LEXI Announces Commencement of Full-Scale Engineering for MRT Lithium Plant

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TORONTO, March 22, 2018 (GLOBE NEWSWIRE) -- Lithium Energi Exploration Inc. (TSXV:LEXI) (“LEXI” or the “Company”) is pleased to announce that it has fulfilled all financial obligations with respect to its previously announced agreement (the “Agreement”) with IBC Advanced Technologies, Inc. of American Fork, Utah, USA (“IBC”). IBC has commenced the development of full-scale engineering for a processing plant to utilize IBC’s proprietary metals separation technology, known as Molecular Recognition Technology (“MRT”), for selective lithium extraction at LEXI’s properties in Catamarca, Argentina. MRT has been proven as one of the most advanced and eco-friendly refining technologies in the world for segregating metals with up to 99.99% purity. With IBC’s collaboration, LEXI has conceived an MRT plant that will be “unit-driven” (i.e. engineering will be designed for a scalable, modular plant) with an initial configuration of 1,000 tons per year (TPY) of lithium carbonate equivalent (LCE) devised to facilitate scale-up to 25,000 TPY of LCE.

In addition, Lexi will have the exclusive right of first refusal to obtain site license(s) to use MRT for the separation, recovery, refining and purification of lithium from brine prospects in territories comprising approx. 20,000 square kilometers (7,500 square miles) in two areas of Catamarca Province, specifically including all areas in and around the salars of Antofalla, Hombre Muerto, and Pipanaco.

Commenting on the milestone event, LEXI’s CEO, Steven Howard noted, “The commencement of plant engineering could not be more timely for us. LEXI recently announced that it had initiated geophysical field studies with a goal of starting drill testing later this year. With that in mind, we believe that IBC’s engineering will be completed around the same time that LEXI achieves its first resource estimates.” Howard added that “IBC’s chemical engineering team is world class, LEXI’s team is adroit and diligent, and we’ve all got a very exciting year in front of us.”

IBC’s President, Steven Izatt stated, “We believe in LEXI’s team and in the geologic values under their well-placed, extensive property package. Furthermore, IBC will participate in the future profits from the lithium plant, so we have an enormous vested interest in seeing this project to completion on schedule and with excellence. MRT is innovative green chemistry that we believe will play a big role in the inevitable global changes that are immediately ahead of us now.”

IBC’s engineering tasks will include basic engineering specifications and drawings, process design and throughput calculations, brine testing and SuperLig® selections for LEXI’s lithium processing plant. In the initial phase of the engineering, IBC will develop a “Level One Assessment” over the next three months to identify the most suitable IBC SuperLig® products and processes to be used to extract, separate, recover, refine and purify lithium from the brine. In conjunction with the Level One Assessment, LEXI and IBC will collaborate to identify the chemical composition of candidate brines representative of actual brine from one or more salars at or near LEXI’s properties. The Level One Assessment will consist of a thorough review of IBC’s proprietary database of IBC ligand selectivities, the thermodynamic and kinetic properties of IBC’s products and processes, and an evaluation of engineering metrics.

During successive phases of engineering development, actual brine samples will be provided for IBC to test and confirm the Level One Assessment (“Test Work”). Test Work will optimize brine dissolution and solution characteristics by implementing flow/separation tests as brine is passed through mechanical columns containing IBC’s proprietary SuperLig® products. Loading and eluting cycles will yield critical kinetic and thermodynamic data, including separation coefficients and process efficiencies.

Level One Assessment data and Test Work will yield flowsheet (“Flowsheet”) designs detailing

each unit operation, its sequential placement relative to other plant operations, its respective inputs and outputs, and the key engineering metrics, including materials of construction, flowrates, temperatures, pressures, and chemical compositions. The completion of engineering will give LEXI full design drawings, equipment specifications, tank, pump, and column sizes, feed preparation, process flow and block diagrams, instrumentation and final piping arrays, sequential step descriptions for all input/output changes, all valve diagrams, and a complete operating manual.

All process engineering will be coordinated with LEXI’s expectations and requirements regarding field development, including drilling parameters, well spacing, pumping rates, and other characteristics critical to production from the salar basins in which LEXI’s lithium properties are situated. Although some factors are outside the control of IBC or LEXI, the engineering is generally expected to be complete in 12 months or less.

About Lithium Energi Exploration, Inc.

Lithium Energi Exploration Inc. is an exploration company specializing in the strategic acquisition, exploration and development of lithium brine assets in Argentina. The Company is headquartered in Toronto, Ontario and has offices in Dallas, Texas and Catamarca, Argentina. The common shares of the Company are listed on the TSX Venture Exchange (TSXV:LEXI) and the Frankfort Exchange (FR:LO9). The Company’s portfolio of prospective lithium brine concessions in the Argentina Province of Catamarca (heart of the lithium triangle) includes 90,244 hectares in and around the Antofalla Salar and a first right of refusal to acquire another 148,839 hectares, of which 110,380 hectares are located in the Antofalla Salar complex and 38,459 hectares are in the Pipanaco Salar approx. 50 km due west of Catamarca city. The Antofalla Salar complex hosts one of the largest basins in the region – over 130 km long and up to 20 km across. On September 12, 2016, Albemarle Corporation, the world’s largest producer of lithium, announced its acquisition of exclusive exploration and acquisition rights to a claim block located in the center section of this salar. In March 2017, Albemarle published its belief that the Antofalla Salar is the third largest lithium deposit in the world. With rights to over 200,000 hectares of prospective lithium properties located just west of FMC’s producing properties and offset north and south of Albemarle’s properties, the Company believes that its claim package holds the potential to deliver impressive values to its shareholders as the properties are developed.

Qualified Person

The scientific and technical information contained in this news release has been reviewed and approved by Caitlin Jeffs, P.Geo., a consultant of the Company, and a qualified person as defined by National Instrument 43-101.

ON BEHALF OF THE BOARD OF DIRECTORS

“Chris Hobbs”

Chris Hobbs,
Chief Financial Officer and Director

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