



Welcome

TO THE

**CASCADE
POWER
PROJECT**

COMMUNITY
OPEN HOUSE



Who is Cascade Power?

Cascade Power is an Alberta-based power producer providing customized and reliable on-site power generation solutions. Cascade Power is passionate about creating a clean energy future for Canada.

We are focused on the design, construction, commissioning, operation, maintenance, and ownership of gas to power generation facilities that deliver clean energy solutions to power consumers and utilities.





Project Overview

Cascade Power is proposing to build and operate a 900 megawatt (MW) combined cycle power generation facility, with an anticipated in-service date towards the end of 2022.

The Project will use modern, highly efficient industrial turbines fueled by natural gas, which will be supplied to the plant via a seven kilometre pipeline tied into the existing natural gas distribution network located near the Project. The facility will have the capacity to serve the electrical needs of approximately 900,000 homes and businesses in Alberta.





Pipeline Route



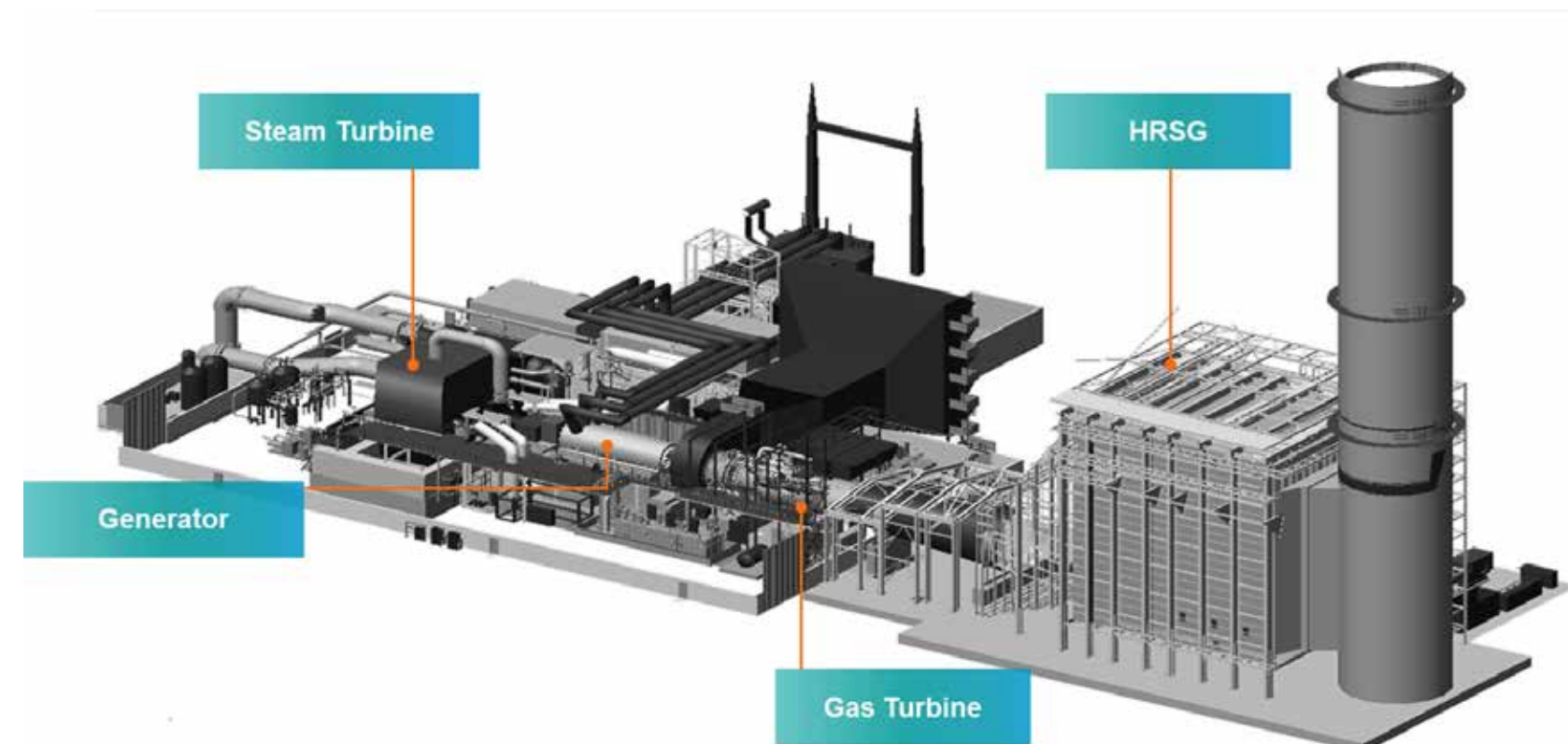
To fuel the combined cycle power plants, natural gas will be supplied to the plant via a pipeline. The seven kilometre pipeline is depicted by a yellow line in the photograph above.



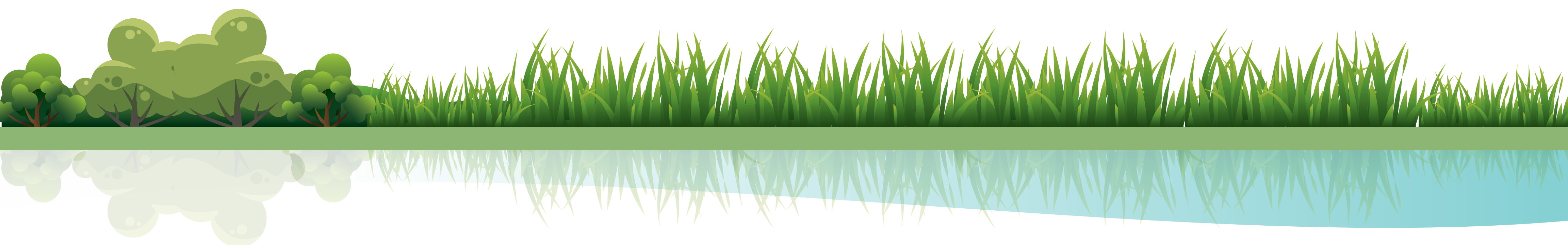


Project Renderings

- The Project will feature two 1x1 gas/steam turbine line-ups, each producing approximately 450 megawatts (MW) for a total plant output of 900 MW.
- The electricity produced will feed into the Alberta provincial grid to meet electric power requirements of the Province.
- The Project will require up to 150,000 gigajoules (GJ)/day of pipeline specific natural gas as fuel, with an estimated net plant efficiency of more than 60%.



- The combined cycle power facility uses natural gas as a fuel to produce power in a gasturbine generator and then uses the waste energy from the exhaust to produce steam, which drives the steam turbine generator.
 - The waste heat from the gas turbine exhaust will be used in Heat Recovery Steam Generators (HRSG) to produce steam that will ultimately power the steam turbine.
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What is Combined Cycle Power Generation?

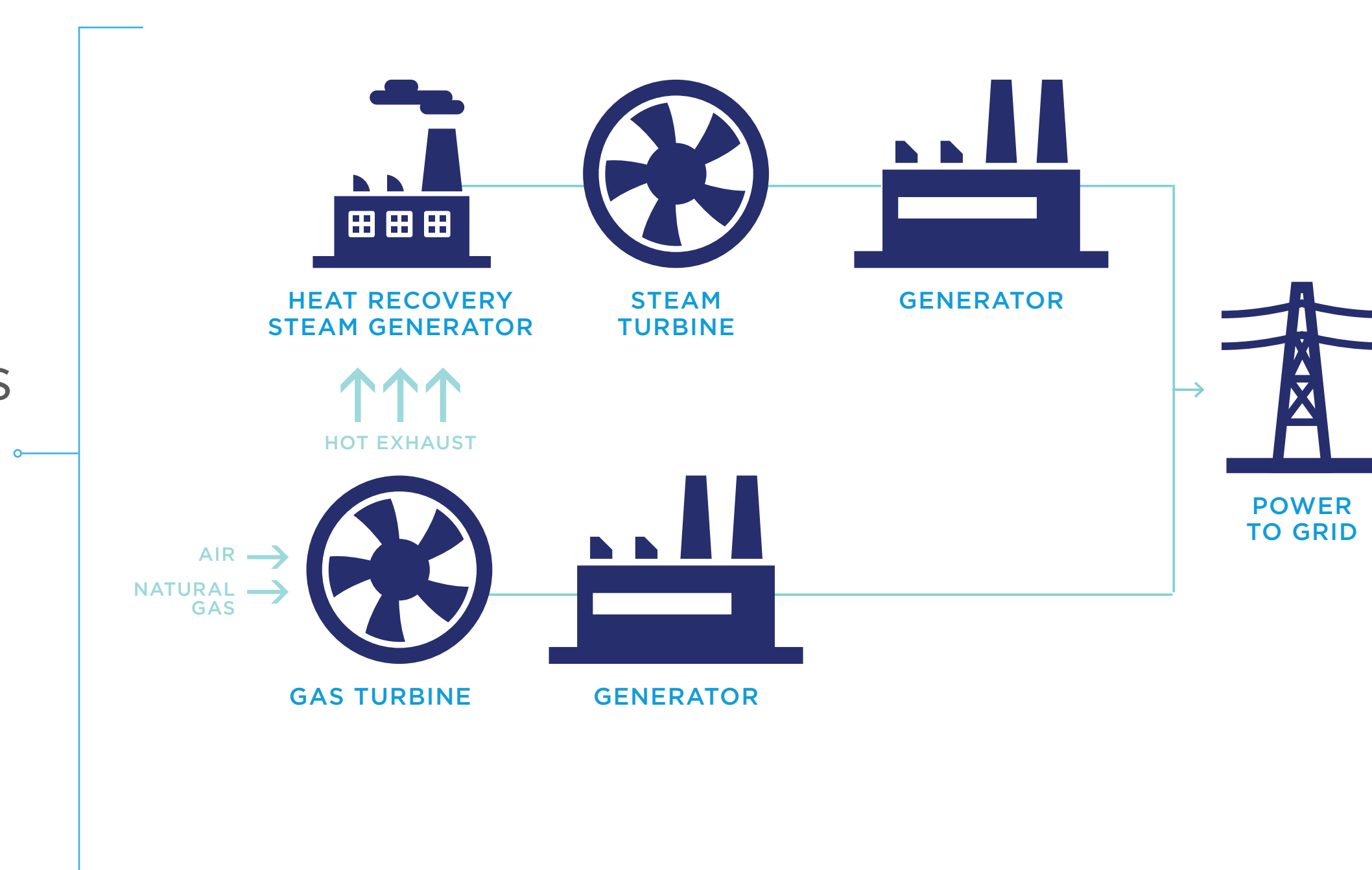
Natural gas combined cycle power generation facilities are a high efficiency, environmentally attractive form of power generation necessary to meet the growing demand for electricity in Alberta.

Combined cycle power facilities:

- are comprised of a combination of both gas and steam power production technologies.
- use natural gas to produce power in a gas-turbo generator.
- route waste heat from the gas generator to the steam turbine to generate extra power.
- produce up to 50 percent more electricity from the same amount of fuel than traditional simple cycle power facilities.

Benefits:

- Optimal power outputs
- Higher efficiency
- Lower emissions

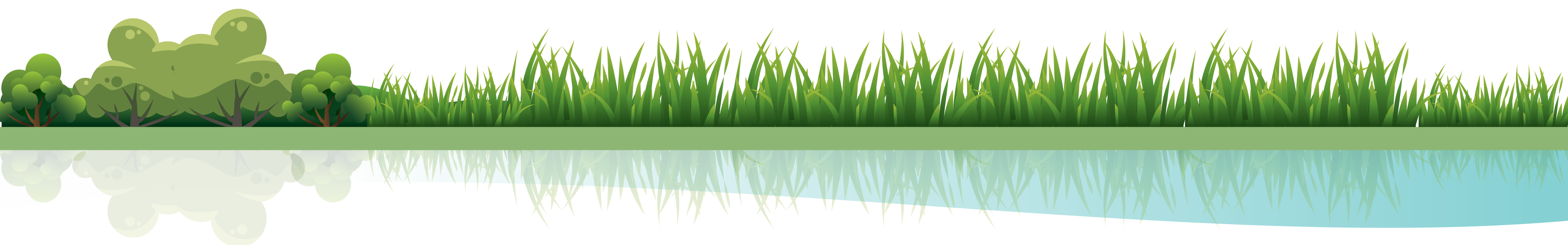
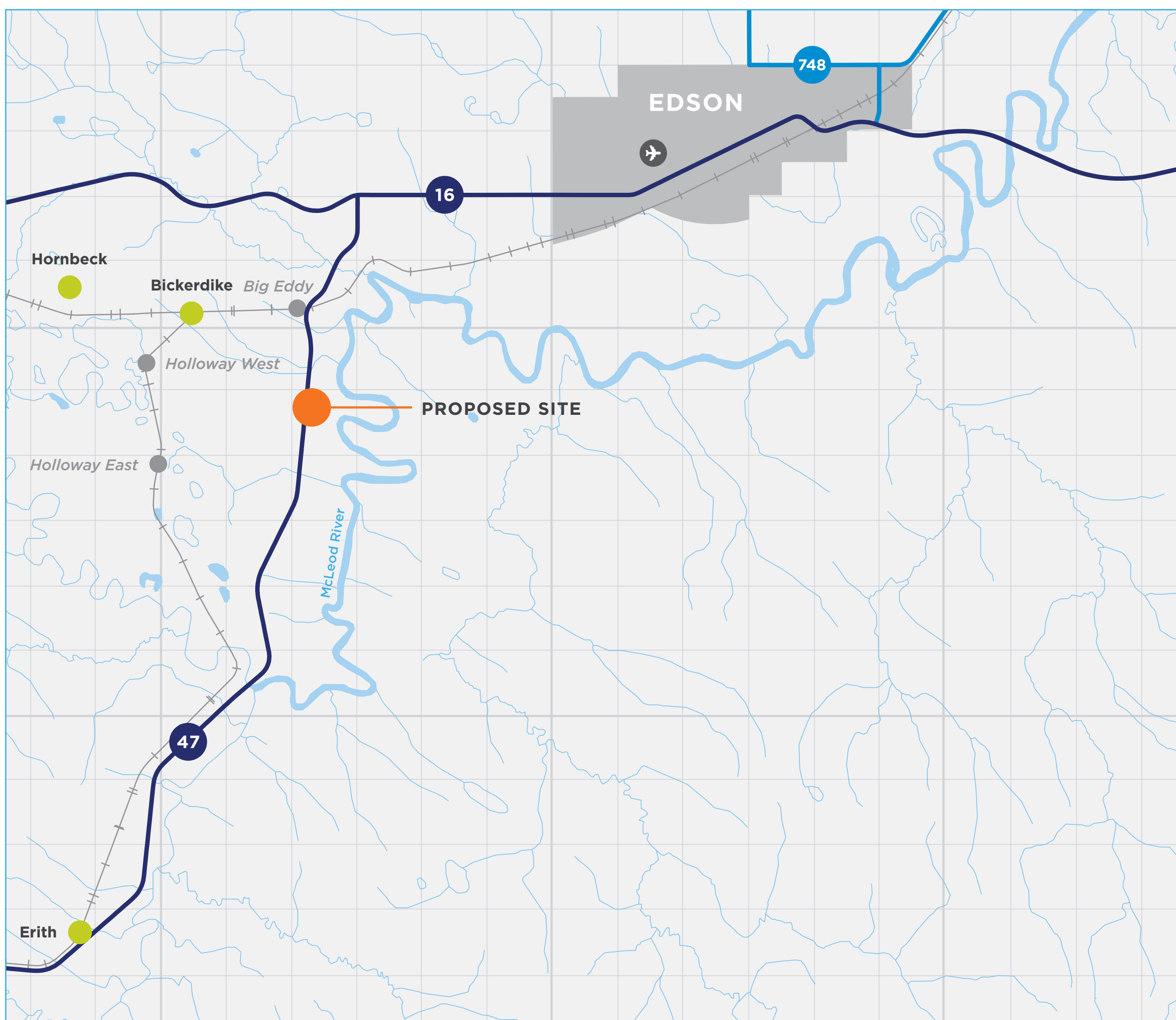




Project Location

The Project will be located on Crown lands on a 52-hectare site in Yellowhead County, approximately 12 kilometres southwest of the town of Edson, Alberta.

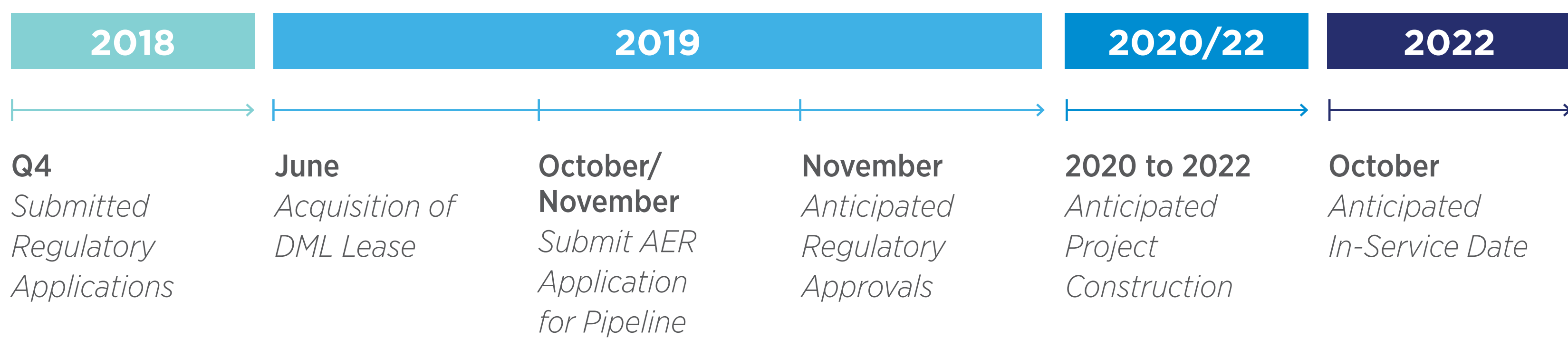
Access to a gas supply, proximity to Alberta's interconnected electric system, land access and minimal environmental impact were all criteria considered in the site selection process. The Project's location, close to Edson, will allow for staging during construction as well as access and investments into local goods and services.





Anticipated Timeline

In Q4 2018, following the completion of environmental studies and assessments and public and Indigenous engagement, Cascade Power submitted regulatory applications to the Alberta Utilities Commission (AUC) and Alberta Environment and Parks (AEP). When the Project is approved, construction is anticipated to commence in the spring of 2020, with a planned in-service date of October 2022.

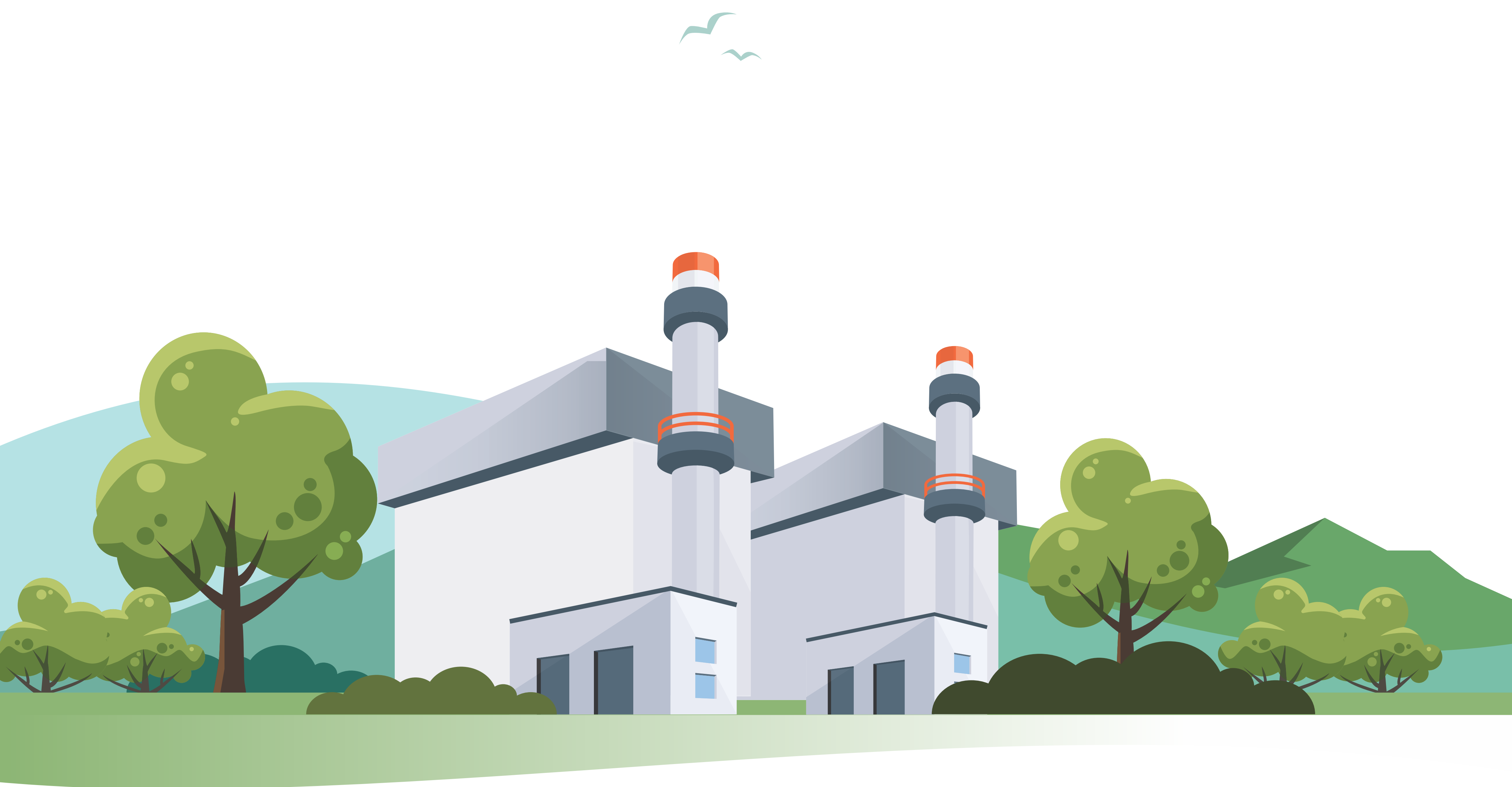




Project Need

As Alberta continues to prosper, the Province will need new supplies of electric energy produced from innovative technologies to meet the growing demand for electricity.

Natural gas is one of the most reliable and abundant energy sources in Alberta. Combined cycle power facilities have been identified as a viable option to produce efficient, reliable on-demand power.





Adding Value

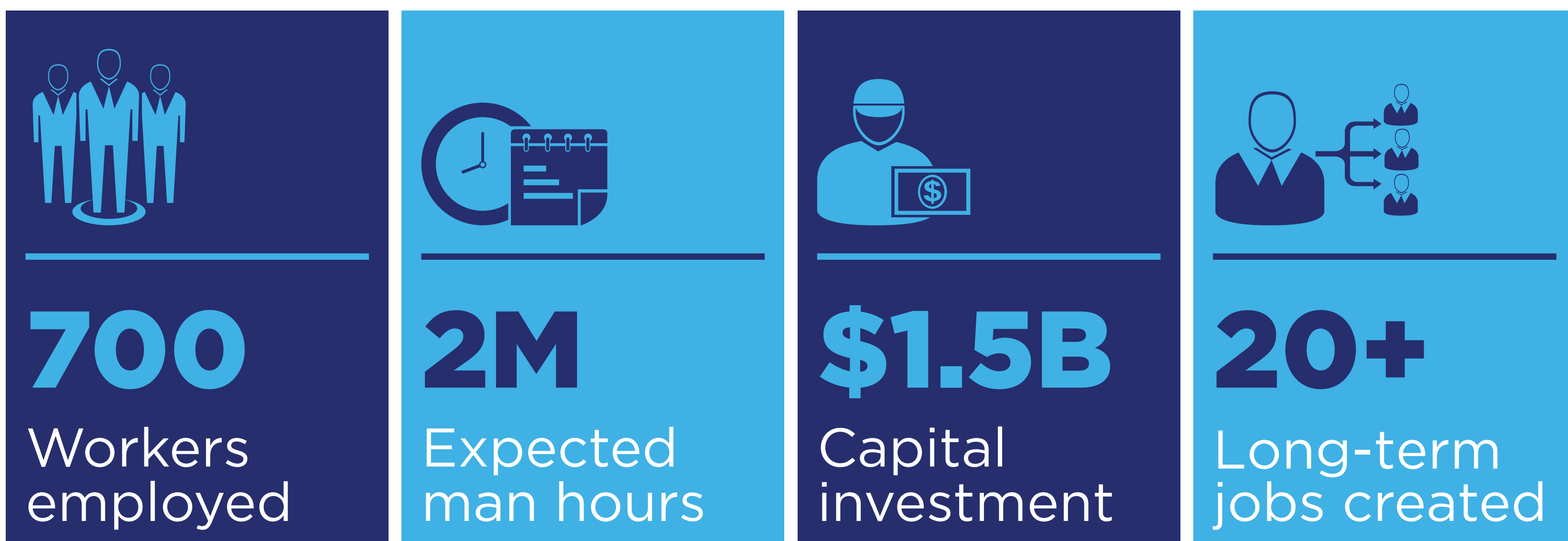
In Alberta

The development of combined cycle power generation facilities will provide reliable on-demand power, which will help Alberta transition to a diverse energy future.

In Yellowhead County and the Edson Community

The development and operations of the Project will play an important role in the local economy by providing jobs during construction that will benefit the local and Indigenous communities, businesses and suppliers, as well as provide a base of additional tax revenue to Yellowhead County.

- It is anticipated the facility will take three years to construct, employing approximately 700 workers at the peak of construction.
- The anticipated work effort is expected to be almost 2,000,000 man-hours in the local area.
- The total capital investment associated for the Project is to be approximately \$1.5 Billion.
- Once operations commence, more than 20 direct, long-term skilled jobs will be created in the community.





Environmental Assessment

The Project is being designed and will be operated in a way that minimizes potential adverse environmental effects and supports the Provincial government's effort to continue to diversify its overall power production mix.

We have engaged third-party environmental experts to assess the impact of the Project on:

- Acoustic Environment
- Air Quality
- Soil and Terrain
- Vegetation and Wetlands
- Wildlife Species and Habitat

The assessment determined that the potential adverse effects associated with the Project can be mitigated with Project-specific mitigation measures and industry best practices. Based on this assessment, the residual adverse effects of the Project are predicted to be not significant.





What Can I Expect During Construction and Operations?

We will continue to engage with communities to understand how we can minimize impacts to nearby residents during the construction phase.

Noise

A detailed noise impact assessment was undertaken to document the noise that will be generated by the Cascade Power facility during both the construction and operation phases and to propose mitigation measures. The Project will comply with applicable regulatory noise limits.

Air Emissions

A dispersion modelling assessment compliant with the Alberta Air Quality Model Guideline was completed to assess Project effects on air quality. The Project will comply with applicable regulatory emissions requirements.

Visual

The Project site is located on a cleared site and would be visible from Highway 47. To reduce the visual impact of the facility, Cascade will continue to assess options to modify the overall site plan, through such measures as berms and other related options.

Traffic

Construction of the facility may impact traffic at various times during large equipment delivery. Where possible, the Project will maintain safety and enforce an approved traffic management plan.

Work Hours

We anticipate the hours of work for this Project to be from 7:00a.m. to 10:00p.m.



Employment and Contracting Opportunities

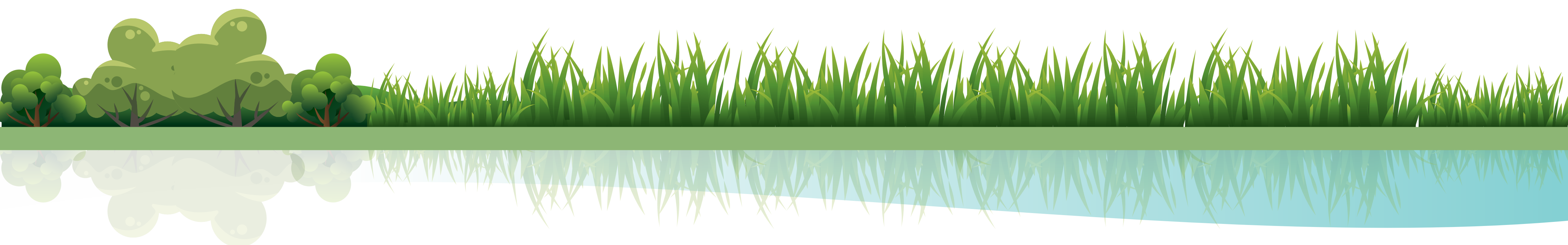
We anticipate approximately three years of construction will be required to complete the new facility.

We have appointed an Engineering, Procurement and Construction (EPC) contractor to provide information on opportunities for employment.





Proposed Transmission Line Route





Thank you

Your questions and feedback are important to us. Please take a moment to fill out a feedback form.

For more information:

Email: info@cascadepower.ca

Toll-free: 1-855-955-3056

For more information about the Project, please visit:

www.cascadepower.ca
