DENVER, Oct. 11, 2017 (GLOBE NEWSWIRE) -- Pure Energy Minerals Ltd. (TSX VENTURE:PE) (OTCQB:PEMIF) (the “Company” or “Pure Energy”) is pleased to announce that it has executed a non-binding memorandum of understanding (“MOU”) with Tenova Advanced Technologies Ltd. (“TAT”), TAKRAF USA, INC. (together, “Tenova”) and their Technology Partners to design, build, and operate a pilot plant to demonstrate the viability of the lithium brine extraction and processing technologies developed and patented by TAT (the “Tenova Process”). After the recent positive preliminary economic assessment (“PEA”), the pilot plant is the next major step along the path to develop Pure Energy’s Clayton Valley lithium brine project (the “CV Project”) in Nevada, USA as the world’s most efficient and environmentally friendly lithium production facility.

The MOU contemplates the construction of a test facility in Nevada that would be built at a significantly larger scale than the Company’s successful mini-pilot plant that ran various tests at TAT’s facility in Israel in 2016. The plant will be designed, engineered and built with the combined expertise, technology, and equipment of Tenova and its Technology Partners: SUEZ Water Technologies & Solutions, a business unit of SUEZ Group, NORAM Engineering and Constructors Ltd., and Solvay S.A. The parties to the MOU have agreed that Tenova and its Technology Partners intend to contribute value in various forms to the successful construction and operation of the pilot plant that may include in-kind services, in-kind supply of equipment, financial contributions (cash, deferred payment arrangements or discounts) and other contributions.

Patrick Highsmith, President and CEO of Pure Energy, stated “*We are delighted to move forward with Tenova and its leading-edge partners to develop a first-of-its-kind pilot plant for modern lithium production. Without the long production cycles and environmental impact of evaporation ponds and with recovery rates far exceeding conventional brine operations, the Tenova Process could become a better, faster, and greener path to battery-grade lithium hydroxide production. The commitment to success and value contributions of these great organizations to the CV Project has already been evident in the recently released PEA and preliminary engineering work on the pilot plant. Their willingness to work together as a team and to have their own skin-in-the-game to progress our project to the pilot plant stage is exciting and confidence-building.*”

“We are very pleased to move to the next commercialization step of Tenova Advanced Technologies’ game-changing lithium recovery process consisting of LiP™, LiSX™ and LiEL™. Together with Pure Energy Minerals and our Technology Partners, we will demonstrate the Tenova process in a continuous pilot scale plant, which will provide us with the required data for building the commercial Clayton Valley lithium plant,” commented Amir Yanai, TAT’s General Manager for the lithium business unit.

William Heins, Executive, Global Market Development of SUEZ Water Technologies & Solutions said, *“SUEZ is excited to work with Tenova and Pure Energy to demonstrate our innovative technologies for the lithium market. These technologies offer producers an environmentally cleaner and more economical solution to lithium production.”*

Key objectives of the pilot plant will include, but not be limited to:

- Confirm the effectiveness of the Tenova Process for the CV Project through continuous operation;
- Achieve a significant scaling up from previous work;
- Provide the data to support engineering and design of a large scale commercial plant;
- Derive the operational data on consumables, costs, and efficiency necessary for a feasibility study; and
- Produce samples of high purity lithium hydroxide monohydrate for potential customers.

Specific details of the scope of the engagement, value contributions, etc. will be incorporated into a Professional Services Agreement(s) to be negotiated and executed by the parties in due course.

The pilot plant is expected to take up to 12 months to design and permit. Construction and operation would span another 12 months, depending in part on how many potential customers need product from the plant. The overall cost for design, construction, and operation of the pilot plant is expected to be up to US$15 million.

Quality Assurance

Patrick Highsmith, Certified Professional Geologist (AIPG CPG # 11702), is a qualified person as defined by NI 43-101 and has reviewed and approved the scientific and technical information contained in this news release. Mr. Highsmith is not independent of the Company as he is an officer and director.

About TAT and TAKRAF USA, Inc.

TAT, recently integrated into TAKRAF, offers differentiated, project-specific process technologies based on decades of research, equipment design and project execution. Advanced solutions include solvent extraction (SX) for hydrometallurgical and bio processing, electrowinning (EW), membrane circuits, in-house state-of-the-art R&D facilities, expertise in minerals beneficiation and in phosphate processing from ore to purified phosphoric acid and salts.

TAKRAF USA is the US office (based in Denver, CO) of global mining, bulk material handling, minerals processing and

beneficiation specialist provider, TAKRAF. The company boasts significant experience that dates back more than a century and encompasses numerous countries and commodities. TAKRAF’s systems and equipment have proved robust and reliable across a wide-variety of applications in adverse geological conditions, extreme climates, dust, wind, extreme humidity, high altitude and even underground environments. Further information can be found at www.takraf.com.

TAKRAF itself is a proud Tenova Group company. Tenova is a worldwide partner for innovative, reliable solutions in metals and mining. Leveraging a workforce of over three thousand forward-thinking professionals located in 22 countries across 5 continents, Tenova designs technologies and develops services that help companies reduce costs, save energy, limit environmental impact and improve working conditions. Further information can be found at www.tenova.com.

About SUEZ

With 90,000 people on the five continents, SUEZ is a world leader in smart and sustainable resource management. We provide water and waste management solutions that enable cities and industries to optimize their resource management and strengthen their environmental and economic performances, in line with regulatory standards. To meet increasing demands to overcome resource quality and scarcity challenges, SUEZ is fully engaged in the resource revolution. With the full potential of digital technologies and innovative solutions, the Group recovers 17 million tons of waste a year, produces 3.9 million tons of secondary raw materials and 7 TWh of local renewable energy. It also secures water resources, delivering wastewater treatment services to 58 million people and reusing 882 million m^3 of wastewater. SUEZ generated total revenues of 15.3 billion euros in 2016.

SUEZ Water Technologies & Solutions was created following the acquisition by SUEZ of the former GE Water & Process Technologies business, which closed on September 30, 2017. The Business Unit combines the activities of former GE Water & Process Technologies and SUEZ’s own industrial service activities.

About NORAM Engineering and Constructors Ltd

NORAM Engineering & Constructors Ltd provides proprietary process and equipment solutions to the chemical and resource sectors worldwide. The Vancouver, Canada-based NORAM Group is a closely integrated portfolio of companies that allows process development to proceed from concept to full-scale industrial demonstration, with a strong emphasis on design-for-purpose. NORAM’s Electrochemistry Group specializes in established and novel electrochemical processes. It has specific electrochemical design expertise and has commercialized a customizable electrolyser platform for use in minerals processing, organic synthesis and wastewater treatment. Other activities of NORAM include:

- The world’s premier supplier of nitration technology for the production of mononitrobenzene, utilized in the manufacture of polyurethanes.
- Proprietary equipment, engineering and plants for the global sulphuric acid industry
- Leading provider of system closure and chemical recovery technologies for the P&P industry
- High-performance equipment and process vessels for the chemical and resource sectors

About Solvay S. A.

Solvay is a multi-specialty chemical company, committed to developing chemistry that addresses key societal challenges. Solvay innovates and partners with customers in diverse global end markets. Its products and solutions are used in planes, cars, smart and medical devices, batteries, in mineral and oil extraction, among many other applications promoting sustainability. Its lightweighting materials enhance cleaner mobility, its formulations optimize the use of resources and its performance chemicals improve air and water quality. Solvay is headquartered in Brussels with around 27,000 employees in 58 countries. Pro forma net sales were â‚¬ 10.9 billion in 2016, with 90% from activities where Solvay ranks among the world's top 3 leaders. Solvay SA (SOLB.BE) is listed on Euronext Brussels and Paris (Bloomberg: SOLB.BB - Reuters: SOLB.BR) and in the United States its shares (SOLVY) are traded through a level-1 ADR program.

About Pure Energy Minerals Limited

Pure Energy Minerals is a lithium resource developer that is driven to become a low-cost supplier for the growing lithium battery industry. The Company is developing the Clayton Valley (CV) Project in Clayton Valley, Nevada. The Company is also exploring a major new lithium brine project in the Lithium Triangle of South America, the Terra Cotta Project (“TCP”). The TCP is located on Pocitos Salar in Salta, Argentina, where it enjoys some of the best infrastructure and access of any lithium brine exploration project in Argentina.

Pure Energy has developed core strengths in innovative development and processing technologies for lithium brines and lithium mineral deposits. Key attributes and activities include:

- A large, strategic land position with excellent infrastructure in a first-class mining jurisdiction: approximately 9,900 hectares (24,500 acres) in Clayton Valley, Esmeralda County, Nevada, located a 3-hour drive from the Gigafactory;

- An inferred mineral resource of approximately 247,000 tonnes of lithium hydroxide (218,000 tonnes of LCE) at the Clayton Valley Project with an average grade of 123 mg/L lithium;
- The only lithium brine resource in North America to yield a positive Preliminary Economic Assessment including after-tax NPV (8% discount) of US $264 million and an IRR of 21%;
- Advanced metallurgical testwork demonstrating the improved efficacy of a new, environmentally responsible, lithium processing technology that produces low-cost battery grade lithium hydroxide;
- An early stage exploration program on the 13,000-hectare (32,000 acre) Terra Cotta Project (TCP), located on Pocitos Salar in Salta Province; and
- An active business development program, applying Company expertise to the evaluation of new lithium targets around the world.

On behalf of the Board of Directors,

“Patrick Highsmith”
Chief Executive Officer

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Forward-Looking Information

The information in this news release contains forward looking statements that are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in our forward looking statements. Factors that could cause such differences include: changes in world commodity markets, equity markets, costs and supply of materials relevant to the mining industry, change in government and changes to regulations affecting the mining industry. Forward-looking statements in this release may include statements regarding construction of a pilot plant, financial contributions from other parties to the Company’s project, the operating costs or efficiencies of a future commercial lithium plant, the environmental impact of a future lithium mine, planned test or exploration work, operation plans, and mineral tenure issues. Although we believe the expectations reflected in our forward looking statements are reasonable, results may vary, and we cannot guarantee future results, levels of activity, performance or achievements.