

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 January 2025 Commission File Number: 001-40569 Standard Lithium Ltd. (Translation of registrant's name into English) Suite 1625, 1075 West Georgia Street Vancouver, British Columbia, Canada V6E 3C9 (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 [X] On January 16, 2025, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference. (c) Exhibit 99.1. Press release dated January 16, 2025 SIGNATURES Pursuant to the 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. Standard Lithium Ltd. (Registrant) Date: January 16, 2025 /s/ David Park David Park Director & CEO Edgar Filing EXHIBIT 99.1 Standard Lithium and Equinor Finalize \$225 Million Grant from the U.S. Department of Energy for the South West Arkansas Project LEWISVILLE, Ark., Jan. 16, 2025 (GLOBE NEWSWIRE) -- Standard Lithium Ltd. (TSXV:SLI) (NYSE:A:SLI), a leading near-commercial lithium developer, and Equinor, a global energy leader, today announced that its jointly-owned U.S. subsidiary, SWA Lithium LLC, has closed the US\$225 million grant from the U.S. Department of Energy's (DOE) Office of Manufacturing & Energy Supply Chains. The grant will support construction of Phase 1 of the South West Arkansas (SWA) project. Closing of the DOE grant is a testament to the caliber of the South West Arkansas project, said David Park, CEO and Director of Standard Lithium. SWA is one of the highest-grade lithium brine projects in North America, and through the use of DLE technology, a near-term, sustainable opportunity to help secure America's domestic lithium supply chain. The U.S. Department of Energy's support demonstrates the project's maturity and strengthens its financial robustness as we work towards a final investment decision. We look forward to working with Standard Lithium and alongside the local community to enhance the US lithium supply chain by deploying innovative technology, says Hege Skryseth, Executive Vice President for Technology, Digital & Innovation in Equinor. The SWA project is expected to be one of the world's first commercial-scale Direct Lithium Extraction (DLE) facilities. The project, located in Lafayette and Columbia Counties, Arkansas, is expected to produce 45,000 tonnes per annum of lithium carbonate, developed in two phases of 22,500 tonnes each. It is being developed in partnership with global energy leader Equinor, with ownership shared at 55% by Standard Lithium and 45% by Equinor. A Definitive Feasibility Study and Front-End Engineering Design for the Project are currently underway. The partnership is targeting a Final Investment Decision (FID) by the end of 2025 with Phase 1 production commencing as soon as 2028. As part of receiving the grant, the Project is subject to the National Environmental Policy Act (NEPA) and will require completion of an Environmental Assessment (EA). The Company expects to complete the EA this year, prior to reaching FID. More information, including the opportunity for public comment and review, will be shared as the process progresses beginning in 2025. David Park stated, "We're committed to ensuring this project is a win for the Lewisville and southwest Arkansas communities. For us that means adding approximately 100 direct, long-term jobs and 300 construction jobs, with a commitment to hire at least 40% of the operations workforce locally. Additionally, this Project will further benefit the local community through infrastructure improvements, healthcare initiatives, educational partnerships, and workforce development programs. About Standard Lithium Ltd. Standard Lithium is a leading near-commercial lithium development company focused on the sustainable development of a portfolio of large, high-grade lithium-brine properties in the United States. The Company prioritizes projects characterized by the highest quality resources, robust infrastructure, skilled labor, and streamlined permitting. Standard Lithium aims to achieve sustainable, commercial-scale lithium production via the application of a scalable and fully integrated Direct Lithium Extraction (DLE) and purification process. The Company's flagship projects are located in the Smackover Formation, a world-class lithium brine asset, focused in Arkansas and Texas. In partnership with global energy leader Equinor ASA, Standard Lithium is advancing the South West Arkansas project, a greenfield project located in southern Arkansas, and actively exploring promising lithium brine prospects in East Texas. Additionally, the Company is advancing the Phase 1A project in partnership with LANXESS Corporation, a brownfield development project located in southern Arkansas. Standard Lithium also holds an interest in certain mineral leases in the Mojave Desert in San Bernardino County, California. Standard Lithium trades on both the TSX Venture Exchange and the NYSE American under the symbol SLI; and on the Frankfurt Stock Exchange under the symbol S5L. Please visit the Company's website at www.standardlithium.com. About Equinor Equinor is an international energy company committed to long-term value creation in a low-carbon future. Equinor's portfolio of projects encompasses oil and gas, renewables and low-carbon solutions, with an ambition of becoming a net-zero energy company by 2050. Headquartered in Norway, Equinor is the leading operator on the Norwegian continental shelf and is present in around 30 countries worldwide. Our partnership with Standard Lithium to mature DLE projects builds on our broad US energy portfolio of oil and gas, offshore wind, low carbon solutions and battery storage projects. For more information on Equinor in the US, please visit: Equinor in the US - Equinor Qualified Person Steve Ross, P.Geol., a qualified person as defined by National Instrument 43-101 "Standards of Disclosure for mineral projects, and Vice President Resource Development for Standard Lithium, has reviewed and approved the relevant scientific and technical information in this news release. Media Contacts: Chris Lang Standard Lithium Ltd. investors@standardlithium.com Ola Morten Aanestad Equinor oaan@equinor.com Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release. This news release may contain certain "Forward-Looking Statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. When used in this news release, the words "anticipate", "believe", "estimate", "expect", "target", "plan", "forecast", "may", "schedule" and other similar words or expressions identify forward-looking statements or information. These forward-looking statements or information may relate to intended development timelines, future prices of commodities, accuracy of mineral or resource exploration activity, reserves or resources, regulatory or government requirements or approvals, the reliability of third party information, continued access to mineral properties or infrastructure, fluctuations in the market for lithium and its derivatives, changes in exploration costs and government regulation in Canada and the United States, and other factors or information. Such statements represent the Company's current views with respect to future events and are necessarily based upon a number of assumptions and estimates that, while considered reasonable by the Company, are inherently subject to significant business, economic, competitive, political and social risks, contingencies and uncertainties. Many factors, both known and unknown, could cause results, performance or

achievements to be materially different from the results, performance or achievements that are or may be expressed or implied by such forward-looking statements. The Company does not intend, and does not assume any obligation, to update these forward-looking statements or information to reflect changes in assumptions or changes in circumstances or any other events affecting such statements and information other than as required by applicable laws, rules and regulations.