office) Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F. Form 20-F ☐ Form 40-F ☐ Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐ Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐ EXHIBIT INDEX Exhibit Number Description of Exhibit 99.1 News Release dated December 17, 2024 SIGNATURES Pursuant to the requirements of the Exchange Act, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized. THE LION ELECTRIC COMPANY Date: December 17, 2024 By: /s/ Dominique Perron Name: Dominique Perron Title: Chief Legal Officer and Corporate Secretary Document LION ELECTRIC ANNOUNCES EXPIRY OF COVENANT RELIEF PERIOD AND DEFAULTS UNDER CERTAIN OF ITS SENIOR DEBT INSTRUMENTS ☐ Company to initiate restructuring proceedings under the CCAAMONTREAL, QUEBEC - December 17, 2024 ☐ The Lion Electric Company (NYSE: LEV) (TSX: LEV) (the "Lion" or the "Company"), a leading manufacturer of all-electric medium and heavy-duty urban vehicles, announced today the expiry of the previously announced covenant relief period under its senior revolving credit agreement entered into with a syndicate of lenders represented by National Bank of Canada, as administrative agent and collateral agent, and including Bank of Montreal and Federation des Caisses Desjardins du Québec (the "Revolving Credit Agreement"), as well as the maturity of the Company's loan agreement entered into with Finalta Capital Fund, L.P., as lender and administrative agent, and Caisse de dépôt et placement du Québec (through one of its subsidiaries), as lender (the "Finalta CDPQ Loan Agreement"). The Company had previously announced on December 1, 2024 amendments to the Revolving Credit Agreement and the Finalta CDPQ Loan Agreement in order to extend the covenant relief period and the maturity date of the Finalta CDPQ Loan Agreement to December 16, 2024, which provided the Company with additional time to continue to actively evaluate potential alternatives relating to a restructuring of its obligations, a sale of the business or certain of its assets, strategic investments and/or any other alternatives. As no such alternatives have materialized and no further amendments, concessions or waivers have been obtained, the expiry of the covenant relief period and re-introduction of the financial covenants previously applicable under the Revolving Credit Agreement as well as the maturity of the Finalta CDPQ Loan Agreement on December 16, 2024 result in the Company being in default pursuant to the terms of the Revolving Credit Agreement, the Finalta CDPQ Loan Agreement and other debt instruments providing for cross-default or cross acceleration provisions, and in the Company's lenders having the ability to exercise their rights and request immediate repayment of amounts borrowed by the Company. As a result of the foregoing, the Company is currently in discussions with its senior lenders to obtain additional funds pursuant to a new debtor-in-possession credit facility and expects to seek creditor protection under the Companies' Creditors Arrangement Act in order to restructure its business and financial affairs and pursue a formal sales and investment solicitation process in respect of the Company's business or assets. Trading in the common shares and other listed securities of the Company on the Toronto Stock Exchange ("TSX") and the New York Stock Exchange (the "NYSE") has been halted and it is anticipated that the trading thereof will continue to be halted until a review is undertaken by the TSX and the NYSE regarding the suitability of the Company for listing on the TSX and the NYSE. ABOUT LION ELECTRIC Lion Electric is an innovative manufacturer of zero-emission vehicles, including all-electric school buses. Lion is a North American leader in electric transportation and designs, builds and assembles many of its vehicles' components, including chassis, battery packs, truck cabins and bus bodies. Page 1 Always actively seeking new and reliable technologies, Lion vehicles have unique features that are specifically adapted to its users and their everyday needs. Lion believes that transitioning to all-electric vehicles will lead to major improvements in our society, environment and overall quality of life. Lion shares are traded on the New York Stock Exchange and the Toronto Stock Exchange under the symbol LEV. CAUTION REGARDING FORWARD-LOOKING STATEMENTS This press release contains "forward-looking information" and "forward-looking statements" within the meaning of applicable securities laws and within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively, "forward-looking statements"), including statements regarding the Company's discussions with its senior lenders, a new debtor-in-possession credit facility, the Company's expectations that it will seek creditor protection under the Companies' Creditors Arrangement Act, trading in the Company's common shares and other listed securities, statements about Lion's beliefs and expectations and other statements that are not statements of historical facts. Forward-looking statements may be identified by the use of words such as "believe," "may," "will," "continue," "anticipate," "intend," "expect," "should," "would," "could," "plan," "project," "potential," "seem," "seek," "future," "target" or other similar expressions and any other statements that predict or indicate future events or trends or that are not statements of historical matters, although not all forward-looking statements may contain such identifying words. The forward-looking statements contained in this press release are based on a number of estimates and assumptions that Lion believes are reasonable when made. Such estimates and assumptions are made by Lion in light of the experience of management and their perception of historical trends, current conditions and expected future developments, as well as other factors believed to be appropriate and reasonable in the circumstances. However, there can be no assurance that such estimates and assumptions will prove to be correct. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. For additional information on estimates, assumptions, risks and uncertainties underlying certain of the forward-looking statements made in this press release, please consult section 23.0 entitled "Risk Factors" of the Company's annual management's discussion and analysis of financial condition and results of operations (MD&A) for the fiscal year 2023 and in other documents filed with the applicable Canadian regulatory securities authorities and the Securities and Exchange Commission, including the Company's interim MD&As. Many of these risks are beyond Lion's management's ability to control or predict. All forward-looking statements attributable to Lion or persons acting on its behalf are expressly qualified in their entirety by the cautionary statements contained and risk factors identified in the Company's annual MD&A for the fiscal year 2023 and in other documents filed with the applicable Canadian regulatory securities authorities and the Securities and Exchange Commission. Because of these risks, uncertainties and assumptions, readers should not place undue reliance on these forward-looking statements. Furthermore, forward-looking statements speak only as of the date they are made. Except as required under applicable securities laws, Lion undertakes no obligation, and expressly disclaims any duty, to update, revise or review any forward-looking

information, whether as a result of new information, future events or otherwise. See section 2.0 of the Company's interim MD&A for the three and nine months ended September 30, 2024 (the "Interim MD&A"), entitled "Basis of Presentation," section 15.0 of the Company's Interim MD&A entitled "Liquidity and Capital Resources," and note 2 of the Company's unaudited condensed interim consolidated financial statements for the three and nine months ended September 30, 2024 which indicate the existence of material uncertainty that may cast significant doubt on the Company's ability to continue as a going concern. Page 2 For further information: MEDIA / INVESTORS Patrick Gervais Vice President, Marketing, Communications & Public Affairs patrick.gervais@thelionelectric.com 514-992-1060 Page 3