



University of Calgary collaborates with Kalina and major energy companies in geothermal and waste heat to power research

KALINA Power Limited ("KALINA" or the "Company") (ASX: KPO) is pleased to announce its involvement in an important CA\$3 million research program with the University of Calgary, funded by industry participants and government grants.

The program, which was initiated by KALiNA Power, represents a collaboration between the University of Calgary and industry participants including ConocoPhillips, Ashaw Energy, Suncor, Telsec and Terrador Energy.

The research is aimed at evaluating and improving the efficiency of innovative heat-to-power systems, as well as improved conversion systems for the use of waste or latent heat from industrial processes. In addition, the University's 'Energy Harvesting' deliverable involves the mapping of potential industrial and geothermal resources throughout the province.

The KALiNA Cycle technology is particularly efficient at harvesting energy from geothermal sources at low temperatures, which gives it a wide range of potential zero-emissions solutions within the broader research program.

Funding for the program will be provided by contributions from industry participants together with grants from the Natural Science and Engineering Research Council of Canada (NSERC), in collaboration with national Canadian research organization Mitacs.

The program provides the Company with a unique opportunity to work with the expert team at the University of Calgary to further optimize its technology and also engage with industry partners who are motivated to deploy innovative zero-emissions technologies in the Canadian market.

KALiNA looks forward to providing updates on the progress and work underway for this commercially targeted research program and related developments.

The full University of Calgary news release is available in the following link:

www.ucalgary.ca/news/geothermal-energy-research-receives-major-funding-boost

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This announcement was authorised by the board of Kalina Power Limited. About KALINA Power Limited

KALINA Power Limited is an ASX listed clean-tech company engaged in two core business activities: The power project development arm of the Company operates out of Calgary, Alberta and is assembling a portfolio of various power projects in the province. The technology development arm of the Company is responsible for advancing various applications of the Company's KALINA Cycle® technology for global deployment to international markets.

POWER PROJECT DEVELOPMENT:

KALINA Distributed Power Limited ('KDP')

Power Project Development is the primary business of KDP. The Kalina team has over 150 years of experience in power project development and has developed over 9 GW of state-of-the-art power projects.

The team is developing a portfolio of projects which include:

Large Scale Combined Cycle Power Plants with Carbon Capture and Sequestration ("CC-CCS"):

KDP is developing a portfolio of CC-CCS projects in which ~95% of CO2 generated are captured and sequestered in authorized deep aquifers. Projects in development range in size from ~200 MW to ~450 MW with capex of ~CA\$700MM to ~CA\$1.3B. The initial project is targeting an in-service date of late 2027. Gas supply, electrical interconnection and CO2 sequestration are well understood and in progress.

Kalina is in the process of conducting a competitive bidding process to select major OEMs for the power island and post combustion carbon capture vendors. Bidders have provided operating parameters, costs and performance all of which have confirmed attractive economics. Kalina expects to make its selections and enter into commercial contracting discussions during Q1 2023. These projects will involve long term tolling contracts in which gas producers add value to their gas by producing zero emissions power. Tolling contracts provide stable and attractive margins for each project to attract project finance. The Company has received expressions of interest in long-term tolling of natural gas to power from large Alberta based gas producers.

Saddle Hills:

Saddle Hills is the Company's most advanced project. It is fully permitted to construct & operate up to 64 MW from two combined cycle power plants; each configured with 22 MW Siemens SGT-600 gas turbines and 10 MW KALiNA Cycle® modules generating zero-emissions power from the gas turbine's waste heat. The Company intends to proceed with a phased deployment strategy. This will include initially deploying the two 22 MW gas turbines in Simple Cycle Peaker mode to support continued growth in renewable generation in the Alberta market. The Company will seek to add the KALiNA Cycle® and possibly carbon capture & sequestration as legislative and commercial circumstances warrant. A narrated video of the engineering 'walk-through" of Saddle Hills is available at https://youtu.be/ybbq8huPlCg.

TECHNOLOGY DEVELOPMENT

KALINA Power Limited owns the KALINA Cycle® technology and is a clean-tech company in the geothermal and Industrial Waste Heat to Power ("WHP") sector. The KALINA Cycle®Technology is capable of producing zero-emissions power from heat produced by energy-intensive industrial processes that may otherwise be wasted, as well as from the heat available in geothermal resources. The technology has been commercially deployed across a range of industrial settings and applications at 16 plants around the world. KPO owns the worldwide patents relating to the KALINA Cycle®Technology and has one of the most substantial intellectual property portfolios in the sector.

The Company signed a non-exclusive and non-binding Memorandum of Understanding ("MOU") in 2022 to establish global energy technology company Baker Hughes as a preferred vendor of advanced turbine technology for a range of KALiNA Cycle® designs. The MOU provides a framework by which the parties can develop modularized packaged solutions for markets that are in transition to zero-emissions and energy efficient power. Baker Hughes has also been selected to initially provide its vapor turbine for use with the KALiNA Cycle® at KALiNA's 64MW combined cycle project in Saddle Hills, Alberta, Canada.

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