# SEVEN STARS ENERGY LIMITED PARTNERSHIP, A WHOLLY OWNED SUBSIDIARY OF ENBRIDGE INC.

# SEVEN STARS ENERGY PROJECT DEVELOPMENT PERMIT APPLICATION

# **NOVEMBER 2025**

To: RM of Weyburn No. 67 1633 1st Ave. NE Weyburn, SK S4H 3E7

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#### 1 Introduction

Seven Stars Energy Limited Partnership<sup>1</sup>, a wholly owned subsidiary of Enbridge Inc. ("Enbridge"), is applying to the Rural Municipality ("RM") of Weyburn No. 67 ("RM of Weyburn") for a permit to develop the Seven Stars Energy Project (the "Project") located approximately 7 kilometers (km) southeast of Weyburn, Saskatchewan. The Project is a commercial wind energy system<sup>2</sup> made up of wind turbines and associated infrastructure, designed with a capacity of 200 megawatts (MW). The electricity generated will be sold to SaskPower under contract for distribution on the Saskatchewan power grid. The Project is anticipated to generate significant local and socioeconomic benefits for the communities within the RM of Griffin No. 66 ("RM of Griffin"), the RM of Weyburn, the City of Weyburn, and to businesses and individuals in areas surrounding the Project.

The overall Project area is comprised of approximately 14,000 acres of land within the RM of Weyburn and approximately 10,000 acres within the RM of Griffin, with only a small fraction of the Project area being used for Project construction activities (577 acres) and ongoing operational activities (48.5 acres). The proposed Project is situated on privately owned agricultural lands on which Enbridge has entered into agreements with the current landowners (Appendix 1-2 and Appendix 1-3 Confidential) and is intended to maintain compatibility with existing agricultural operations.

The Project will provide sustained economic support in the local Weyburn region during both construction and ongoing operation. Enbridge prioritizes hiring local and Indigenous workers, and nearby businesses including hotels, restaurants, and shops are expected to benefit from increased local activity. Where possible, construction materials and services will be sourced from local and Indigenous contractors. The Project will fund improvements to local roads, which will remain as lasting infrastructure enhancements after construction is complete. Once operational, the commercial wind energy system will continue to deliver economic benefits to the community, including jobs, tax revenue, and ongoing support for local programs.

In response to feedback from the RM and community, Enbridge has made significant Project updates and commitments, including:

- Expanding the Project land base in areas with fewer residences to maintain a minimum setback of 1,500 m from residences.
- Increasing the number of benefiting landowners in both RMs.
- Committing to the use of an Aircraft Detection Lighting System and confirming no interference with STARS Air Ambulance operations.
- Committing to covering the cost of necessary road upgrades.
- Commitments related to the decommissioning and reclamation of the Project.
- Designing the Project to meet strict standards for noise and shadow flicker.
- Committing to avoid the use of worker camps.

<sup>1</sup> Enbridge has entered into a letter of intent with six Indigenous Nations to allow for a minimum of 30% of equity ownership of the Project.

<sup>&</sup>lt;sup>2</sup> A Commercial Wind Energy System is made up of wind turbines that utilize wind to generate electricity on a large scale for the power grid.

- Committing to reclaim temporary intersection upgrades used for delivery of equipment during construction.
- Committing to dust control on main delivery routes within the RM during construction.
- Despite no expected impact to water quality, proactively offering well water quality testing to residents within 2 km of a wind turbine.
- Working with both RMs to hire a liaison that will be responsible for ensuring the Project is executed in accordance with the Development Permit, as suggested by the RM of Griffin.
- Committing to an annual community investment that contributes to vibrant, sustainable, and safe communities in the two participating municipalities.

Enbridge will allocate a total annual community investment budget of \$50,000.00 to support initiatives and causes identified by the RM of Weyburn and RM of Griffin, ensuring fair and appropriate distribution in alignment with Enbridge's Corporate Citizenship policy.

Enbridge is confident the Seven Stars Energy Project will bring significant economic and social benefits to the Weyburn and Griffin region, as affirmed by the Province of Saskatchewan's letter of support included in Appendix 1-4.

# 2 Project Description

# 2.1 Project Schedule

Currently the Project is targeting start of construction in Q3 2026, with an in-service date of 2028 (Appendix 2-1). To account for any unforeseen circumstances that may delay the start of construction, Enbridge requests the RM stipulate the development permit is valid for 36 months from the date of issuance of the requested permit, as allowed for under section 3.7.8 of the RM of Weyburn No. 67 Zoning Bylaw 6-2013 ("Bylaw 6-2013").

# 2.2 Project Location

The Project area is located southeast of Weyburn, Saskatchewan, within the RM of Weyburn and the RM of Griffin. It is generally bordered to the south by Highway 39 and to the north by Highway 13 and bisected by the rights-of-way ("ROW") of a SaskPower transmission line. The Project area is entirely within Agricultural Resource District ("AR") zoned land, according to the RM of Weyburn Zoning District Map<sup>3</sup>, in which commercial wind energy systems are identified as a discretionary use in section 7.2(x) of Zoning Bylaw 6-2013<sup>4</sup>. The land is actively used for large-scale crop production and livestock operations within a region characterized by highly productive prairie farmland. Existing structures within the Project area include typical agricultural infrastructure such

<sup>&</sup>lt;sup>3</sup> Rural Municipality of Weyburn No. 67. (2017, April). *Rural Municipality of Weyburn No. 67 Zoning District Map (Bylaw 12-2016)*. Retrieved from <a href="https://www.rmweyburn.ca/wp-content/uploads/2018/11/Zoning-Maps-Website-Update-incl-Bylaw-12-2016-Apr-2017.pdf">https://www.rmweyburn.ca/wp-content/uploads/2018/11/Zoning-Maps-Website-Update-incl-Bylaw-12-2016-Apr-2017.pdf</a>

<sup>&</sup>lt;sup>4</sup> Rural Municipality of Weyburn No. 67. (2021, August). Zoning Bylaw 6-2013 – Consolidated Copy (Zoning Bylaw 6-2013). Retrieved from https://www.rmweyburn.ca/wp-content/uploads/2023/03/ZB-consolidated-August-2021.pdf

as grain bins, machinery storage areas, and established access routes that connect to the regional road network. Photos of the Project area are included in Appendix 2-2.

The Project area was defined based on the availability of wind resources, approximate area required for Project components, and the availability of existing infrastructure to connect to the existing electrical grid. The location of Project components are illustrated in the map books provided in Appendices 2-3 and 2-4. All Project components will be installed on privately-owned lands where land lease agreements have been secured with the respective landowners and will be maintained for the life of the Project.

Due to the progression of investigative work and design, minor refinements have been made to the exact wind turbine locations that were illustrated in the most recent Project Notification Package, distributed to the community in October 2025. All changes were minor in nature and will not have any material impact on the information provided to stakeholders, including information regarding noise and shadow flicker. Setbacks described in section 10 will continue to be maintained.

#### 2.3 Project Components

The Project will include the following components:

- Forty-six (46) 4.5 megawatt (MW) capacity wind turbines located within the RM of Weyburn and the RM of Griffin.
- Access roads to each turbine and the substation
- Underground collection systems
- One (1) substation (RM of Weyburn)
- Two (2) meteorological towers (One meteorological tower in each RM)
- One (1) radar tower (RM of Weyburn)
- Operations and Maintenance Building (RM of Weyburn)
- One (1) temporary construction laydown (RM of Weyburn)
- Temporary construction areas such as workspaces and borrow pits

The following sections describe the Project components in further detail.

#### 2.3.1 Wind Turbines

The Project will utilize a total of 46 utility-scale wind turbines, each rated at 4.5 megawatts (MW). The wind turbines will have a hub height of 98 meters (321 feet) and blades measuring 81.5 m (267 ft), resulting in a total turbine height of 179.5 m (590 ft). Each turbine will include a tower foundation, tower, monopole steel tower, three rotor blades, a hub/nacelle, and built in transformer. The turbine foundations will include a concrete spread-footing foundation with re-bar reinforcement, subsurface preparation, and a concrete pedestal where the tower will connect to the foundation. A rendering of a wind turbine showing the dimensions is provided in Figure 1 and dimensions of wind turbine components is included in Appendix 2-5 Confidential.

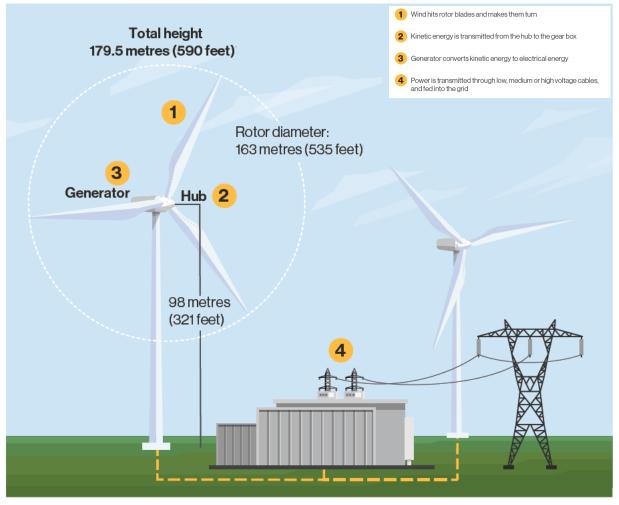


Figure 1: Wind Turbine Rendering

While wind turbines are designed to generate electricity, they require a small amount to operate essential systems and will therefore receive electricity through the underground collector system.

Permanent access roads will be constructed to each wind turbine for construction and ongoing maintenance. No water or sewage facilities will be required.

#### 2.3.2 Alternate Wind Turbine Locations

Located within the RM of Griffin are 4 alternate turbine locations. These locations are being included in the application to the RM of Griffin in the event that any of the preferred locations become unviable during detailed design. The number of turbines in the RM of Weyburn will not exceed 23, and the number of turbines in the RM of Griffin will not exceed 27, with the total number of turbines for the overall Project not exceeding 46.

#### 2.3.3 Substation and Collection System

The substation will be located in the northeast quarter of Section 35 Township 7 Range 13 West of the Second Meridian (NE-35-07-13-W2), within the RM of Weyburn, and will be connected to the wind turbines through a 34.5-kilovolt (kV) underground collection system buried a minimum of 1 m

below ground surface. The purpose of the substation will be to collect power generated from the wind turbines and step it up to 230 kV, allowing the electricity to be efficiently delivered to the provincial grid and distributed to end users. A typical substation layout can be found in Appendix 2-6.

On certain collector routes, the underground collection system will utilize an above ground junction box<sup>5</sup>. The locations of the junction boxes can be found in Appendix 2-4 Pages 22 and 34.

A new gravel access road will be constructed for the substation, which will be designed to accommodate heavy equipment and allow for safe, year-round access for operations and maintenance. This access road will connect to the existing municipal road network and will be constructed in accordance with local engineering standards and environmental best practices.

The substation will be fenced around the perimeter for security reasons and will be designed and constructed with a minimum fence height of 2 m.

Locations of the substation, substation access road, and collection system are illustrated in Appendix 2-3 and 2-4.

#### 2.3.4 Meteorological Towers

As required by SaskPower, two permanent meteorological towers will be located within the Project area, one in SE-22-8-13-W2 in the RM of Weyburn and one in SE-18-7-12-W2 in the RM of Griffin. The purpose of the meteorological towers is to monitor wind for the duration of the Project. The towers will be 95.5 m guyed lattice with the primary anemometer height matching the turbine hub height at 98 m. Anti-climb devices will be used on the towers to prevent unauthorized access. No fence is currently planned to enclose the meteorological towers.

The meteorological towers are illustrated in Figure 2 and the location is shown in Appendix 2-4, Page 1.

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<sup>&</sup>lt;sup>5</sup> A junction box is an electrical enclosure used in wind farms to connect and distribute power from individual turbines. These junction boxes are part of the medium-voltage collector system with the purpose of gathering electricity from individual wind turbines and bringing it back to the substation.

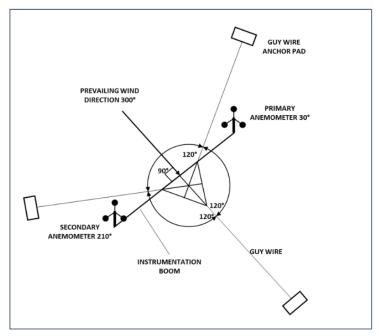


Figure 2: Guyed Lattice Meteorological Tower Illustration

#### 2.3.5 Radar Tower

A radar tower, equipped with an Aircraft Detection Lighting System (ADLS) will be installed in NE-35-07-13-W2 in the RM of Weyburn. The purpose of the radar tower is to ensure obstruction lights on the wind turbines only activate when an aircraft is detected in the vicinity rather than flashing continuously, thereby reducing overall light pollution that may otherwise result from the wind turbines, while also ensuring the wind turbines are visible to approaching aircrafts. The site layout is included in Appendix 2-6 and a photo of a typical radar tower is shown in Figure 3.

The preliminary design includes a 9.14 m (30 ft) tower located near the substation. The radar tower and associated equipment will be surrounded by a 2 m high fence. The proposed location of the radar tower is shown in Appendix 2-4, page 38.



Figure 3: Image of a typical aircraft detection radar tower

#### 2.3.6 Roads and Parking

Access roads will be constructed to each turbine, with upgrades to select RM roads as needed. All proposed road improvements will be developed in consultation with the RMs of Weyburn and Griffin, and Enbridge will cover the cost of any necessary road improvements. A typical RM road upgrade design can be found in Appendix 2-7. These upgrades will provide lasting benefits to the community beyond the completion of the Project. All roads will be constructed according to local engineering standards and environmental best practices and with dedicated entrances connecting directly to RM roads. Enbridge welcomes collaboration with the RM to identify an alternate road plan should the RM prefer something different to what is presented.

Locations and routes of access roads are illustrated in Appendix 2-4. Proposed upgraded RM roads are identified in Appendix 2-3. Illustrations of typical culvert designs to be used for new roads are provided in Appendix 2-8.

All permanent facilities will be designed to provide sufficient space for onsite parking.

The substation design includes an approximately 10-meter graveled apron on the perimeter that will allow for sufficient space for vehicle turnaround and temporary equipment staging, in addition to parking. The apron will be designed to meet safety and accessibility standards.

Enbridge Inc. Seven Stars Energy Project

An approximate 5-meter gravel collar will be constructed around each turbine, providing sufficient space for parking operational vehicles, vehicle turnaround, and temporary equipment staging. The gravel collar will be constructed all in accordance with safety and accessibility standards.

For general flow of the traffic during construction of the Project, Enbridge will develop and implement a Traffic Management Plan in consultation with the RMs prior to starting construction.

#### 2.3.7 Temporary Laydown, Workspaces, and Intersections

During the construction phase, a temporary laydown area will be constructed on non-cultivated lands for the purpose of storing construction materials, tools, and equipment, and for staging and storage of turbine components. It will also serve as a workspace for assembly and pre-installation activities. The laydown area will be centrally located on the SW 1-8-13-W2 in the RM of Weyburn and will be accessible via designated construction routes. Temporary office trailers will be installed; however, no permanent sewer and water services will be required. Appendix 2-9 illustrates the temporary laydown yard and Appendix 2-3, Page 35 identifies the location of the laydown.

Adequate parking will be provided within the designated temporary laydown area to accommodate construction personnel, delivery vehicles, and equipment during the Project construction phase. The laydown area will be sized appropriately to ensure safe and efficient vehicle circulation, with clearly marked zones for staff parking, equipment staging, and material storage. Traffic flow within the laydown area will be managed to maintain safety standards and ensure compliance with occupational health and safety regulations.

Once construction is complete, the laydown area will be fully decommissioned and the land will be reclaimed, in consultation with the landowner and in accordance with commitments made in the Environmental Impact Statement (EIS).

In addition to the laydown area, the Project will require temporary workspaces during the construction, identified in Appendix 2-3. All temporary workspaces will be reclaimed in consultation with the landowner and in accordance with commitments made in the EIS following the completion of construction activities.

To facilitate the transportation of wind turbine components, the Project will require temporary upgrades to select intersections along the delivery route within the RM, including widening turning radii. These modifications are specifically designed to accommodate the unique dimensions and turning requirements of turbine components such as blades, nacelles, and tower sections. All temporary intersection upgrades are identified in Appendix 2-3.

All intersection upgrades are temporary and will be reclaimed once construction is complete. Restoration will be carried out in accordance with applicable municipal and provincial standards to ensure minimal long-term impact on local infrastructure and land use.

All use of private land for these temporary upgrades is limited to parcels where agreements have been signed for the Project. No unpermitted access or use of private property is included in the design.

# 2.3.8 Operations and Maintenance Building

An operations and maintenance building will be required to support the ongoing operation of the Project. Current plans propose an 18-by-45 m (810 m²) main building that will include offices, a control room, truck bays, a small warehouse, and a fenced yard. The operations and maintenance building will be a requirement for the operation of the Project and will be the subject of a future development permit application when specific site plan details have been prepared. The preliminary location of the operation and maintenance building can be found in Appendix 2-4, Page 38.

#### 2.4 Borrow Pits

The Project expects to balance fill from within the Project area boundary, with no fill anticipated to be sourced externally. Where necessary to support the construction of access roads, borrow pits will be established to source suitable aggregate and fill material for intersection upgrades and road upgrades. All fill material will be sourced exclusively from land where landowners have entered into agreements with the Project, and all sourcing activities will be conducted in close consultation with the respective landowners. Aggregate from borrow pits will be used to ensure road surfaces meet engineering and environmental standards, particularly in areas requiring elevation adjustments, drainage improvements, or reinforcement for heavy equipment access.

All borrow pits associated with the Project will be located exclusively on private land and/or within the public rights of way directly adjacent to all new access road entrances and intersections improvements, with landowner consent and in accordance with applicable provincial and municipal requirements. Their placement will be selected to minimize environmental impact, avoid sensitive habitats, and reduce transportation distances for construction materials.

Each borrow pit will be reclaimed following construction in consultation with the landowner and aligned with applicable regulations and best management practices. Monitoring and mitigation measures will be implemented to manage erosion, dust, and runoff during operation.

#### 2.5 Screening and Fencing

Enbridge is not currently planning screening for permanent Project components, including turbines, substation, radar tower, and operations and maintenance building. The Project has been purposefully sited within areas of existing anthropogenic disturbance, with more than 90% of the construction activities proposed within agricultural lands including annual crop, hay, and grazed pasture lands. Extensive surveys have been completed to map existing land cover and identify the potential presence of rare or sensitive vegetation species. This information has been used to minimize potential impacts to native vegetation, including full avoidance of native grasslands.

Given the negligible removal of native vegetation, large-scale landscaping and screening are not currently planned.

To limit the overall footprint of each wind turbine, Enbridge is not proposing to construct fencing at the base of the turbine. Modern tower designs have a base of approximately 4.5 m in diameter with a locked door and will be secure from damage or tampering without requiring the added footprint of a perimeter fence.

The substation and radar tower will have a perimeter fence that will be at least 2 m high.

#### 2.6 Interconnection

SaskPower will be responsible for all required facilities to interconnect the Project to the existing SaskPower grid. All facilities and infrastructure required for interconnection, including a switching station, are not a part of this application.

### 3 Engineering Certification and Electrical Permit

Enbridge will submit all required engineering documentation to the RM before construction begins. The Electrical Permits for the collection system, meteorological towers, and substation will be applied for at least 90 days prior to the start of the related electrical work.

The wind turbine supplier will provide a manufacturer's engineering certificate of structural safety, along with certification from a Saskatchewan Professional Engineer. These documents are currently being secure and are expected to be available within 8 weeks. A letter from the supplier outlining the anticipated timeline is in Appendix 3-1.

Installation plans, including concrete and anchoring specifications, will be certified by a Saskatchewan Professional Engineer and must receive RM approval. These plans pertain to the turbine foundations. Enbridge anticipates that engineer-stamped foundation drawings will be prepared by July 2026, and requests that their submission be a condition of the development permit to be satisfied before construction begins. Borea Construction, the selected Engineering, Procurement, and Construction contractor, has provided a letter detailing the anticipated timeline for the deliverables in Appendix 3-1. Electrical Permits from SaskPower will also be obtained and submitted to the RM. These permits can only be acquired once the design is approximately 90% complete, and related work must commence within 90 days of permit issuance. Therefore, a permit cannot be provided to the RM until electrical work is forthcoming. Enbridge requests that submission of these permits be included as a condition of the development permit that must be satisfied prior to initiating the related electrical work. Borea Construction has provided a letter with the anticipated timeline for these deliverables in Appendix 3-1.

Enbridge will provide regular updates to the RMs on the design process, ensuring they are informed of the timing and status of all required engineering certifications.

# 4 Regulatory, Environment, and Socio-Economic Factors

#### 4.1 Regulatory

In addition to the RM development permit process, commercial wind energy systems like the Project are subject to careful and detailed evaluation through the provincial environmental assessment process, which involves an assessment of potential environmental, socio-economic, and cultural effects. This includes potential impacts to wildlife, vegetation, wetlands, acoustic environment, land use, and heritage resources, and the development of related mitigation measures. This process and the status are further described in Section 4.2.

The Project is also subject to various other regulatory requirements, including Transport Canada's Aeronautical Act and NAV CANADA's Land Use Program, which regulate proposed structures that

may be considered obstructions to air navigation. A listing of potential regulatory requirements for the Project is included in Appendix 4-1.

#### 4.2 Environment

The Project is subject to *The Environmental Assessment Act*, which requires the preparation and approval of Terms of Reference (TOR) and an Environmental Impact Statement (EIS). Approval by the Minister of Environment under this *Act* will require the Project to be constructed and operated in accordance with the commitments and mitigation measures outlined in the EIS. As part of the EIS preparation, Enbridge has implemented a comprehensive environmental assessment program to identify and characterize environmentally sensitive areas, wetlands, sensitive species observations, and other protected and/or sensitive features within the Project Area. The findings will be detailed within the EIS, which will include a robust mitigation strategy designed to avoid, mitigate, and/or minimize potential environmental impacts. Additionally, the EIS will outline a follow-up monitoring program to validate its conclusions and ensure adaptive management measures are implemented if unforeseen impacts arise.

The TOR has been prepared by Enbridge and accepted by the Saskatchewan Ministry of Environment's Environmental Assessment and Stewardship Branch (EASB). This TOR, available through the Government of Saskatchewan's Publications Centre<sup>6</sup>, describes the environmental features being studied and the methodologies employed.

Field surveys were conducted between September 2023 and October 2025, and the resulting data will form an integral part of the environmental impact assessment. Enbridge intends to submit the EIS to the EASB by early 2026.

Preliminary mapping results from the Noise Impact Assessment and Shadow Flicker Assessment are presented in Appendix 4-2, with full reports to be included in the EIS. Further details on the environmental studies and assessment process can be found in the TOR.

While Enbridge would not be permitted to proceed with the Project in the absence of the required Ministerial approval, for clarity, the RM may choose to make the development permit conditional on the Project receiving the necessary Ministerial approval under *The Environmental Assessment Act*.

#### 4.3 Heritage Resources

Enbridge received a Heritage Resource Review for the development area from the Saskatchewan Heritage Conservation Branch in August 2025. While the Heritage Resource Review identified no known heritage sites, it identified select undisturbed lands as heritage sensitive and therefore a Heritage Resource Impact Assessment (HRIA) will be conducted prior to the start of construction in compliance with *The Heritage Property Act* (Saskatchewan).

#### 4.4 Socio-economic Factors

The Project has been designed with a strong commitment to protecting the health, safety, convenience, and general welfare of residents and landowners in the surrounding area. In accordance with the applicable municipal bylaw, the Project incorporates a 1500 m setback from

<sup>&</sup>lt;sup>6</sup> The Seven Stars Energy Project Terms of Reference is available to view in the Publications Centre - https://publications.saskatchewan.ca/#/categories/6438

all residences where the property owner is not hosting a turbine — a distance that is among the largest setback requirements for commercial wind energy systems in the province. This buffer significantly reduces potential impacts related to noise, shadow flicker, and visual presence. Assessments related to noise and shadow flicker are further described in section 6.3 and 6.4, respectively. The Project will also comply with all provincial and municipal safety standards, including those related to construction, electrical infrastructure, and emergency response. Agricultural activities will continue on the majority of the land, and the development will not interfere with existing or future land uses in the vicinity.

The Project is expected to contribute to the local Weyburn economy throughout the Project's lifetime. Construction is planned to start in Q3 2026 and continue until 2028, employing an average of 100 workers, with up to 200 peak workers expected, and generating an estimated \$75 million in labour spending. Local businesses in Weyburn and surrounding areas are expected to benefit from increased demand for lodging, food services, and entertainment, as no worker camps will be provided. Additionally, \$20–\$40 million in contracting opportunities will be available, with Enbridge encouraging the use of qualified local contractors. Infrastructure improvements, such as rural road upgrades, will be funded by Enbridge and remain as lasting benefits to the community.

Once operational, the Project is estimated to generate over \$100 million in economic benefits, including \$800,000 annually in tax revenue for local municipalities and provincial education, totaling \$25–30 million over the Project's life. Enbridge also plans to establish a local operations base and contribute to community programs through its Fueling Futures initiative, supporting sustainability, diversity, and safety. The Project will create full-time jobs with annual salaries ranging from a total of \$400,000 to \$800,000 and invest \$500,000–\$650,000 annually in third-party services for operations. Enbridge's long-standing presence in Saskatchewan and commitment to community engagement further reinforce the Project's potential for sustained regional development.

#### 5 Reclamation and Decommissioning

All temporary footprints used during construction activities, including temporary laydowns and workspaces, will be reclaimed following construction activities. Reclaimed areas will be monitored for undesirable, invasive, and weed species, ensuring compliance with the *Weed Control Act*.

As the Project approaches the end of its operational life, Enbridge will assess whether to repower or decommission the Project components. Repowering may involve upgrading the turbines with new or refurbished nacelles, towers, and blades to extend their lifespan, or fully replacing turbines and foundations. Typically, substation and transmission infrastructure will remain in place and be refurbished as these components generally outlast wind turbine equipment. If repowering is pursued, a new development permit application will be submitted at that time.

If the Project has been determined to have reached end-of-life, Enbridge will proceed with decommissioning and reclamation (Appendix 5-1). A conceptual decommissioning and reclamation plan will be included with the EIS, providing additional details on reclamation activities. All costs associated with decommissioning and reclamation efforts will be covered by Enbridge.

Further information regarding decommissioning and reclamation is provided in the following sections.

# 5.1 Decommissioning Plan

At the decommissioning stage, the Project will undergo a systematic process to safely dismantle and remove all major infrastructure. This includes disconnecting and de-energizing the facility, dismantling wind turbines, access roads, substations, and meteorological towers. The land will be reclaimed in consultation with landowners and will align with regulations of the day. Turbine components will be removed, and foundations excavated to at least 1 m below ground level. All materials will be recycled, resold, or disposed of at approved facilities. To minimize environmental impact, underground electrical lines will generally remain in place, while above ground structures will be fully removed. The entire process will be carefully sequenced in accordance with best practices at the time of decommissioning, implementing environmental protection measures and in full compliance with applicable regulations.

A conceptual Decommissioning Plan Report is included in Appendix 5-2.

#### 5.2 Reclamation Plan

End-of-life reclamation will occur following the decommissioning of Project components. A detailed reclamation plan will be developed and implemented at the time of decommissioning based on landowner consultation and applicable regulations at the time.

Specific methods for final reclamation will vary based on the pre-existing land cover, current use, and vegetation species present, but is expected to include localized grading to match surrounding contours, replacement of soil layers, and seeding or revegetating as appropriate. As with temporary disturbances, reclaimed areas will be monitored and managed for weed species, in compliance with the *Weed Control Act*.

The conceptual Decommissioning Plan Report (Appendix 5-2) includes a plan for reclamation.

#### 6 Completed Studies

To date, studies completed for the Project include a Hydrology Study, a Preliminary Geotechnical Study and the initial Historical review (section 4.3). Preliminary studies include the Noise Assessment and Shadow Flicker Assessment, results of which were shared in the October 2025 notification package to area residents (Appendix 4-2).

The TOR includes additional information related to the environmental studies being conducted as part of the environmental impact assessment. Assessment results, including appropriate mitigation measures, will be included in the EIS.

#### 6.1 Hydrology Study

A Hydrology Study has been completed to assess the surface water and drainage characteristics of the Project area. This study evaluates existing watershed boundaries, surface runoff patterns, and potential impacts of development on local hydrological systems. Key components include rainfall and snowmelt modeling, flood risk analysis, drainage infrastructure assessment, and recommendations for erosion control and stormwater management. The study will support Project

compliance with environmental regulations and provide mitigation measures to reduce impacts on surrounding land and water resources. The Hydrology Report is attached in Appendix 6-1.

# 6.2 Geotechnical Survey

# 6.2.1 Preliminary Geotechnical Survey

WSP Canada Inc. conducted preliminary geotechnical survey in 2024, utilizing borehole drilling, laboratory testing, and site-wide analysis to assess geology and groundwater conditions. The investigation identified predominantly clay till and sand soils with variable plasticity, confirming that the site is generally suitable for wind turbine development (Appendix 6-2). Gravity base foundations embedded below frost depth were found to be feasible for the Project. A copy of the Preliminary Geotechnical Report can be found in Appendix 6-2.

# 6.2.2 Comprehensive Geotechnical Survey

A comprehensive geotechnical survey is currently underway, based on the permitting layout outlined in this application. The results of this program will be provided to Enbridge in a report expected by early 2026.

#### 6.3 Noise

A Noise Impact Assessment and Shadow Flicker Assessment are being conducted by a third-party consultant and the full reports will be included in the EIS. Preliminary map results have been shared in the October 2025 notification package to area residents. Minor refinements made to wind turbine locations since distributing the October 2025 notification package did not change the conclusions of the assessment. Updated preliminary mapping results can be found in Appendix 4-2.

The Noise Impact Assessment submitted as part of the EIS will consider the effects of Project operational activities on the acoustic environment, specifically proximity to turbine and substation locations. While Saskatchewan has no formally issued guidelines for the assessment of noise impacts from wind energy projects, some recent wind energy projects in Saskatchewan have followed the Alberta Utilities Commission (AUC) Rule 012: Noise Control<sup>7</sup>. This guideline is used widely in Alberta, which has similar acoustic environment, terrain, land uses, population distribution, and general demographics to Saskatchewan. The guidelines also represent one of the most stringent noise guidelines in North America as it relates to wind energy projects. The EIS will characterize the existing acoustic environment at the Project in accordance with the AUC Rule 012, including the determination of existing ambient sound levels for the Project. In addition, the turbine manufacturer will be held to a stringent sound emission warranty that mitigates the risk of irregular sound output.

In the event of potential noise concerns, post construction noise monitoring can be implemented to assess the source. If it is determined that the turbines are causing the noise level at a residence to be above 40 A-weighted decibels, Enbridge will assess options for noise mitigation.

<sup>&</sup>lt;sup>7</sup> Alberta Utilities Commission. (2024, June 5). Rule 012: Noise Control (Effective September 30, 2024). https://media.auc.ab.ca/prd-wp-uploads/regulatory\_documents/Consultations/Rule012.pdf

#### 6.4 Shadow Flicker

Shadow flicker occurs when the spinning rotor of the wind turbine is located between the sun and an observer, and the turbine blades alternatively block and allow the sunlight to shine through. When viewed from a stationary position, these moving shadows cause periodic flickering of the sunlight, otherwise known as the "shadow flicker" phenomenon. This typically occurs for short periods during specific times of the day and year, depending on the turbine's location, orientation and the observer's position.

Shadow flicker analysis uses a computer model to calculate an estimate of potential flicker effects at various locations. In this case, estimates will be calculated for nearby residences. A conservative distance limit for shadow perception will be used and will be defined as ten times the turbine hub height plus blade length. Beyond this range, flicker is no longer perceptible as a "chopping" of sunlight but rather as a short-term obstruction.

Two scenarios are modeled – a "worst case" scenario assuming full sunlight and constant turbine operation, and an "expected case" which factors in cloud cover and site-specific wind data. While the worst-case scenario is considered in the assessment, the results from the expected case are compared to industry best practice limit of less than 30 hours per year of shadow flicker. The expected case results still reflect a relatively conservative estimate as the model does not consider vegetation, building orientation, or turbine downtime, all of which could substantially reduce flicker duration under real-world conditions.

Due to the large setbacks of the turbines, early results indicate residences in the Project area are expected to experience far less than the industry best practice of 30 hours per year of shadow flicker.

# 7 Engagement

Enbridge undertook a comprehensive consultation program for the Project, engaging more than 700 interested parties, including adjacent property owners, residents, occupants, and other interested parties within a 5.0 km radius in the RM of Weyburn and an 8.0 km radius in the RM of Griffin.. Consultation occurred utilizing various methods, including in-person meetings, phone calls, emails, information packages, and open house meetings. A detailed engagement report is included in Appendix 7-1.

Common concerns raised during the engagement included topics such as noise, shadow flicker, health, property value, and groundwater. Enbridge's evaluation and response to concerns regarding noise and shadow flicker are summarized in section 6.3 and 6.4. The following sections summarize Enbridge's response to other common concerns expressed during engagement.

# 7.1 Health and Low Frequency Noise

Numerous health studies conclude that wind turbines do not cause negative health impacts to those living near wind turbines when constructed properly and at an appropriate setback distance.

In 2014, Health Canada conducted the largest study<sup>8</sup> in the world of people living, working and playing near wind turbines. The study found no evidence of an association between exposure to wind turbine noise and the prevalence of self-reported or measured health effects.

The Health Canada study is the largest and most comprehensive study on the relationship between wind turbines and human health and, as a result, continues to be recognized as a reference point for wind projects around the world. These same Health Canada findings are supported by more recent US<sup>9</sup>, Australian<sup>10</sup> and European studies<sup>11,12</sup>.

Infrasound is sound below a frequency of 20 hertz (Hz) and low frequency noise is between a frequency of 10 Hz and 200 Hz. Studies suggest that health-based audible noise wind turbine siting guidelines, such as the 40 dBA limit used in the siting of the Project, provide an effective means to protect potential receptors from audible noise as well as infrasound and low frequency noise<sup>13</sup>.

#### 7.2 Groundwater

Enbridge has not identified potential risks to domestic drinking water within or adjacent to the proposed Project components. However, to alleviate concerns expressed by some local residents, Enbridge will offer water quality testing on domestic drinking water sources at or within 2 km of a wind turbine. If a resident indicates they want to proceed with the offered water quality testing, Enbridge will coordinate collection of a water sample from the source approximately 2-6 weeks before construction and again following construction completion. The sample will be collected by a third-party consultant with water quality expertise and will be sent to an accredited lab for analysis. The sample will be tested for typical water well testing parameters including E.coli and total Coliform bacteria, nitrate, major ions, trace metals, hardness, pH and conductivity. If a resident(s) has any specific concerns not addressed by these testing parameters, additional testing may be considered to further alleviate any specific concerns.

# 7.3 Fiberglass Shedding

Enbridge has been asked about the potential for fiberglass shedding from turbine blades. Paint and coating materials are applied to the turbine blades to protect the underlying composite materials

<sup>&</sup>lt;sup>8</sup> Health Canada. Wind Turbine Noise and Health Study: Summary of Results. Retrieved from https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/everyday-things-emit-radiation/wind-turbine-noise/wind-turbine-noise-health-study-summary-results.html

<sup>&</sup>lt;sup>9</sup> Ohio Department of Health. (2022, April 12). Wind Turbines and Wind Farms: Summary and Assessments. Retrieved from https://ohiodnr.gov.

<sup>&</sup>lt;sup>10</sup> National Health and Medical Research Council (Australia). (2015, February). Evidence on Wind Turbines and Human Health: NHMRC Statement and Information Paper. Commonwealth of Australia, Canberra. 46 p. Retrieved from https://www.nhmrc.gov.au/health-advice/environmental-health/wind-farms.

<sup>&</sup>lt;sup>11</sup> van Kamp, I., & van den Berg, F. (2021, August). Health effects related to wind turbine sound: An update. International Journal of Environmental Research and Public Health, 18(17), 9133. https://doi.org/10.3390/ijerph18179133.

<sup>&</sup>lt;sup>12</sup> Rosciszewska, A., Buszkiewicz, M., Dobrzynska-Kobylec, G., et al. (2025). Cognitive neuroscience approach to explore the impact of wind turbine noise on various mental functions. Humanities and Social Sciences Communications, 12, 296. https://doi.org/10.1057/s41599-025-04645-x.

<sup>&</sup>lt;sup>13</sup> Health-Based Audible Noise Guidelines Account for Infrasound and Low-Frequency Noise Produced by Wind Turbines. (2015). Environmental Health Perspectives, 123(2). https://pmc.ncbi.nlm.nih.gov/articles/PMC4338604/

that make up the remaining blade. Regular maintenance is conducted on the turbines to ensure safe and efficient operation. Fiber glass shedding has never been observed by the Enbridge team with more than 20 years' experience in commercial wind energy systems.

# 8 Emergency Response Planning

Emergency Response Planning for the Project is structured in two distinct phases: the Construction Emergency Response Plan ("C-ERP") and the Operational Emergency Response Plan ("O-ERP"). Both plans are designed to ensure a rapid and effective response to a range of emergency situations, including fire, medical incidents, rescues, spills, severe weather, and other critical events.

The C-ERP addresses all emergency preparedness and response activities from the start of construction through to the handover of the site to the operations team. Key elements include emergency preparedness protocols, defined roles and responsibilities, hazard-specific procedures, site security, STARS registration, hazardous materials management, mock drill planning, contact lists, first aid provisions, and transportation plans to nearby medical facilities.

The C-ERP will be developed prior to the start of construction in consultation with local emergency services. The C-ERP will be shared with the RMs prior to the start of construction.

Once the Project is operational, the O-ERP governs emergency procedures from the start of operations and continues throughout the asset's lifecycle. The O-ERP covers overall purpose, defined roles, community considerations, emergency and severe weather procedures, asset mapping, STARS information, site security, medical transport, post-shutdown recovery, and spill response.

The O-ERP will be developed prior to the start of operations of the facility in consultation with local emergency services. The O-ERP will be shared with the RM prior to the start of operations of the Project.

# 9 Conformance

Saskatchewan is experiencing a clear and growing demand for new energy infrastructure, driven by SaskPower's long-term strategy to meet growing electricity demand and reduce greenhouse gases. The Project directly supports these provincial objectives by delivering approximately 200 MW of renewable wind power to the Saskatchewan grid, helping the province meet growing electricity demand, reducing emissions through renewable energy while maintaining compatibility with ongoing agricultural operations. This approach enables efficient and responsible project delivery, with minimal impact on surrounding land uses.

The Project's design and siting are fully aligned with all relevant sections of the RM of Weyburn Official Community Plan ("Community Plan"). By locating the Project in AR Zoning Districts, the Project maintains harmony with existing agricultural operations and avoids adverse effects on crop production. Furthermore, the Project is expected to generate long-term economic benefits for local communities and landowners, consistent with both provincial and municipal objectives for sustainable development. There are lease agreements with landowners for all lands that will be

used for the Project, reflecting the landowners interest in participating in the Project and receiving the direct benefits that the Project creates.

Enbridge has also taken significant steps to develop a Project layout that conforms with the Zoning Bylaw RM of Weyburn 6-2013. Conformance with bylaw requirements is described in the following sections.

# 9.1 Wind Turbines Conformance

A summary of the setback requirements described in Bylaw 6-2013 and the Project setbacks is provided in Table 1.

Table 1: Summary of Project setbacks and conformance with the RM of Weyburn Bylaw\*

Setback Type	Required Setback*	Minimum Project Setback
Setback from residences – Non- participating	1500 m**	1500 m setback from all non-participating residences.
Setback from residences – Participating	1000 m***	1000 m setback from all participating residences
Setback from property line – Non- participating	Height of wind energy system, plus 50 m**	230 m setback from property lines (total height of wind turbine + 50 m)
Setback from property line – Participating	Council may consider lesser separation distance where agreement is in place.**  The Enbridge agreements with participating landowners allows for reduced setbacks from property lines. The reduced setbacks were calculated based on blade length plus 10 m. This setback distance prevents any overhang of a property line. Neighbouring participating landowners are compensated for the reduced setback for the life of the facility, regardless of whether infrastructure is located on their land. This compensation also extends to future property holders if the land is sold.	91.5 m from participating property lines (length of blade + 10 m)
Setback from an intersection of any municipal road allowance, or Provincial highway	90 m**	Road allowance - 189.5 m (Total Height plus 10 m) Provincial Highway - 197.5m (Total Height x 1.1)
The Setback to Municipal road allowances	Blade length plus 10 m 91.5m (81.5m blade length + 10.0m)	189.5 m (Total Height plus 10 m)

<sup>\*</sup> Rural Municipality of Weyburn No. 67 Zoning Bylaw 6-2013 – Consolidated Copy (Zoning Bylaw 6-2013)

<sup>\*\*</sup> Section 5.12 of Zoning Bylaw 6-2013

<sup>\*\*\*</sup> Section 5.13 of Zoning Bylaw 6-2013

# 9.2 Other Project Components Conformance

The Project substation fence and radar tower fence will maintain a setback of 46 m from the centerline of any developed road.

The Project collector system will cross all road allowances at 90 degrees, as required by the RM of Weyburn RM Road Crossing Policy. Furthermore, the underground collector lines will not deviate within the boundaries of a road allowance, and will instead run perpendicular for 30 m prior to any deviations outside of road allowance boundaries.

#### 10 Conclusion

The Seven Stars Energy Project represents a significant opportunity for the Rural Municipality of Weyburn to advance renewable energy infrastructure while supporting local economic growth and maintaining compatibility with existing agricultural operations. The Project will deliver approximately 200 MW of wind power to the Saskatchewan grid, directly supporting provincial renewable energy targets and contributing to the long-term sustainability of the region.

Throughout the planning and design process, Enbridge has prioritized community engagement, environmental stewardship, and regulatory compliance. The Project layout and operational plans have been carefully developed to conform with all relevant sections of the RM of Weyburn Official Community Plan and Zoning Bylaw 6-2013, including stringent setback requirements, safety standards, and mitigation measures to protect residents, landowners, and the environment. Extensive consultation and environmental studies have informed a robust mitigation strategy, and the Project will be constructed and operated in accordance with the commitments outlined in this application and in the EIS.

The Project is expected to generate substantial economic benefits for the local community, including job creation, increased demand for local services, infrastructure improvements, and significant tax revenue for municipalities and education. The Project's design ensures minimal impact on agricultural land use, with temporary construction footprints fully reclaimed and long-term operations integrated into the existing landscape.

In summary, the Project aligns with municipal and provincial objectives for sustainable development and delivers meaningful benefits to the community. Approval of this development permit will enable the RM of Weyburn to play a leading role in Saskatchewan's renewable energy future, while safeguarding the interests of residents, landowners, and the environment.