Piedmont Lithium Releases Bankable Feasibility Study for Carolina Lithium Project

14.12.2021 | Business Wire

Results confirm improved economics, industry-low operating costs profile, with higher confidence level

BANKABLE FEASIBILITY STUDY HIGHLIGHTS

- NPV (after tax) of US$2.0 billion and post-tax IRR of 27%
- Assumes a fixed price of $18,000/t for battery quality lithium hydroxide versus current spot price of >$30,000/t
- BFS estimates annual steady-state EBITDA of $459 million over the first 10 years of operations
- Steady-state LiOH cash costs projected to be $3,657/t for the first 10 years among the lowest in the world
- Estimate accuracy improved between June and December 2021 from ±35% to ±15%.
- Superior sustainability profile relative to current lithium hydroxide producers in China and South America with respect to water, land use and carbon intensity
- Continue to work with local, state, and federal authorities on permitting and rezoning applications
- Full Report: https://piedmontlithium.com/piedmont-completes-bankable-feasiblity-study-of-the-carolina-lithium-project-with-pos

Piedmont Lithium Inc., ("Piedmont" or the "Company") (NASDAQ: PLL; ASX: PLL), a leading developer of lithium hydroxide production to enable the North American electric vehicle supply chain, is pleased to report the results of a Bankable Feasibility Study ("BFS") for its 100% owned proposed integrated lithium hydroxide business ("Carolina Lithium" or the "Project") in Gaston County, North Carolina. The Study confirms that Carolina Lithium has the location, mineral resources, and operational advantages to be one of the world's largest and lowest-cost producers of lithium hydroxide, with a sustainability footprint that is superior to incumbent producers, all in a highly strategic location to supply the rapidly growing electric vehicle supply chain in the United States. Current and forecasted battery manufacturing capacity now exceeds 500 GWh with public announcements of over $25bb in capital investments to occur in the U.S. by 2025. Based on an average requirement of 960t of lithium hydroxide per GWh of manufacturing capacity, the resultant U.S. demand for lithium hydroxide could exceed 460,000 t/y by 2027.

"Our unique, strategic location, innovative new processing technology, and integrated approach to producing battery-grade lithium hydroxide, have once again proven to offer a wide range of potential advantages to prospective customers, shareholders, and the community," said Piedmont President and CEO, Keith Phillips. "It's gratifying to have the opportunity to build a business that has the potential to make a significant impact on decarbonization, while also offering economic opportunity to members of the community and our shareholders. It's becoming more apparent that electrification demands regionalization, and this latest BFS confirms the advantages we have to offer a U.S.-based EV supply chain through the fully-integrated, sustainable production of lithium hydroxide from spodumene, and the continuity of supply we will be able to deliver while reducing our reliance on China and other countries."

The Study reflects more conservative costing assumptions than prior studies, with recent inflationary pressures having a substantial impact on both capital expenditures and operating costs. These cost impacts are partially offset using lithium pricing assumptions based on the more positive outlook incorporated in the consensus estimates described in the full report which can be found at here. The BFS assumes a fixed price of $18,000/t for battery quality lithium hydroxide, versus current spot prices exceeding $30,000/t.

The lithium hydroxide plant is assumed to operate for 30 years, with 2.0 Mt of SC6 delivered from Carolina Lithium's concentrate operations from years 1-11 and 3.9 Mt of SC6 delivered from third party spodumene concentrate purchases from years 12-30, resulting in a total production target of approximately 883,000 t of battery quality lithium hydroxide, averaging approximately 29,400 t/y of lithium hydroxide over the 30-year production life.

The Company's Bankable Feasibility Study ("BFS") is based on the Mineral Resource estimate reported in

October 2021, of 44.2 Mt at a grade of 1.08% Li_2O and the by-product Mineral Resource estimates comprising 7.4 Mt of quartz, 11.1 Mt of feldspar and 1.1 Mt of mica reported in June 2021. This announcement is intended to alert investors to the conversion of 18.3 million metric tons of previously categorized spodumene Mineral Resources (undiluted basis) to Probable Ore Reserves and to report the results of the technical study of the production of battery grade lithium hydroxide from these Ore Reserves and other sources. The BFS represents a significant advancement in project definition compared with the Company's previously announced Scoping Study update announced in June 2021. Estimate accuracy has been improved between June and December 2021 from ±35% to ±15%.

The Company submitted a N.C. State Mining Permit application on August 31, 2021. The Company has received additional information requests in connection with the mine permit application and is preparing a written response. Carolina Lithium remains subject to local rezoning and permit requirements. Piedmont remains in pre-application consultation with Gaston County currently. A rezoning application will follow receipt of mine and air permits. The Company will apply for a special use permit required by Gaston County upon completion of the rezoning process.

About Piedmont Lithium

Piedmont Lithium is developing a world-class, multi-asset, integrated lithium business focused on enabling the transition to a net zero world and the creation of a clean energy economy in North America. The centerpiece of our operations, located in the renowned Carolina Tin Spodumene Belt of North Carolina, when combined with equally strategic and in-demand mineral resources, and production assets in Quebec, and Ghana, positions us to be one of the largest, lowest cost, most sustainable producers of battery-grade lithium hydroxide in the world. We will also be strategically located to best serve the fast-growing North American electric vehicle supply chain. The unique geology, geography and proximity of our resources, production operations and customer base, will allow us to deliver valuable continuity of supply of a high-quality, sustainably produced lithium hydroxide from spodumene concentrate, preferred by most EV manufacturers. Our planned diversified operations should enable us to play a pivotal role in supporting America's move toward decarbonization and the electrification of transportation and energy storage. As a member of organizations like the International Responsible Mining Association, and the Zero Emissions Transportation Association, we are committed to protecting and preserving our planet for future generations, and to making economic and social contributions to the communities we serve. For more information, www.piedmontlithium.com.

Contact

Keith Phillips, President & CEO
T: +1 973 809 0505
E: kphillips@piedmontlithium.com

Brian Risinger
VP - Investor Relations and Corporate Communications
T: +1 704 910 9688
E: brisinger@piedmontlithium.com