

Public Open House





Welcome to the Buffalo Atlee Wind Farm 1/2/3 Public Open House

Meet the team, learn more about the projects and find answers to your questions!

Please remember to fill out a feedback form before you leave!



Project Proponents



Capstone Infrastructure Corporation is an independent power producer, headquartered in Canada, that owns and operates a mix of 24 thermal and renewable facilities that together generate 605 megawatts.

Capstone is leading the project development and has a track record of success across 8 utility-scale wind projects totalling 123 MW in Ontario and Quebec over the last 5 years.





The Sawridge First Nation is an original signatory to Treaty No. 8 (in 1899), and is a self-determining, innovative, progressive and prosperous nation of Cree people who continue to govern in a harmonious and balanced way. This Nation is inclusive of all members, values relationships, customs, and traditions, and respects both maintaining culture and environment for future generations.



"This project is a great step for Sawridge First Nation as it helps us move forward in our continued endeavors towards self reliance, while balancing the need for energy and protecting Mother Earth for our future generations"

Chief Roland Twinn, Sawridge First Nation



Wind Power in Alberta

- Canada's first commercial wind farm was built on Cowley Ridge, near Pincher Creek, in 1993.
- Over 900 turbines are currently installed across the province as part of 37 total projects.
- Alberta has an installed wind energy capacity of 1,483 MW. Wind farms in Alberta produce enough electricity each year to power about 380,000 average sized homes.
- Coal-fired generation in Alberta will be phased out by 2030, and renewable energy generation is expected to increase to more than 30% by 2030.



Where does Alberta's power come from?



Renewable Electricity Program (REP)

- The REP was developed to support the Government of Alberta's goal of 30 per cent renewable electricity by 2030.
- The REP project contracts have a *contract for difference* structure. These projects receive a top up payment when revenue is below a set price. When the Power Pool price rises above the set price, excess revenue is paid back to the government.
- The power prices for the 12 winning projects from REP 1, 2 and 3 in 2018 and 2019 range from 3.1 to 4.3 cents/kilowatt-hour. These are record prices across Canada for wind power and represent the lowest cost new generation in Alberta.





Updates to Project Layout

- The layout has been updated since the first open house to reflect changes in the projects due to the results of the flora and fauna surveys, and feedback received from AEP, Special Areas, and other stakeholders.
- Changes in the layout from the first open house are highlighted in yellow.
- The majority of the changes were to the location of access roads and underground collector system, with some minor shifts in turbine positions, as shown compared to the previous locations in grey.





New Project Information

Since the first open house, new assessments have been completed for the projects and new commitments announced.

Visual Simulations

- Photo-simulations of the projects have been prepared from 4 viewpoints in and around the community of Jenner
- The viewpoints were taken along the common routes of Hwy 884 and 555

Shadow Flicker Assessment

The results of the study show that nearby residences will not be subject to more than 30 hrs of turbine shadows per year, which is used as an industry threshold on an annual basis. The draft report is available for review.

Noise Impact Assessment

- A Noise Impact Assessment (NIA) has been completed for the projects based on the use of the Siemens SG145 turbines
- A map of the noise contours and the draft NIA report are available for review

Community Support & Sponsorships

- On behalf of the project, and as a result of consultation, Capstone is contributing to the Jenner School's efforts to fundraise for a new AED device
- Capstone is also making a donation on behalf of the community to the rural HALO search and rescue group in Medicine Hat that services the community
- Capstone is also evaluating long-term opportunities to further support community initiatives and will announce new initiatives prior to the commencement of construction.



Visual Simulations









Viewpoint 1:

- View SE from the town of Jenner, in the afternoon
- 11 turbines visible, nearest at 5.4 km

Viewpoint 2:

- View towards the SE near Hwy 555 and Rge Rd 91, in the afternoon
- 9 turbines visible, nearest at 3.8 km

Viewpoint 3:

- View towards the SW on Hwy 555 near Twp Rd 210A, in the morning
- 10 turbines visible, nearest at 0.95 km

Viewpoint 4:

- View towards the NE on Hwy 884 near Twp Rd 202, in the afternoon
- 11 turbines visible, nearest at 5.1 km



Wind Farm Benefits

Through the Buffalo Atlee projects, Capstone and Sawridge First Nation aim to further enrich and strengthen the community and add to the social benefits and sustainability associated with wind power.

Local services and employment

- Local services and commercial businesses will be utilized to the extent available
- Local qualified contractors and labourers will be engaged for construction
- Construction materials will be sourced locally whenever possible

Operations employment

Long-term employment will be created during operations for site managers, technicians, as well as secondary services for site maintenance

Tax revenues

Municipal tax revenue will be increased, which will offset gaps in revenue and stabilize taxes for all Special Areas residents

Landowner royalties

Host landowners will receive annual revenue which is often invested back into their businesses and the broader community





Buffalo Atlee Community Support and Sponsorships

Capstone is pleased to have provided a donation supporting the Jenner School's purchase of an automated external defibrillator (AED) for the facility.

Capstone is also pleased to have provided a donation to HALO Rescue, who provides emergency response and medevac transportation services to southern Alberta and the members of the Jenner community.

Please reach out to us if you have a local initiative which you think would benefit from our support and ties into renewable energy or sustainability within the community.



Project Details

Combined Nameplate Capacity: Total Number of Turbines: Interconnection:

New and Upgraded Access Roads: Underground Collector System: 48.3 MW

11 Siemens SG145 4.5MW

Connection to the existing above ground distribution lines which feed into the Jenner substation

Approx. 7.9 km

Approx. 7.5 km



Rotor Diameter: 145 metres or 476 feet

Hub Height: 127.5 metres or 418 feet

Rated Capacity: 4.2 to 4.6 MW per turbine



Project Siting Considerations



Feature	Setback Distance
Oil & Gas Infrastructure	30 m to 100 m
Transmission Lines	80 m
Provincial Highways	300 m
Public Roads	200 m
External Project Property Line	103 m*
Habitable Dwelling	800 m
Road Allowance	103 m
Internal Project Property Line	80 m
Class III to V Wetlands	100 m
Ferruginous Hawk Nests	1,000 m
American Badger Den	100 m
Swainson's Hawk Nest	100 m

*pending MPC approval



Wind Turbines and Noise

- All wind energy projects must comply with Alberta Utilities Commission (AUC) Rule 012: Noise Control.
- A Noise Impact Assessment (NIA) will be completed for all residences and dwellings within 1.5 kilometers of the project ("noise receptors").
- All receptors must be at or below the noise limit thresholds (50 dBA daytime, 40 dBA nighttime limits). Our layout is designed to conservatively meet 40 dBA day or night.
- The noise model considers sound from the project and nearby operational and proposed energy and industrial facilities (other wind farms, solar, oil & gas, etc.)
- Noise compliance, among other environmental and social considerations, will determine the final turbine layout.

Recent Project Update:

The draft Noise Impact Assessment (NIA) for all 3 projects is now complete and available for review.



Source: CANWEA

SOUND EXPOSURE



Noise Iso-Contour Map

- Noise modelling was done using Cadna software, and in compliance with AUC Rule 012 standards
- Modelling was based on conservative assumptions about turbine operation and environmental conditions using assumptions that tend to overestimate noise levels at receptors:
 - Turbines were modelled with maximum noise emissions at all times
 - Receptors (i.e., residences) were modelled downwind from all turbines at all times
 - Cumulative effects from existing, approved, and proposed facilities were added to the model
- Modelling shows the projects will be fully compliant with noise limits from AUC Rule 012 at all receptors





Shadow Flicker

- Shadow flicker was modelled using the WindPro software tool, which is widely used to assess shadow flicker from wind power projects.
- All receptors were modelled in "greenhouse mode" i.e., sensitive to shadow flicker in all directions.
- The model does not account for the influence of vegetation, which can provide effective screening against shadow flicker.
- The model uses monthly sunshine statistics from the Suffield, Alberta weather station to account for reductions in shadow flicker during cloudy periods.
- The model uses extrapolated, long-term adjusted wind direction data from the Project met tower to account for reductions in shadow flicker during periods when turbine rotors are turned away from receptors.





Stakeholder Consultation Process

- All wind energy projects must comply with Alberta Utilities Commission (AUC) stakeholder consultation ("Participant Involvement Program") requirements outlined in Rule 007
- A project Stakeholder Engagement Plan has been specifically developed to identify key stakeholders and outlines a detailed consultation plan for all interested parties
- Key Stakeholders include: landowners and occupants, local businesses, government entities, non-government organizations and potentially impacted Indigenous communities





Stakeholder Consultation Schedule:

	COMPLETE COMPLETE COMPLETE	Initial newsletter and mailout package Follow-up phone calls and meetings First public open house
\bigcirc	IN-PROGRESS	Second public open house
•	IN-PROGRESS	Follow up on open house feedback, and updates to the layout
\bigcirc	PLANNED	Project update mailout package,
•••	PLANNED	Filing of Rule 007 application to AUC
Ŏ	PLANNED	Engagement and dialogue with
\bigcirc	PLANNED	AUC Approval

March 2019 March - May 2019 June 2019

August 2019 August - September 2019

August 2019

Fall 2019 Fall 2019 - Winter 2020

Spring 2020



Environmental Evaluation and Protection

- Wind projects must follow Alberta Environment and Parks (AEP) siting guidelines to minimize impacts on local wildlife including birds and bats
- Capstone is working closely with AEP to assess potential risks and implement appropriate mitigation measures
- A wildlife monitoring program will be undertaken to assess whether any additional mitigation is needed

Recent Project Updates:

- All field surveys are now complete for the projects
- Capstone is planning to submit its results to the AEP for final review and referral letter in August





Project Timeline



Next Steps

- Updated consultation information will be mailed to all stakeholders in August
- All project documents are posted on the project website at www.buffaloatlee.com
- AEP referral letter anticipated by Q4 2019
- Project will be submitted to AUC once AEP referral letter received
- AUC approval anticipated for mid 2020



Regulatory Approvals

- Alberta Culture and Tourism
- Alberta Environment and Parks
- Alberta Transportation
- Alberta Utilities Commission
- Environment and Climate Change Canada
- Fortis Alberta
- NAV CANADA
- Special Areas Board
- Transport Canada

Approval Process for Wind Projects in Alberta

- The Alberta Utilities Commission (AUC) is the governing approval body for power plants, including wind farms, in Alberta.
- Prior to commencing construction, additional permits will be required from other non-government agencies (e.g., for new or upgraded approaches, building permits, aviation clearance, etc).

STEP 1	STEP 2	STEP 3	STEP 4
• Applicant completes stakeholder consultation and wildlife work	•Applicant files complete application with AUC	•AUC makes Information Requests to applicant	• Hearing is held and AUC reviews all filings
• Applicant prepares final layout, and obtains AEP approval prior to filing with AUC	•AUC reviews application for completeness and sends notice to all stakeholders on notification list	• AUC determines whether any interveners qualify for standing	• AUC makes determination (approval/rejection) and identifies conditions
		•AUC schedules a public hearing	• Appeal process initiated



End of Project Life

- The wind turbines planned for the Buffalo Atlee 1/2/3 wind projects are expected to be operational for more than 30 years.
- Given the renewable fuel source (the excellent wind resource), there is always some value at the site and so the project operations may be extended, depending on market conditions at that time, which is very different from oil and gas wells.
- At the end of the useful life of the wind turbines, Capstone will assess whether to repower or decommission the site
- If decommissioning is necessary, significant residual value from equipment is anticipated at end of life.

Repowering

- Turbines and/or other infrastructure may be upgraded and reused.
- Cowley Ridge wind farm, the first commercial wind farm installed in Canada, was recently taken down and a new project is being proposed on the site after more than 25 years of operation.

Decommissioning

- Turbines and infrastructure are removed and the land is restored to its original or equivalent land use.
- Decommissioning and reclamation will be completed based on the Conservation and Reclamation Directive for Renewable Energy Operations (AEP) and any updates at that time.
- Some underground infrastructure at depth of greater than 1 metre may be left in place if it has no impact on the surface land use and is in compliance with all laws and regulations in place at that time.
- Waste and debris generated during decommissioning activities will be collected and disposed at an approved facility.



Thank you

Please remember to fill out a feedback form before you leave!

Additional resources, reports and copies of the FAQs are available for attendees.

Contact Us

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Contact us by mail

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First Nation