Distributed Energy Project Profile

Balfour Energy Corp.

Fenwick, Ontario, Canada

Market
Distributed energy

Commisioned
2019

Challenge
Provide reliable and cost-effective electricity and heat to a 10-acre greenhouse

Solutions
Cogeneration (Islanded)

Output
10 MW electrical
6 MW thermal

Balfour Energy Corp. (BEC) was developed as a means to provide the offtaker with cost-effective electricity relative to the Ontario electricity grid as well as reliable power quality, which was unavailable from the local distribution company.

Located on-site at a 10-acre greenhouse, the BEC combined heat-and-power (CHP) plant uses four 2.5 MW generator sets to supply enough electricity to power the entire facility. Heat is recovered from the CHP plant as a by-product in the form of hot water and is used to heat the greenhouse. Excess recovered heat is stored in a thermal storage tank. The CHP system allows the offtaker to offset 100% of the natural gas consumed in their existing boilers for heating.

The CHP plant is owned and operated by Envest with our in-house operations and maintenance (O&M) team managing the day-to-day activities at the facility. Since commissioning in 2019, the facility has achieved a 97% uptime.

BEC has solved the offtaker's challenge of sourcing reliable and cost-effective electricity through the use of best-in-class technology, engineering expertise and O&M capabiltiies. Feasibility engineering is currently underway to supply additional greenhouse loads with clean and reliable electricity from the Envest CHP plant.

For more information, please visit www.envestcorp.com

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