

CLEAN RESOURCES

CLEAN TECHNOLOGY

RENEWABLE AND ALTERNATIVE ENERGY - ELECTRICITY GENERATION

Craft Hydropower Generation

The electricity sector needs reliable, affordable, low-emissions electricity sources to meet growing demand and emission reduction targets, while Alberta industries seek economical solutions to reducing their carbon footprint. Craft Power Corp. ("Craft") has developed an innovative process to generate GHG-free electricity by harnessing the energy of sub-terranean brine. In collaboration with partners, Craft will conduct a field demonstration in Alberta to evaluate the technology's economic and technical feasibility for commercial deployment, and for use in Craft's emerging long duration power storage technology system.

FUNDING DETAILS





PARTNERS:
SLB
Conifer Energy Inc.





TOTAL BUDGET: \$3,106,855



AI FUNDING: \$1,203,283



PROJECT DATES:

JAN 2023 – JUN 2024



PROJECT TRL:

Start: 7 End: 9

APPLICATION

Craft's hydropower generation technology is expected to generate continuous, clean, and GHG free electricity from suitable and active brine infrastructure connected to the electricity distribution system. The technology is also intended for use in Craft's long duration power storage system. While Alberta is the initial market, Craft's generation and storage technologies have global market potential.

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PROJECT GOALS

- Validate the power generation capacity and efficiency of the technology.
- Develop economic and technical criteria for determining viable locations for installation of:
 - a. the generation technology, and
 - b. the generation technology with Craft's power storage system technology.
- Establish power curves to predict power generation capacity and efficiency within a range of brine flow rates.

BENEFITS TO ALBERTA

- A new source of low-emissions electricity that will displace carbon emitting electricity generation, lower the Alberta's carbon intensity of electricity system and contribute to goal of net zero emissions by 2050.
- Increase investment attractiveness of Alberta-based industries that enter long term power supply contracts with Craft, gaining advantages of enhanced environmental sustainability and energy resiliency.
- Facilitate commercialization of Craft's long duration power storage system, to enhance renewable energy market share on the Alberta Interconnected Electricity System ("AIES").
- Advance the opportunity for Craft's hybrid power generation/storage solutions to provide ancillary services to the AESO.



1 Patent



3 Project Jobs



11-100 Future Jobs



2 New Products/Services



1 Spinoff Company



10-100 kt/yr Project GHGs Reduced



100 kt to 1 Mt/yr Future GHGs

CURRENT STATUS

FEB 2023

Project is starting up. Craft has secured access to a field location with suitable infrastructure to conduct the demonstration project.