

Introduction

TransAlta Corporation (“TransAlta”) is proposing to construct the 44-megawatt (MW) Pinnacle Project (“Pinnacle” or “the Project”), located between the Keephills 1&2 and Keephills 3 units, on lands included within the Keephills Power Plant site in Parkland County. Once the Project is operational, it is expected to generate approximately 60,000 megawatt hours of electricity in the first year.



This Project is comprised of 4 compression-ignition Wartsila engines with a rated capacity of 11 megawatts each. The Plant will cover an area of approximately 0.5 hectares (1.24 acres). The approximate location of the Project is shown above. The engines will be connected in pairs, with each pair linked to the grid independently. Therefore, each unit pair is called Pinnacle 1 and Pinnacle 2, respectively. For simplicity we will refer to the project as just “Pinnacle.”

Why is this a good project?

- Pinnacle is being designed as a peaking power plant, which means it will generally provide electricity during high demand periods only.
- Our thermal fleet is unable to ramp on and offline quickly in response to dynamic renewable energy sources, but this peaking power plant would be able to meet this demand.
- This provides flexible capacity to the Alberta grid that could help replace retiring thermal units.
- It complements TransAlta's existing portfolio of thermal, hydro and renewable assets.
- The Project uses a lot of existing infrastructure at the Keephills site so is a good synergy opportunity.

About TransAlta

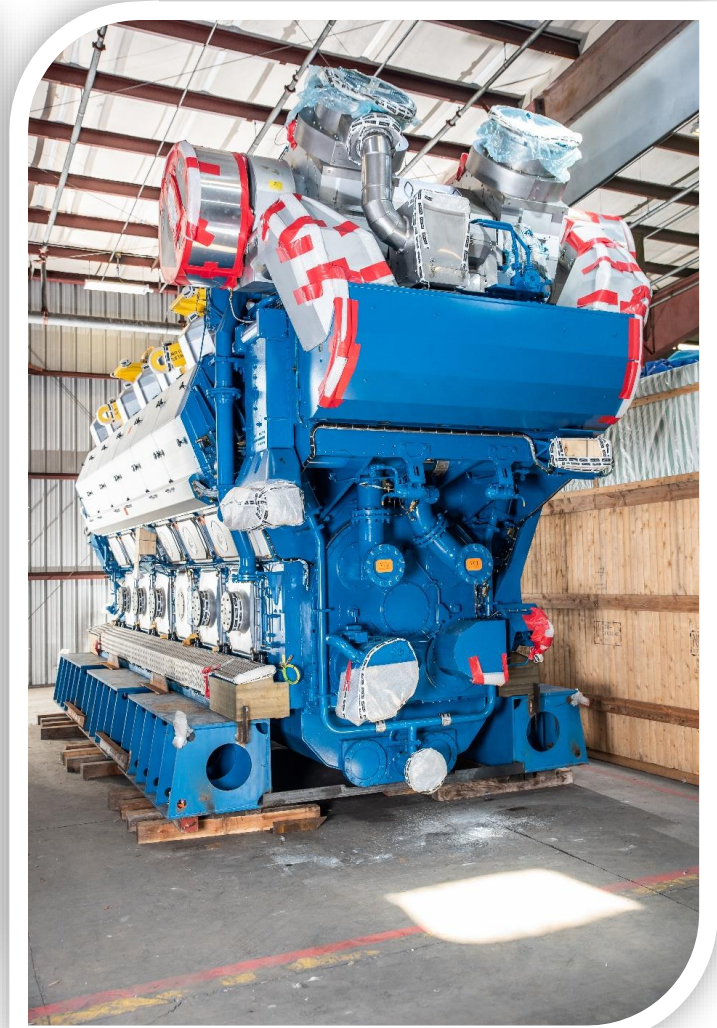
TransAlta owns, operates and develops a diverse fleet of electrical power generation assets in Canada, the United States and Australia with a focus on long-term shareholder value. TransAlta provides municipalities, medium and large industries, businesses and utility customers with clean, affordable, energy efficient and reliable power. Today, TransAlta is one of Canada's largest producers of wind power and Alberta's largest producer of hydro-electric power.

For over 111 years, TransAlta has been a responsible operator and a proud member of the communities where it operates and where its employees work and live. TransAlta aligns its corporate goals with the UN Sustainable Development Goals and its climate change strategy with the former Climate Disclosure Project (CDP) and the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

TransAlta has been recognized by CDP with an 'A-' rating, and since 2015 has achieved a 68 per cent reduction in Greenhouse Gas (GHG) emissions.

Proposed Onsite Equipment

The Project will be using new Wärtsilä engines to produce electricity. The engines are currently stored in a Seattle warehouse as shown below. All four engines will be transported to the Keephills and installed in one building at the proposed site.



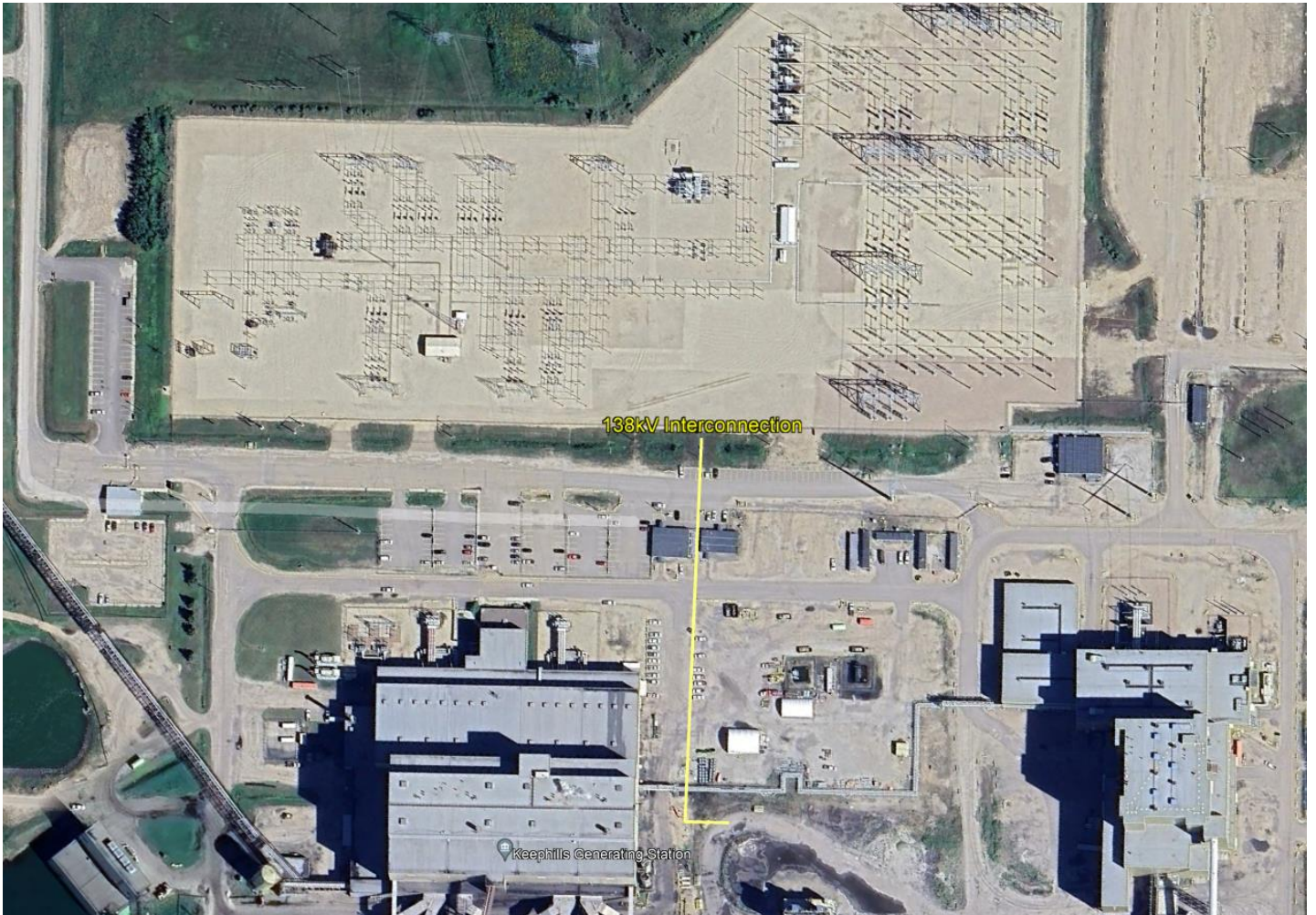
A compression-ignition engine is an internal combustion engine in which ignition of the fuel takes place with the help of diesel and hot compressed air. As the air is compressed, it heats up and is used for the ignition and burning of the fuels. The engines at Pinnacle will be using 99% natural gas with 1% diesel by volume to produce electricity. Both natural gas and diesel will be sourced from the Keephills facility's existing suppliers.

Other infrastructure will include transformers, cooling water lines, firewater systems, fuel storage, emissions control equipment, noise abatement equipment, switchgear, automation and controls, and overhead connections to an existing substation. Utilization of this infrastructure is key to a low-cost generation Project.

Connection to the Alberta Interconnected Electric System

TransAlta is working with the Transmission Facility Owner, AltaLink, and the Alberta Electric System Operator (AESO) to connect the Project to the Alberta Interconnected Electric System (AIES or “grid”) through the existing 138kV 401L line to the AltaLink substation located at Keephills.

No new offsite transmission lines are required to connect the Project as the existing infrastructure is adequate.



Existing AltaLink Substation with 138kV interconnection to Pinnacle

Project Construction

Should the Project receive AUC (Alberta Utilities Commission) approval, project construction is expected to run between Q2 2024 to Q3 2025, with commissioning and commercial operations scheduled for the fourth quarter of 2025. The Project is expected to employ approximately 100 workers during the peak construction period.

Noise Impact Assessment

A Noise Impact Assessment (NIA) will be conducted in July 2023. The NIA evaluates the potential noise impacts while considering existing and proposed infrastructure in the area. The Project is expected to have a low noise profile, and the NIA is expected to confirm that the Project will meet the permissible sound levels per the Alberta Utilities Commission (AUC) Rule 012: Noise Control. A copy of the NIA will be submitted as part of the AUC application.

Air Emissions Modelling

An air emissions model will be utilized to assess the impact of the emissions on the environment. The Alberta Environment and Protected Areas (EPA) recently published guidance for air emission limits on reciprocating engines operating as peaking units in Alberta in response to the increase in power plants being proposed by greenhouses, power companies and crypto currency facilities. Pinnacle's design will meet all standards set by these newly published guidelines.

Regulatory Requirements

TransAlta is preparing to file its application to the AUC in Q3, 2023, under the AUC's Rule 007 which applies to applications for the construction, alteration, operation, and connection of thermal power plants. Prior to filing the AUC application, TransAlta will engage with Indigenous groups and local stakeholders and will incorporate feedback into its Participant Involvement Program (PIP) as per the AUC's Rule 007 engagement requirements. Questions or concerns related to the Project continue to be collected via email at: pinnacleproject@transalta.com.

We recommend a review of the AUC brochure [Participating in the AUC's independent review process](#), which provides an overview of the application process.

For additional information we invite you to visit the AUC's website at: www.auc.ab.ca. If you have questions regarding the AUC's process, please contact the AUC at: 310-4282 (in Alberta) or 1-833-511-4282 (outside Alberta) or by email at: info@auc.ab.ca.

Preliminary Project Schedule (Subject to Change)

	2023	2024	2025
Environmental assessments	Q3		
Stakeholder & Indigenous engagement	Q3		
AUC application submission	Q3		
Approvals & permits	Q4		
Project construction		Q2-Q4	Q1-Q3
Project commissioning			Q4

Emergency Response Plan

TransAlta maintains detailed Emergency Response Guides for its thermal facilities with specific information for each facility. The Emergency Response Guides provide detailed actions for TransAlta personnel to take in the event of a medical emergency, a dam breach or flooding, fire and evacuation, an environmental spill and security incidents. TransAlta also maintains Emergency Response Preparedness Plans and shares these plans with Indigenous groups, municipalities, and other stakeholders.

TransAlta will develop a site-specific Emergency Response Plan (ERP) for the construction and operation of the proposed Pinnacle power plant. Site-specific risks will be identified, and appropriate site monitoring and communication protocols will be put into place. The project’s ERP will be developed in consultation with local responders and authorities.

TransAlta will review the ERP for the Keephills Plant site and adjust as required to ensure detailed plans are developed for the peaking facility. Emergency response training sessions for the peaking facility will be provided for local authorities (Parkland County) and Indigenous groups as necessary. TransAlta is committed to working with stakeholders in developing the ERP and will file it with the AUC upon completion.

Local Community Benefits

During construction, the Project will create up to 100 full-time jobs, creating opportunities for both local individuals and businesses. The Project will generate significant property tax revenue for the County, resulting in financial benefits to the broader community.

We Want To Hear From You

If you have any questions, comments or concerns about the Pinnacle project, there are several ways to get in touch with us:

1. **EMAIL** us at pinnacleproject@transalta.com
2. **PHONE** our project line at **(877) 547-3365**, extension 1
3. Attend our **OPEN HOUSE** on August 9th, 2023, from 3:00 pm -7:00 pm

KeepHills Community Center (Address: 15 - 51515 Range Road 32A, Duffield, AB, T0E 0N0).

For more information on the Project, please visit our website at:

<https://transalta.com/about-us/our-operations/projects-in-development/pinnacle/>