Application to the Alberta Utilities Commission

Togo Lake Solar & BESS Project

Power Plant, Substation & Energy Storage System Application

September 5, 2025

List of Appendices

Application Introduction

Togo Lake Solar Inc., (the Proponent) a wholly-owned subsidiary of Enerfin Energy Company of Canada Inc. is proposing to construct and operate the Togo Lake Solar & BESS Project (the Project). The Project includes a 400-megawatt (MW) solar power plant and a 200MW/400 megawatt-hour (MWh) battery energy storage system (BESS). Based on the preliminary design, the solar facility includes approximately 698,500 solar photovoltaic modules installed on a single axis tracking system, 94 inverter/transformer stations, an electrical collection system, internal access roads and the construction of a Project substation to connect to the Alberta Interconnected Electric System (AIES). The Project will be connected to the Alberta Interconnected Electric System (AIES) through an existing 240 kilovolt (kV) transmission line that runs through the Project area.

The Proponent is seeking approval from the Alberta Utilities Commission (AUC) to construct and operate the Project in accordance with Sections 11, 13.01, 14, and 15 of the Hydro and Electric Energy Act (HEEA).

All communication regarding this application should be directed to:

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Dated at the City of Calgary, in the Province of Alberta, this 5th day of September 2025.

Signed by:

Morgan Grab
Project Manager, Development

Executive Summary

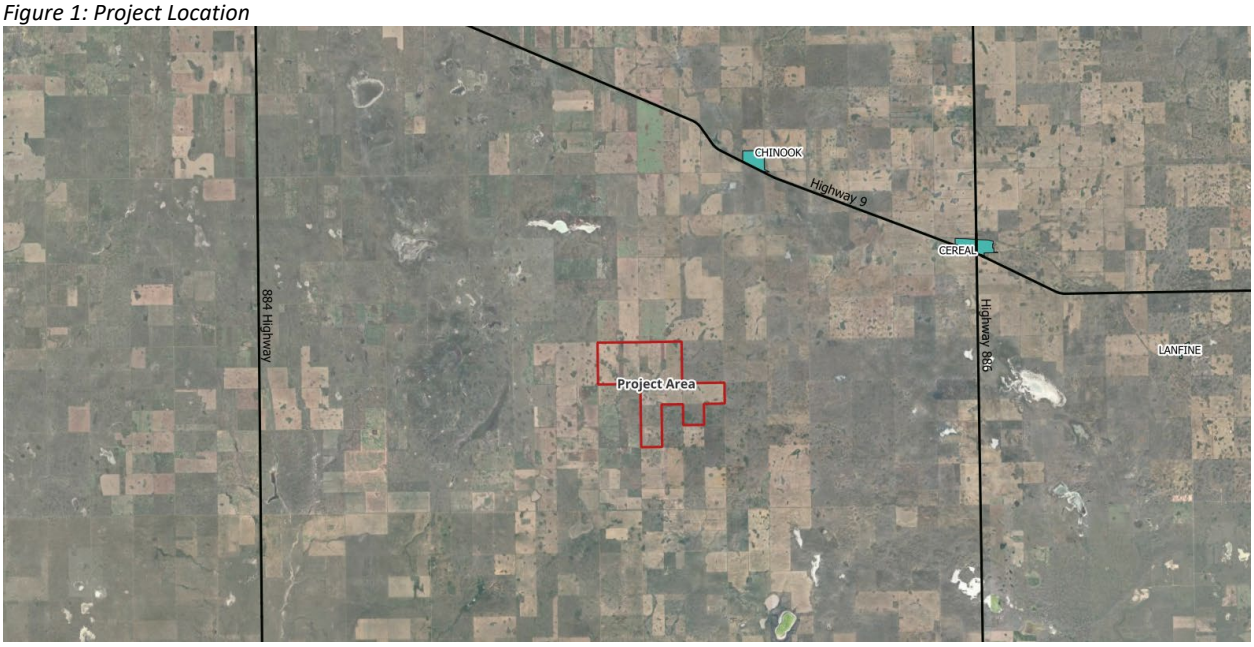
Project Overview

Togo Lake Solar Inc., (the Proponent) a wholly-owned subsidiary of Enerfin Energy Company of Canada Inc. is proposing to construct and operate the Togo Lake Solar & BESS Project (the Project) located on freehold, cultivated land in Special Area No. 3. The proposed Project will consist of approximately 698,500 solar photovoltaic modules installed on a single-axis tracking system, with a grid capacity limit of 400MW. The Project also includes 94 SunGrow inverters (Sungrow SG4400UD-MV-US), an electrical collection system, internal access roads, a BESS (comprised of 104 Tesla Megapack 2XL BESS units and 56 FP4200M inverters) and the construction of a Project substation to connect to the Alberta Interconnected Electric System (AIES). The BESS has a capacity of 200MW and a storage capacity of 400MWh. The BESS will charge from the solar facility and discharge to the AIES.

Project Location

The proposed Project is located on the lands identified in the table below on approximately 1,970 fenced acres (797.23 hectares) of privately owned, cultivated land approximately 7.2km southwest of the Hamlet of Chinook, as shown in Figure 1.

Figure 1: Project Location



The Project is located on the following lands:

Table 1: Project Lands

Section 12-28-8 W4M	Section 7-28-7 W4M
NW, NE and SW 6-28-7 W4M	NW, NE and SW 5-28-7 W4M
NW 31-27-7 W4M	

Project Schedule

The preliminary Project schedule is as follows:

Table 2: Preliminary Project Schedule

Initial Public Notification	June 2025

Personal Consultation	Ongoing
Submission to Alberta Environment & Protected Areas	February 2025
AEPA Referral Report Received	March 2025
AUC Applications	September 2025
Anticipated AUC Approval	January 2026
Municipal Development Permit Application	January 2026
Municipal Development Permit Approval	March 2026
Construction Start	Spring 2027
Commercial Operation Date	Summer 2028

In order to maintain this schedule, approval of this Application is required by January 31, 2026.

Corporate Information

Enerfin Energy Company of Canada Inc. is the Canadian arm of the Enerfin Group which promotes, develops, constructs, and operates wind and solar energy projects globally.

Enerfin Energy Company of Canada Inc. is currently managing the development and operation of over 1,000 MW of wind and solar power projects in Quebec, Saskatchewan and Alberta. It performs the integrated management of projects involving investment in renewable energy by using all its human, technical and financial skills and getting involved in all the stages, from development and construction to operation and energy sales management. In recent years, it has expanded its activity to include solar and battery energy storage developments. In Alberta, Enerfin Energy Company of Canada Inc. owns and operates the Winnifred Wind Project near Medicine Hat and is in advanced development of two other solar projects in the province, apart from the Togo Lake Solar & BESS Project.

List of Acronyms

ACO	Aboriginal Consultation Office
AEPA	Alberta Environment and Protected Areas
AESO	Alberta Electric System Operator
AGRASID	Alberta Soil Inventory Database
AIES	Alberta Interconnected Electric System
AUC	Alberta Utilities Commission
BESS	Battery Energy Storage System
ERP	Emergency Response Plan
HEEA	Hydro and Electric Energy Act
HRA	Historical Resources Act
HV	High Voltage
ISD	In-service Date
ISO	Independent Systems Operator
km	Kilometre
kV	Kilovolt
LOTO	Lockout/Tagout
LSD	Legal Subdivision
LSRS	Land Suitability Rating System
LUB	Land Use Bylaw
m	Metres
MDP	Municipal Development Plan
MW	Megawatt
MWac	Megawatts alternating current
MWh	Megawatt Hours
NIA	Noise Impact Assessment
PCB	Polychlorinated Biphenyls
PIP	Participant Involvement Program
PPE	Personal Protective Equipment
PV	Photovoltaic
REO C&R	Renewable Energy Operations Conservation and Reclamation
SSSGRAIN	Spring-Seeded Small Grains
TFO	Transmission Facility Owner

Power Plant Application

Project Description

SP1 – Requested Approvals
State the approvals that are being applied for from the AUC and describe the power plant and collector system including:

- **Number of solar photovoltaic panels.**
- **Total capability of the power plant in megawatts (MW).**
- **Make, model and the nominal capability of each solar-powered generator in MW.**
    - **If the vendors have not been selected or the equipment has not be finalized, provide the anticipated type and number of solar modules, the physical dimensions of the solar array and the type of solar tracking system, if applicable.**

The Proponent is requesting the following approvals:

- Construct and operate a power plant pursuant to Section 11 of the Hydro and Electric Energy Act, c H-16, R.S.A. 2000 (the HEEA), as amended; and
- Construct and operate the associated Project substation pursuant to Sections 14 and 15 of the HEEA, as amended.

The proposed Project consists of approximately 698,500 solar photovoltaic modules mounted on a single-axis tracking system, 94 SunGrow inverters (Sungrow SG4400UD-MV-US), a 240 kV Project collector substation, underground collector lines that connect to the Project substation and an internal road network. The total capability of the power plant is 400 MWac. The site layout is included as **Appendix A**. Please note that the Alberta Electric System Operator (AESO) advised that the Project collector substation name has not yet been assigned. Details of the battery energy storage facility are included in the Energy Storage Application section.

SP2 – Existing Approvals
Provide a list of existing approvals for facilities directly affected by this project, if any.
There are no existing approvals directly affected by this Project.

SP3 – Ownership Structure
Provide details of the project ownership structure, including the names of all companies having an ownership interest in the project and their ownership share, and if applicable, the name of the project operator. Confirm that the applicant is a qualified owner.
The Project is 100% owned by Togo Lake Solar Inc. The certificate of incorproation is included as **Appendix B**. To confirm, the applicant is a qualified owner.

SP4 – Municipal Interest
For a municipality or a subsidiary of a municipality to hold an interest in a generating unit, provide documentation confirming compliance with Section 95 of the *Electric Utilities Act*.
Not applicable as there is no municipal interest in the Project.

SP5 – Project Location
Describe the location of the project:

- **Provide the legal description of the proposed power plant site (legal subdivision [LSD], section, township, range, meridian and/or plan, block, lot, municipal address for urban parcels) and connection point, if applicable.**
- **Provide a Keyhole Markup Language (.kml/.kmz) file that contains the geographic data of each of the major components, including substation locations and project boundary of the proposed power plant. This file should reflect the information shown on the drawings and maps submitted to address information requirement SP6.**

The proposed Project is located in the following LSD's:

LSD	Section	Township	Range	Meridian		LSD	Section	Township	Range	Meridian
11	31	27	7	4		12	31	27	7	4
13	31	27	7	4		14	31	27	7	4
3	5	28	7	4		4	5	28	7	4
5	5	28	7	4		6	5	28	7	4
9	5	28	7	4		10	5	28	7	4
11	5	28	7	4		12	5	28	7	4
13	5	28	7	4		14	5	28	7	4
15	5	28	7	4		16	5	28	7	4
3	6	28	7	4		4	6	28	7	4
5	6	28	7	4		6	6	28	7	4
9	6	28	7	4		10	6	28	7	4
11	6	28	7	4		12	6	28	7	4
13	6	28	7	4		14	6	28	7	4
15	6	28	7	4		16	6	28	7	4
1	7	28	7	4		2	7	28	7	4
3	7	28	7	4		4	7	28	7	4
5	7	28	7	4		6	7	28	7	4
7	7	28	7	4		8	7	28	7	4
9	7	28	7	4		10	7	28	7	4
11	7	28	7	4		12	7	28	7	4
13	7	28	7	4		14	7	28	7	4
15	7	28	7	4		16	7	28	7	4
1	12	28	8	4		2	12	28	8	4
3	12	28	8	4		4	12	28	8	4
5	12	28	8	4		6	12	28	8	4
7	12	28	8	4		8	12	28	8	4
9	12	28	8	4		10	12	28	8	4
11	12	28	8	4		12	12	28	8	4
13	12	28	8	4		14	12	28	8	4
15	12	28	8	4		16	12	28	8	4

A kml file including major components of the Project is included as **Appendix C**.

SP6 – Project Maps
Provide the following drawings and maps with units of measure/scale and the direction of north specified:

i. A legible plant site drawing showing the solar array, collector substations, collector lines and access roads and the power plant site boundary.

The site layout is included as **Appendix A**.

ii. Legible maps showing:

- **The power plant site boundary.**
- **Land ownership of surrounding lands, including any residences and dwellings within the notification radius described in Appendix A1 – Participant involvement program guidelines, Table A1-1: Electric facility application notification and consultation requirements.**
- **Neighbouring municipalities, First Nation reserves, Metis Settlements, including nearby roads, water bodies and other landmarks that may help identify the general location of the project area. This map may be at a larger scale than the detailed maps provided in response to other information requirements.**
- **All registered aerodromes and any known unregistered aerodromes within 4,000 metres of the edge of the proposed power plant site boundary.**
- **Important environmental features and sensitive areas in the local study area.**
- **Any additional energy-related facilities within the project area.**
- **The proposed collector line route or routes, and major land use and resource features (e.g., vegetation, topography, existing land use, existing rights-of-way). This information should also be provided in air photo mosaics.**

A landowner map is included as Appendix B of the Participant Involvement Program (PIP) Report (**Appendix D**). An overview map showing the neighboring municipalities, First Nation reserves, Metis Settlements, nearby roads and other information to identify the location of the Project is included as **Appendix E**.

No registered aerodromes were located within 4km of the Project boundary and no unregistered aerodromes were identified through consultation within 4km of the Project boundary.

Important environmental features and major land use and resource features are included in the Environmental Evaluation (**Appendix F**).

The proposed collector line design is yet to be completed. Existing energy related facilities within the Project area are shown on the site layout (**Appendix A**).

SP7 – Requested Approval Date
Provide the requested approval date from the Commission, the expected construction start date, the expected in-service date of the project and the requested construction completion date to be used in the project approval. Provide the rationale for these dates.
The requested approval date from the Commission is January 31, 2026. The expected construction commencement date is spring 2027, beginning with site clearing and grading activities, and the expected in-service date is commercial operation date is Summer 2028. To allow for any unforeseen

delays, the Proponent respectfully requests a construction completion date of December 31, 2028 in the Project approval.

Project Connection

SP8 – Connection Order
If a connection order is not concurrently being applied for, provide the expected date when the connection order application will be submitted.
A connection order is not concurrently being applied for and will be applied for with the Facilities Application for the transmission line at a later date.

SP9 – Asset Identification Code
Provide the asset identification code assigned by the independent system operator (ISO) and the ISO Project ID number related to your system access service request, if available.
The asset identification code has not yet been assigned by the ISO however the Project ID number related to the system access services request is P3011.

SP10 – Interconnection Details
If the power plant is to be connected to the transmission system, provide a map with one or more conceptual layouts showing possible routes and general land locations for facilities that would be used to interconnect the power plant to the Alberta Interconnected Electric System.
The interconnection details have not yet been determined by the AESO for the Project. However, the Proponent anticipates connecting to the existing 240 kV transmission line 9L24 running between the Project lands.

If the power plant is to be connected to the distribution system, provide a statement from the distribution facility owner indicating that it is willing to connect the generating facilities.
Not applicable.

Emergency Response Plan

SP11 – Emergency Response Plan Overview
Confirm the applicant has or will have a corporate or site-specific emergency response plan for the construction and operation of the proposed power plant. If the applicant will have a corporate emergency response plan, please explain why it decided not to develop a site-specific emergency response plan.
A site-specific emergency response plan (ERP) has been prepared for the Project and is included as **Appendix G**.

SP12 – Risk Management
Provide a summary of the following:

- **The site-specific risks (construction phase and operations phase) that have been identified to date.**
- **The emergency mitigation measures that have been identified.**
- **The site monitoring and communication protocols that will be put into place.**

General site-specific risks identified to date include the following, as further detailed in the site-specific ERP:

- Medical Emergency: Workers on-site face risks of injury or health-related incidents, including:
  - Slips, trips, and falls: Uneven terrain, construction materials, or adverse weather conditions may lead to falls, posing risks of fractures, sprains, or head injuries.
  - Burns: Electrical components, hot surfaces, and exposure to direct sunlight can result in burns.
  - Heat-related illness: Solar farms are often in open areas with prolonged sun exposure, increasing the risk of dehydration, heat exhaustion, and heat stroke.
  - Personal medical emergencies: Pre-existing conditions (e.g., heart attacks, seizures, or allergic reactions) can occur, necessitating a rapid emergency response

  Mitigation Measures include:
  - First-aid stations and trained personnel on-site.
  - Personal protective equipment (PPE), including slip-resistant footwear and sun protection.
  - Hydration stations and heat stress management plans.
  - Emergency response drills and clear medical evacuation procedures.
- Severe Weather/Catastrophic Emergency: Solar farms are exposed to a range of weather-related hazards:
  - Thunderstorms and lightning: Lightning strikes can damage infrastructure and pose direct threats to workers.
  - Flooding: Heavy rains can lead to flash floods, causing electrical hazards and access issues.
  - High winds and downed power lines: Strong winds can damage panels, dislodge structures, or cause falling debris.
  - Snow and ice accumulation: Cold weather can impact system performance, create slip hazards, and increase structural loads.

  Mitigation Measures include:
  - Weather monitoring and early warning systems.
  - Temporary shutdown procedures for severe weather events.
  - Emergency evacuation plans and designated shelters.
  - Regular inspections of infrastructure for weather-related damage.
- Fire Hazards: Fires at a solar farm can originate from multiple sources:
  - Small fires: Can result from overheating electrical components or improper maintenance.
  - Large fires: May spread from equipment failure or extreme weather conditions.
  - Wildland/grassfires: Solar farms are often located in rural areas with dry vegetation, increasing wildfire risk.
  - Electrical fires: Short circuits, arc faults, or equipment malfunctions can ignite fires within the system.

  Mitigation measures include:
  - Firebreaks and vegetation management around solar panels.
  - Fire-resistant equipment and thermal monitoring.
  - On-site fire suppression tools and training for personnel.

  - Emergency shutdown procedures for isolating affected areas.
- Construction and Operational Risks: During both construction and ongoing operations, workers face hazards such as:
  - Lifting injuries: Improper lifting of heavy components can result in musculoskeletal injuries.
  - Falls from height: Installing panels or maintenance on elevated structures may lead to falls.
  - Electrical hazards: Exposure to high-voltage systems, arc flashes, or improper grounding.
  - Machinery and vehicle incidents: Heavy equipment and transport vehicles pose risks of collision or entrapment.

  Mitigation measures include:
  - Comprehensive worker safety training, including fall protection.
  - Lockout/tagout (LOTO) procedures for electrical work.
  - Strict adherence to construction safety protocols.
  - Routine inspections of machinery and equipment.
- Hazardous Material Emergency: Potential chemical and environmental hazards include:
  - Chemical spills: Leakage of coolants, lubricants, or battery-related substances can pose health risks.
  - Equipment failures: Leaks from transformers or inverters can lead to hazardous exposures.
  - Environmental dangers: Dust, gas emissions, or contaminated runoff can affect workers and nearby ecosystems.

  Mitigation measures include:
  - Proper storage and handling of hazardous materials.
  - Spill containment and cleanup protocols.
  - Personal protective equipment (PPE) and training for hazardous material handling.
  - Emergency response coordination with local environmental agencies.
- Emergency Preparedness and Communication: The site-specific Emergency Response Plan (ERP) will outline detailed response procedures, including:
  - Defined emergency contact and escalation protocols.
  - Real-time monitoring and communication channels for site personnel.
  - Coordination with local emergency services for rapid response.
  - Regular updates and revisions to reflect site conditions and operational changes.

SP13 – Emergency Response Consultation

Confirm that local responders and authorities have been contacted or notified regarding the project emergency response plan. Describe any requirements or feedback received and describe how the applicant intends to address the requirements and feedback received.

The Proponent emailed a draft emergency response plan (ERP) to the Special Areas Board Fire Chief on August 28, 2025 requesting that they review and comment. Information was provided regarding fire breaks throughout the Project area. Further details are included in the PIP Report (**Appendix D**).

The Proponent intends to continue engaging with Special Area No. 3 and local emergency services to ensure a fully developed ERP is in place prior to construction commencement.

Solar Glare Assessment

SP14 – Solar Glare Assessment Report

Submit a solar glare assessment report that predicts the solar glare at receptors within 800 metres from the boundary of the project and registered aerodromes and known unregistered aerodromes within 4,000 metres from the boundary of the project where the potential for glare is possible. The assessment report must:

- **Describe the time, location, duration and intensity of solar glare predicted to be caused by the project.**
- **Describe the software or tools used in the assessment, the assumptions and the input parameters (equipment-specific and environmental) utilized.**
- **Describe the qualification of the individual(s) performing the assessment.**
- **Identify the potential solar glare at critical points along highways, major roadways and railways.**
- **Identify the potential solar glare at any registered and known unregistered aerodromes within 4,000 metres from the boundary of the project, including the potential effect on runways, flightpaths and air traffic control towers.**
- **Include a map (or maps) identifying the solar glare receptors, critical points along highways, major roadways and railways and aerodromes that were assessed.**
- **Include a table that provides the expected intensity of the solar glare (e.g., green, yellow or red) and the expected duration of solar glare at each identified receptor, critical points along highways, major roadways and railways and any registered and known unregistered aerodromes.**

The Proponent retained Green Cat Renewables Canada Corporation (GCR) to prepare a solar glare hazard assessment (Glare Analysis) for the Project. As per the Glare Analysis included as **Appendix H**, "glare mitigation is not being recommended for the evaluated routes or dwellings". If glare is determined to be an issue during the Project's operation, the Proponent will consider mitigation measures as outlined in the report, in consultation with impacted stakeholders.

Environmental Information

SP15 – Environmental Evaluation

If preparation of either a federal impact assessment or a provincial environmental impact assessment report was required, provide a copy as an appendix to the application and a separate environmental evaluation is not required. If a federal impact assessment or a provincial impact assessment report was not required, submit an environmental evaluation of the project. The environmental evaluation must:

- **Describe the present (pre-project) environmental and land use conditions in the local study area.**
- **Identify and describe the project activities and infrastructure that may adversely affect the environment.**

- **Identify the specific ecosystem components (i.e., terrain and soils, surface water bodies and hydrology, groundwater, wetlands, vegetation species and communities, wildlife species and habitat, aquatic species and habitat, air quality and environmentally sensitive areas) within the local study area that may be adversely affected by the project.**
- **Describe any potential adverse effects of the project on the ecosystem components during the life of the project.**
- **Describe the methodology used to identify, evaluate and rate the adverse environmental effects and determine their significance, along with an explanation of the scientific rationale for choosing this methodology.**
- **Describe the mitigation measures the applicant proposes to implement during the life of the project to reduce the potential adverse effects.**
- **Describe the predicted residual adverse effects of the project and their significance after implementation of the proposed mitigation.**
- **Describe any monitoring activities the applicant proposes to implement during the life of the project to verify the effectiveness of the proposed mitigation.**
- **List the qualifications of the individual or individuals who conducted or oversaw the environmental evaluation.**

The Proponent retained Strum Consulting to complete the environmental assessments for the Project. The environmental evaluation is included as **Appendix F**.

SP16 – Projects on Federal Lands

For projects wholly or partially located on federal lands (First Nation reserves, national parks or military bases), provide a copy of the environmental impact analysis completed for the corresponding federal government department. Indicate whether the project has the potential to cause effects that may cross into another jurisdiction. Environmental effects that originate on federal lands, but cross into another jurisdiction, must be addressed as part of the environmental review process. Projects on federal lands may be subject to provincial laws, standards and permits. The applicant must address how it has considered AUC Rule 007, Rule 012 and Rule 033 and describe the steps taken, if any, to address specific requirements set out in these rules.

Not applicable as the Project is not located on federal lands.

SP17 – Environmental Protection Plan

Submit a stand-alone, project-specific environmental protection plan (or environmental management plan) that itemizes and summarizes all of the mitigation measures and monitoring activities that the applicant is committed to implementing during construction and operation to minimize any adverse effects of the project on the environment.

A stand-alone, project-specific environmental protection plan prepared by Strum Consulting is included as **Appendix I**.

End of Life Management

SP18 – C&R Plan

Submit a copy of the initial renewable energy operations conservation and reclamation plan (REO C&R Plan) as set out in the Conservation and Reclamation Directive for Renewable Energy Operations.

An initial renewable energy operations conservation and reclamation plan (REO C&R Plan) prepared by Strum Consulting is included as **Appendix J**.

SP19 – Decommissioning and Reclamation Costs

Provide an overview of how the operator will ensure sufficient funds are available at the project end of life to cover the cost of decommissioning and reclamation.

The Proponent will follow Alberta's *Code of Practice for Solar and Wind Renewable Energy Operations.*

Noise

SP20 – Noise Impact Assessment

Provide a noise impact assessment in accordance with Rule 012.

The Proponent retained GCR to complete a noise impact assessment (NIA) in accordance with Rule 012, which is included as **Appendix K**.

Approvals, Reports and Assessments from Other Agencies

SP21 – Other Acts and Approvals

Identify any other acts (e.g., Environmental Protection and Enhancement Act, Water Act, Public Lands Act and Wildlife Act) that may apply to the project, identify approvals the project may require, and provide the status of each of these approvals.

Other Acts that may potentially affect the Project include:

- Alberta Land Stewardship Act, S.A. 2009, c.A-26-8;
- Alberta Utilities Commission Act, S.A. 2007, c.A-37.2;
- Electric Utilities Act, S.A. 2003 c E-5.1;
- Environmental Protection and Enhancement Act, R.S.A. 2000, c.E-12;
- Historical Resources Act, R.S.A. 2000, c.H-9;
- Migratory Birds Convention Act, S.C. 1994, c.22;
- Municipal Government Act, R.S.A. 2000, c.M-26;
- Occupational Health and Safety Act, S.A. 2017 c.0-2.1;
- Radiocommunications Act, RSC 1985, c R-2
- Safety Codes Act, R.S.A. 2000, c.S-1;
- Soils Conservation Act, R.S.A. 2000, c. S-15;
- Species at Risk Act, S.C. 2002. c.29;
- Water Act, R.S.A. 2000, c.W-3; and
- Weed Control Act, S.A. 2008, c. W-5.1.
- Wildlife Act, R.S.A. 2000, c. W-10;

Other approvals the Project may require include:

- NAV Canada – Approval received August 15, 2025
- Transport Canada – Currently under review
- Historical Resources Act – Approval was received on June 20, 2025

- Alberta Environment and Protected Areas – referral report received March 25, 2025
- Special Areas Board – Development Permit Application will be submitted following the AUC permitting process, if approved.

SP22 – Renewable Energy Referral Report
Submit a signed renewable energy referral report from Alberta Environment and Protected Areas (AEPA) Fish and Wildlife Stewardship. If the applicant is unable to provide a renewable energy referral report at time of application, the applicant must clearly identify the reason and provide details of its status.
A signed renewable energy referral report from Alberta Environment and Protected Areas (AEPA) Fish and Wildlife Stewardship was received on March 25, 2025 and is included as **Appendix L**.

The referral report concluded that the Project presents a moderate risk to wildlife and habitat. This determination was based on Project siting, impacted wildlife features, wildlife use in the area, and commitments made by the Proponent to mitigate and monitor wildlife impacts.

The Proponent adjusted the Project layout in response to the AEPA-FWS Referral Report moderate risk ranking. All Class II+ wetlands have been avoided and after finding the active STGR lek (STGR_LEK01), the Project layout design was revised to avoid the STGR lek with a 500 metre (m) setback.

A copy of the Renewable Energy Submission report provided to AEPA is included in **Appendix M**.

SP23 – Historical Resources Act Approval
Confirm that a Historical Resources Act approval has been obtained or has been applied for. If a historic resource impact assessment is required, briefly describe any known historical or archaeological sites, palaeontological sites, or traditional use sites of a historic resource nature. If a Historical Resources Act approval has been obtained, provide a copy of it.
Historical Resources Act approval was received on June 20, 2025 and the approval is included as **Appendix N**.

SP24 – Indigenous Consultation
If the government of Alberta, through the Aboriginal Consultation Office (ACO) or otherwise, directed consultation with an Indigenous group for related approvals (i.e., Public Lands Act, Water Act, Environmental Protection and Enhancement Act, Historical Resources Act, Government Organization Act, etc.) the applicant must provide a copy of the pre-consultation assessment, the adequacy assessment and the specific issues and response table (if prepared). If the government of Alberta, through the ACO or otherwise, indicated that a pre-consultation assessment is not required, the applicant must provide a copy of that direction. If advice from the government of Alberta has not been obtained, the applicant must provide justification for its decision to not seek advice.
Please refer to page 22 of the PIP Report (**Appendix D**).

Participant Involvement Program

SP25 – PIP Overview
Summarize the participant involvement information, including a description of the activities undertaken and include any engagement materials provided. (See Appendix A1 – Participant

involvement program guidelines and Appendix A1-B – Participant involvement program guidelines for Indigenous groups.).
A summary of the PIP, including a description of the activities undertaken and including any engagement materials provided is included in the PIP Report (**Appendix D**).

SP26 – Agency Consultations
Confirm that, if applicable, Alberta Transportation, the municipality in which the project is located, the applicable railway companies, and the owner of any registered and known unregistered aerodrome within 4,000 metres of the project boundary were consulted and provide a summary of any objections received, mitigations discussed, and any outstanding objections.
The proposed Project is not in proximity to a railway or within 4,000m of a known aerodrome. The Project is not located within 800m of a provincial Highway.

Details of consultation with Special Area No. 3 are included in the PIP Report (**Appendix D**).

SP27 – Stakeholder List
List all occupants, residents and landowners on lands within the appropriate notification radius as shown below and described in Appendix A1 – Participant involvement program guidelines, as well as Indigenous groups, owners of aerodromes or other interested persons that were consulted as part of the participant involvement program.
A list of all occupants, residents and landowners on lands within the appropriate notification radius as described in Appendix A1 – Participant involvement program guidelines and other interested persons that were consulted as part of the participant involvement program is included in the PIP Report (**Appendix D**).

SP28 – Stakeholder Contact Information
Supply a list of contact information for all persons who had been contacted as part of the participant involvement program in a spreadsheet in accordance with the template included in Appendix A1 – Participant involvement program guidelines.
A list of contact information for all persons who had been contacted as part of the participant involvement program in a spreadsheet in accordance with the template included in Appendix A1 – Participant involvement program guidelines is included as **Appendix O**.

SP29 – Municipal Consultation
Summarize consultation with local jurisdictions (e.g., municipal districts, counties).
Consultation with Special Area No. 3 is included in the PIP Report (**Appendix D**).

SP30 – Stakeholder Concerns
Identify all persons who expressed a concern(s) about the project. For each person, include the following information:

- **The specifics of the concern(s).**
- **Steps taken to try and resolve the concern(s).**
- **Whether the concern(s) was resolved.**

Details with respect to questions and concerns raised during the PIP are included in the PIP Report (**Appendix D**).

Energy Storage Facility Application

Project Description

ES1 – Requested Approvals

State the approvals that are being applied for from the AUC.

The Proponent hereby makes an application to the Commission for the BESS component of the Project, pursuant to Section 13.01 of the *Hydro and Electric Energy Act* (HEEA), c H-16 RSA 2000, as amended, to construct, own and operate an energy storage facility.

ES2 – Total Capability

Provide the total capability in MW and storage capacity in megawatt-hour (MWh) of the project.

The total capability of the BESS is 200MW and the storage capacity is 400MWh. The BESS layout is included as **Appendix P**.

ES3 – BESS Charging/Discharging

Describe where the proposed battery storage facility is charged from and discharged to.

The BESS will be configured as behind the meter and can only charge from the solar facility. The BESS will discharge to the AIES.

ES4 – Municipal Interest

Summarize the discussions held with the ISO, transmission facility owner, and/or distribution facility owner regarding the interconnection of the proposed battery storage facility, including any concerns indicated and solutions proposed.

Not applicable as there is no municipal interest in the Project.

ES5 – Single-Line Diagram

Provide a single-line diagram for the project including the metering points for the proposed project.

The single-line diagram for the Project is included as **Appendix Q**.

ES6 – Recycling Plan

Describe the recycling plan, based on current regulations, for the battery storage facility at project end of life and confirm that the final recycling plan will be in accordance with the regulation in place at the time of decommissioning.

At the end of the Project life, the BESS will be shipped back to the manufacturer's facility, or a qualified third party, for recycling. The Proponent confirms that all equipment and materials will be recycled or disposed of in accordance with regulations at the time of decommissioning. Refer to the initial conservation and reclamation plan in **Appendix J** for more information on the Project decommissioning.

ES7 – Existing Approvals

Provide a list of existing approvals for facilities directly affected by this project, if any.

There are no existing approvals directly affected by this Project.

ES8 – Ownership Structure

Provide details of the project ownership structure, including the names of all companies having an ownership interest in the project and their ownership share, and if applicable, the name of the project operator. Confirm that the applicant is a qualified owner.

Please refer to SP3.

ES9 – Electric Utilities Act Compliance
Provide documentation confirming compliance with Section 95 of the Electric Utilities Act, if applicable.
Not applicable.

ES10 – Project Location
Describe the location of the project:
Provide the legal description of the proposed power plant site (legal subdivision [LSD], section, township, range, meridian and/or plan, block, lot, municipal address for urban parcels) and connection point, if applicable.

Provide a Keyhole Markup Language (.kml/.kmz) file that contains the geographic data of each of the major components, including substation locations and project boundary of the proposed project. This file should reflect the information shown on the drawings and maps submitted to address information requirement BF11.
Please refer to SP5. The BESS specific infrastructure is located within LSD 4 of section 7-28-7 W4M.

ES11 – Project Maps
Provide the following drawings and maps with units of measure/scale and the direction of north specified:

iii. **A legible plant site drawing showing all major equipment components and the project site boundary.**

iv. **Legible maps showing:**

- **The power plant site boundary.**
- **Land ownership of surrounding lands, including any residences and dwellings within the notification radius described in Appendix A1 – Participant involvement program guidelines, Table A1-1: Electric facility application notification and consultation requirements.**
- **Neighbouring municipalities, First Nation reserves, Metis Settlements, including nearby roads, water bodies and other landmarks that may help identify the general location of the project area. This map may be at a larger scale than the detailed maps provided in response to other information requirements.**
- **Important environmental features and sensitive areas in the local study area.**
- **Any additional energy-related facilities within the project area.**
- **The major land use and resource features (e.g., vegetation, topography, existing land use, existing rights-of-way). This information should also be provided in air photo mosaics.**

  Please refer to SP6 as the BESS is integrated into the solar facility.

ES12 – Requested Approval Date
Provide the requested approval date from the Commission, the expected construction start date, the expected in-service date of the project and the requested construction completion date to be used in the project approval. Provide the rationale for these dates.
Please refer to SP7.

Project Connection

ES13 – Connection Order
If a connection order is not concurrently being applied for, provide the expected date when the connection order application will be submitted.
Please refer to SP8.

ES14 – Asset Identification Code
Provide the asset identification code assigned by the independent system operator (ISO) and the ISO Project ID number related to your system access service request, if available.
Please refer to SP9.

ES15 – Interconnection Details
If the battery storage facility is to be connected to the transmission system, provide a map with one or more conceptual layouts showing possible routes and general land locations for facilities that would be used to interconnect the battery storage facility to the Alberta Interconnected Electric System.
Please refer to SP10.

If the battery storage facility is to be connected to the distribution system, provide a statement from the distribution facility owner indicating that it is willing to connect the battery storage facilities.
N/A

Emergency Response Plan

ES16 – Emergency Response Plan Overview
Confirm the applicant has or will have a corporate or site-specific emergency response plan for the construction and operation of the proposed battery facility. If the applicant will have a corporate emergency response plan, please explain why it decided not to develop a site-specific emergency response plan.
Please refer to SP11.

ES17 – Risk Management
Provide a summary of the following:
The site-specific risks (construction phase and operations phase) that have been identified to date.

The emergency mitigation measures that have been identified.

The site monitoring and communication protocols that will be put into place.
Specific safety risks associated with lithium-ion battery energy storage systems include:

1. **Thermal Runaway:** Lithium-ion batteries can experience thermal runaway—a rapid and uncontrollable increase in temperature—due to internal short circuits, overcharging, physical damage, or manufacturing defects. This can lead to fire or explosion.

2. **Fire Hazard:** If a battery cell catches fire, it can release flammable gases and toxic fumes. Fires in lithium-ion batteries are difficult to extinguish using conventional methods and can spread rapidly if not contained.

3. **Electrical Hazards:** High voltages present in battery systems can pose electrical shock hazards to personnel during installation, maintenance, or emergency response situations.

4. **Operational Errors:** Human errors during installation, maintenance, or operation—such as improper handling of battery components, incorrect settings, or failure to follow safety procedures—can increase the risk of accidents.

Additional information on these risks and mitigations is included in the ERP (**Appendix G**). RWDI also completed an air quality assessment to determine maximum predicted extents, or downwind distances, of hazardous concentrations of hydrogen fluoride (HF) to help inform emergency response planning. A copy of this report is included as **Appendix R**.

ES18 – Emergency Response Consultation
Confirm that local responders and authorities have been contacted or notified regarding the project emergency response plan. Describe any requirements or feedback received and describe how the applicant intends to address the requirements and feedback received.
Please refer to SP13.

Environmental Information

ES19 – AEPA Feedback
Provide a summary of feedback received to date from AEPA addressing the environmental aspects of the project and any mitigation measures and monitoring activities recommended by AEPA.
The BESS was included in the submission to AEPA and the Project was considered as a whole by AEPA. Please refer to the renewable energy referral report (**Appendix L**).

ES20 – Environmental Evaluation
If preparation of either a federal impact assessment or a provincial environmental impact assessment report was required, provide a copy as an appendix to the application and a separate environmental evaluation is not required. If a federal impact assessment or a provincial impact assessment report was not required, submit an environmental evaluation of the project. The environmental evaluation must:

Describe the present (pre-project) environmental and land use conditions in the local study area.

Identify and describe the project activities and infrastructure that may adversely affect the environment.

Identify the specific ecosystem components (i.e., terrain and soils, surface water bodies and hydrology, groundwater, wetlands, vegetation species and communities, wildlife species and habitat, aquatic species and habitat, air quality and environmentally sensitive areas) within the local study area that may be adversely affected by the project.

Describe any potential adverse effects of the project on the ecosystem components during the life of the project.

Describe the methodology used to identify, evaluate and rate the adverse environmental effects and determine their significance, along with an explanation of the scientific rationale for choosing this methodology.

Describe the mitigation measures the applicant proposes to implement during the life of the project to reduce the potential adverse effects.

Describe the predicted residual adverse effects of the project and their significance after implementation of the proposed mitigation.

Describe any monitoring activities the applicant proposes to implement during the life of the project to verify the effectiveness of the proposed mitigation.

List the qualifications of the individual or individuals who conducted or oversaw the environmental evaluation.

Please refer to SP15.

ES21 – Projects on Federal Lands
For projects wholly or partially located on federal lands (First Nation reserves, national parks or military bases), provide a copy of the environmental impact analysis completed for the corresponding federal government department. Indicate whether the project has the potential to cause effects that may cross into another jurisdiction. Environmental effects that originate on federal lands, but cross into another jurisdiction, must be addressed as part of the environmental review process. Projects on federal lands may be subject to provincial laws, standards and permits. The proponent must address how it has considered AUC Rule 007 and Rule 012 and describe the steps taken, if any, to address specific requirements set out in these rules.
Not applicable as the Project is not located on federal lands.

ES22 – Environmental Protection Plan
Submit a stand-alone, project-specific environmental protection plan (or environmental management plan) that itemizes and summarizes all of the mitigation measures and monitoring activities that the applicant is committed to implementing during construction and operation to minimize any adverse effects of the project on the environment.
Please refer to SP17.

End of Life Management

ES23 – Decommissioning and Reclamation Costs
Provide an overview of how the operator will ensure sufficient funds are available at the project end of life to cover the cost of decommissioning and reclamation.
This will be assessed as part of the overall facility and the Proponent will follow Alberta's *Code of Practice for Solar and Wind Renewable Energy Operations.*

Noise

ES24 – Noise Impact Assessment
Provide a noise impact assessment in accordance with Rule 012.
Please refer to SP20.

Approvals, Reports and Assessments from Other Agencies

ES25 – Other Acts and Approvals
Identify any other acts (e.g., Environmental Protection and Enhancement Act, Water Act, Public Lands Act and Wildlife Act) that may apply to the project, identify approvals the project may require, and provide the status of each of these approvals.
Please refer to SP21.

ES26 – Historical Resources Act Approval
Confirm that a Historical Resources Act approval has been obtained or has been applied for. If a historic resource impact assessment is required, briefly describe any known historical or archaeological sites, palaeontological sites, or traditional use sites of a historic resource nature. If a Historical Resources Act approval has been obtained, provide a copy of it.
Please refer to SP23.

ES27 – Indigenous Consultation
If the government of Alberta, through the Aboriginal Consultation Office (ACO) or otherwise, directed consultation with an Indigenous group for related approvals (i.e., Public Lands Act, Water Act, Environmental Protection and Enhancement Act, Historical Resources Act, Government Organization Act, etc.) the applicant must provide a copy of the pre-consultation assessment, the adequacy assessment and the specific issues and response table (if prepared). If the government of Alberta, through the ACO or otherwise, indicated that a pre-consultation assessment is not required, the applicant must provide a copy of that direction. If advice from the government of Alberta has not been obtained, the applicant must provide justification for its decision to not seek advice.
Please refer to SP24.

Participant Involvement Program

ES28 – PIP Overview
Summarize the participant involvement information, including a description of the activities undertaken and include any engagement materials provided. (See Appendix A1 – Participant involvement program guidelines and Appendix A1-B – Participant involvement program guidelines for Indigenous groups.).
Please refer to SP25.

ES29 – Stakeholder List
List all occupants, residents and landowners on lands within the appropriate notification radius as shown below and described in Appendix A1 – Participant involvement program guidelines, as well as Indigenous groups, owners of aerodromes or other interested persons that were consulted as part of the participant involvement program.
Please refer to SP27.

ES30 – Stakeholder Contact Information
Supply a list of contact information for all persons who had been contacted as part of the participant involvement program in a spreadsheet in accordance with the template included in Appendix A1 – Participant involvement program guidelines.
Please refer to SP28.

ES31 – Municipal Consultation
Summarize consultation with local jurisdictions (e.g., municipal districts, counties).
Please refer to SP29.

ES32 – Stakeholder Concerns
Identify all persons who expressed a concern(s) about the project. For each person, include the following information:

- **The specifics of the concern(s).**
- **Steps taken to try and resolve the concern(s).**
- **Whether the concern(s) was resolved.**

Please refer to SP30.

Substation Application

Project Description

TS1 – Project Description
Provide a description of the proposed project.
The Project collector substation is a 240/34.5 kV substation located in LSD 5 in section 12-40-12 W4M, as shown on the site layout (**Appendix A**). The substation has a footprint of 7,440 m^2, 93m x 80m. Two 240/34.5 kV, 133/177/222 MVA main power transformers will be mounted inside the substation which will step up the voltage from 34.5kV from the solar and BESS collector system to 240kV, the required voltage grid interconnection.

TS2 – Transmission Regulation
Confirm if the application is for a customer project or an application related to a proposal under Section 24.31 of the *Transmission Regulation*.
The application is related to a proposal for a market participant under Section 24.31 of the Transmission Regulation.

TS3 – Ownership Information
Provide details of the ownership structure, including the names of all companies having an ownership interest in the project and their ownership share, and if applicable, the name of the operator of the facilities that is seeking to acquire the permit or license. Confirm that the applicant is a qualified owner.
Please refer to SP3.

TS4 – Existing Approvals
Provide a list of existing approvals for facilities directly affected by this project, if any.
Please refer to SP2.

TS5 – ISO Letter
Provide a copy of the independent system operator (ISO) direct assignment letter pursuant to the Electric Utilities Act. Alternatively, if a needs identification document was not required, provide a copy of the ISO approval letter pursuant to the abbreviated needs approval process, or provide a statement in the application that the project was exempt pursuant to subsection 7.1 of this rule.

Not applicable as this is a substation application.

TS6 – Functional Specification
Provide the most up-to-date functional specification issued by the ISO.
The functional specification for the Project will be part of the Facilities Application for the interconnection.

TS7 – Substation Design
Describe the design and ratings of the transmission line and major elements of the substation.
To support the interconnection to the AIES, the Proponent is proposing to build and operate a 34.5/240 kV substation that will be connected to the AIES by a 240 kV transmission line. The design and ratings of the transmission line will be outlined in a separate Facility Application.

The proposed substation will include the following major equipment:

- Two (2) 240 kV HV breakers
- Two (2) 240 kV motorized disconnect switches
- Two (2) 240/34.5 kV 133/177/222 MVA Transformer
- Two (2) 34.5kV motorized disconnect switches
- 34.5 kV circuit breakers (quantity will be determined during detail design)
- Control building with associated equipment
- Energy metering equipment
- An enclosure surrounded by a chain link fence

The substation single-line diagram is included in **Appendix Q** and shows all equipment and associated ratings. A drawing of the substation layout is included as **Appendix S**.

TS8 – Conductor Information
If the ISO requires the facility applicant to determine the choice of conductors, describe the conductor size and arrangement selected and the basis for the conductor selection.
Not applicable as this is a substation application.

TS9 – Conductor Rationale
If the application is not direct assigned by the ISO, provide the rationale for the rating/size of any proposed conductor or piece of major substation equipment.
Not applicable as this is a substation application.

TS10 – Structure Information
Describe the proposed transmission line structure type, including height and spacing; if more than one type of structure is proposed, state where each type will be used.
Not applicable as this is a substation application.

TS11 – Right-of-Way Width
State the right-of-way width and the basis for determining the width.
Not applicable as this is a substation application.

TS12 – Substation Equipment

Describe all major substation equipment being applied for, including the height of any telecommunications structure, and provide a list of the final major equipment that would be in the substation.

For the major equipment please refer to TS7. The substation will also contain additional equipment such as capacitor voltage transformers, revenue metering units, bus bars, station service transformer, surge arrestors, earthing electrodes, HV insulators, oil containment for the transformers, etc. The substation also includes the telecommunication equipment for SCADA. No telecommunications structures are included in the scope of this Application.

TS13 – Switching & Protection Features

Describe the switching and protection features of the proposed transmission facilities.

The proposed Project substation will be built and operated in accordance with the applicable rules and regulations for Transmission Facilities (Electric Utilities Act). Industry standard switching and protection features will be installed for the applicable transmission facilities.

TS14 – Electrical Interaction

Describe the electrical interaction of proposed transmission facilities with other facilities, such as pipelines, railways, telephone, radio and television transmission facilities, and other surface structures.

Not applicable as this is a substation application and there are no pipelines, railways, telephone, radio and television transmission facilities, and other surface structures in close proximity to the substation.

TS15 – Existing Facilities

Describe the changes to existing facilities required to accommodate the proposed facilities.

Not applicable, as there are no proposed changes to existing facilities as part of this application.

TS16 – Routing Alternatives

Describe any transmission line routing alternatives to the proposal, and compare the relative effects (environmental, social and economic, including any associated distribution costs) of these alternatives with the proposal. If the alternatives are segmented, include a comparison of the effects of each segment to the effects of its corresponding alternative segments.

Not applicable as this is a substation application.

TS17 – Single-line Diagram

Provide an electric single-line diagram or switching map showing new facilities in place in the system. In the case of a substation, provide an electric single-line diagram and a substation layout diagram, including major items of equipment and the fenced boundary of the substation, with units of measure/scale.

An electric single-line diagram is included as **Appendix Q.** The substation layout is included as **Appendix S**.

TS18 – Construction Schedule

Discuss the construction schedule, equipment and method of construction, and method of eventual right-of-way maintenance.

The substation construction schedule will align with the overall power plant and BESS Project schedule.

TS19 – Project Schedule

Provide the requested approval date, the expected construction start date, the expected in-service date of the project and the requested construction completion date to be stipulated in the project permit and licence.

Please refer to SP7.

TS20 – Workspace & Access

If available, provide the location of any required temporary or permanent workspace areas and access roads, and state whether these locations are requested to be listed in the permit and licence.

No temporary workspaces will be required for substation work outside of the fenced area.

TS21 – Project Mapping

Provide the following drawings and maps with units of measure/scale and north specified:

- **i. A legible map defining the study area and state the reasons for the chosen area.**
- **ii. Legible maps of the proposed facilities showing:**
  - **i. The preferred transmission line route and any alternative routes or segments.**
  - **ii. Right-of-way widths.**
  - **iii. Location of the transmission line on the right-of-way.**
  - **iv. Location of the transmission line relative to property lines.**
  - **v. Kilometre points along each transmission line route.**
- **iii. Legible maps and air photo mosaics upon which the proposed transmission line route(s) and/or substation have been imposed and showing the residences, landowner names, and major land use and resource features along the routes and/or adjacent to the substation (e.g. agricultural crops or pasture, topography, soil type, existing land use, existing rights-of-way, existing or potential historical, archaeological or paleontological sites, and superficial and mineable resources).**
- **iv. Legible maps showing the most relevant environmental features, wildlife and aquatic habitat, ecological communities, environmentally sensitive areas, protected areas and designations present in the local study area.**

Please refer to SP6.

TS22 – Project kml

Provide a Keyhole Markup Language (.kml/.kmz) file that contains the geographic data of the transmission line centerlines for all applied for transmission route options and substation locations. This file should reflect the information shown on the drawings and maps submitted to address transmission/substation facility application information requirement TS21.

Please refer to SP5.

TS23 – Visual Effects & Screening

If applicable, describe the measures proposed to minimize potential visual effects of the proposed development, including the identification of project components and locations that require screening and the screening measures (e.g., fences, earth berms, painting, landscaping) to be used.

There are no residences within 1km of the proposed Project Substation location (which is located within the Togo Lake Solar & BESS Project footprint) and no areas were identified as being “significant viewpoints” during the PIP process, regulatory consultation with Special Area No. 3 staff, or during environmental field assessments. There are no recreational areas in close proximity to the substation

which are used as viewpoints. Furthermore, the land is cultivated and privately owned. Public access to the substation site and Project is restricted, therefore, no mitigation is being proposed.

Environmental Information

TS24 – Environmental Evaluation

Submit an environmental evaluation of the project. The environmental evaluation must:

- **Describe the present (pre-project) environmental and land-use conditions for the proposed route, substation location and any alternatives.**
- **Identify and describe the potential effects of construction and operation of the project on the environment. In particular, describe any potential adverse effects on soils, terrain, vegetation species and communities, wetlands, wildlife species and habitat, aquatic species and habitat, groundwater, surface water bodies and hydrology, environmentally sensitive areas, and land use within the local study area, following and referencing published Alberta Environment and Protected Areas (AEPA) guidelines if applicable.**
- **Describe the methodology used and any field surveys conducted to identify, evaluate, and rate any potential environmental effects and determine their significance, along with an explanation of the scientific rationale for choosing this methodology.**
- **Describe the mitigation measures the applicant proposes to implement during the life of the project to reduce the potential adverse effects.**
- **Describe the predicted residual adverse effects of the project and their significance after implementation of the proposed mitigation.**
- **Describe any monitoring activities the applicant proposes to implement during the life of the project to verify the effectiveness of the proposed mitigation.**
- **List the qualifications of the individual(s) who conducted or oversaw the environmental evaluation.**
- **Present an overall comparison of the proposed routes, in particular, identify the environmental features and any potential environmental effects (e.g., on native vegetation communities, rare plants, wetlands, topography, unique terrain features, sensitive soils, wildlife species setbacks and wildlife habitat, and environmentally significant areas), and identify land use and resource features (e.g., agricultural, residential, recreational, forestry, trapping and hunting areas, protective notations, and existing or potential archaeological sites) for each route in a table with stated units (kilometre, total number, etc.).**
- **Summarize the compatibility of the proposed facility with various municipal services if a proposed transmission line passes through or immediately adjacent to an urban centre.**
- **If the project crosses agricultural describe any plans to prevent the spread of weeds and pests on agricultural land.**
- **If the project involves the modification or repair of an existing substation, describe any current or past on-site use of polychlorinated biphenyls (PCB) and summarize any site-specific incident spill records. Where soil disturbance will occur on or immediately adjacent to the substation site, describe any soil sampling or contamination assessment to be undertaken and describe any plans to safely manage, transport and dispose of contaminated soils.**

Please refer to SP15.

TS25 – Federal Lands
For projects wholly or partially located on federal lands (First Nation reserves, national parks or military bases), provide a copy of the environmental impact analysis completed for the corresponding federal government department. [Please submit along with your application].

Indicate whether the project has the potential to cause effects that may cross into another jurisdiction. Environmental effects that originate on federal lands, but cross into another jurisdiction, must be addressed as part of the environmental review process. Projects on federal lands may be subject to provincial laws, standards and permits. The applicant must address how it has considered AUC Rule 007 and Rule 012 and describe the steps taken, if any, to address specific requirements set out in these rules.
Not applicable as the Project is not located on federal lands.

TS26 – Environmental Protection Plan
Submit a stand-alone, project-specific environmental protection plan (or environmental management plan) that itemizes and summarizes all of the mitigation measures and monitoring activities that the applicant is committed to implementing during construction and operation to minimize any adverse effects of the project on the environment.
Please refer to SP17.

TS27 – Existing Facilities
Describe any decommissioning of existing transmission facilities and describe the reclamation plan that will be carried out, including for any temporary workspace areas and temporary access roads following commissioning.
Not applicable.

Noise

TS28 – Noise Impact Assessment
Provide a noise impact assessment in accordance with Rule 012 for new substations and transformer additions within an existing substation, clearly indicating the impact of the new substation and/or transformer addition.
Please refer to SP20.

Approvals from Other Agencies

TS29 – Other Applicable Acts
Identify any other acts (e.g. Environmental Protection and Enhancement Act, Water Act, Public Lands Act, and Wildlife Act) that may apply to the project, identify approvals the project may require, and provide the status of each of these approvals.
Please refer to SP21.

TS30 – AEPA Feedback
For preferred route and possible alternatives, applicants must provide a summary of feedback received to date from Alberta Environment and Protected Areas (AEPA) (including the local wildlife biologist of AEPA) addressing the environmental aspects of the project, and confirmation that AEPA is

satisfied with any proposed mitigation measures and monitoring activities or identify any unresolved project aspects where agreement with AEPA was not achieved.
The substation was included in the submission to AEPA and the Project was considered as a whole by AEPA. Please refer to the renewable energy referral report (**Appendix L**).

TS31 – Historical Resources Act Approval
Confirm that a Historical Resources Act approval has been obtained or has been applied for. If a historic resource impact assessment is required, briefly describe any known historical, archaeological sites, palaeontological sites, or traditional use sites of a historic resource nature. If a Historical Resources Act approval has been obtained, provide a copy of it.
Please refer to SP23.

Participant Involvement Program

TS32 – PIP Overview
Summarize the participant involvement information, including a description of the activities undertaken and include any engagement materials provided. (See Appendix A1 – Participant involvement program guidelines and Appendix A1-B – Participant involvement program guidelines for Indigenous groups.).
Please refer to SP25.

TS33 – Stakeholder List
List all occupants, residents and landowners within the appropriate notification radius as determined using Appendix A1 – Participant involvement program guidelines, as well as other interested persons that were notified or consulted as part of the participant involvement program.
Please refer to SP27.

TS34 – Stakeholder Contact Information
Supply a list of contact information for all persons who had been contacted as part of the participant involvement program in a spreadsheet in accordance with the template included in Appendix A1 – Participant involvement program guidelines.
Please refer to SP28.

TS35 – Municipal Consultation
Summarize consultation with local jurisdictions (e.g., municipal districts, counties).
Please refer to SP29.

TS36 – Stakeholder Concerns
Identify all persons who expressed a concern(s) about the project. For each person, include the following information:

- **The specifics of the concern(s).**
- **Steps taken to try and resolve the concern(s).**
- **Whether the concern(s) was resolved.**

Please refer to SP30.

Economic Assessment

TS37 – Cost Estimate

Provide an AACE Class 3 cost estimate for the preferred route and all alternatives on a common basis, in accordance with the requirements in ISO Rules Section 504.5 and the AESO Information Document #2015-002R, Service Proposals and Cost Estimating. The format of the cost estimate provided must take the form of the estimate summary that is obtained by completing the AESO's cost estimate template (available on the AESO web page). Where identifiable, include costs to be borne by persons other than the applicant and the applicant's customer(s) in the comparison. This information requirement may not be applicable to market participant and merchant line applications.

Not applicable as this is a substation application for a market participant owned facility.

Market Participant Choice

TS38 – MPC Projects

In addition to the above, if the applicant is a market participant applying under Section 24.31 of the Transmission Regulation, the applicant must also:

- **Provide confirmation that all required agreements are in place with the TFO including the asset transfer agreement, the written agreement with the TFO for the temporary operation of the transmission facility, if available, and confirmation of ISO approval of the connection proposal.**
- **Specify the temporary period for which the market participant expects to hold the operating licence, which may not exceed the term specified in the written agreement with the TFO for the temporary operation of the transmission facility.**

Not applicable as this is a substation application.

Interim Information Requirements

Agricultural land

1. Using the current version of the Agricultural Regions of Alberta Soil Inventory Database (AGRASID), please describe the agricultural capability of soils intersecting the project footprint as provided in the spring-seeded small grains (SSSGRAIN) attribute of the Land Suitability Rating System (LSRS) table. Provide a table showing the amount of area for each LSRS class impacted by the project in hectares (e.g., 80 hectares of Class 2).

Please refer to the Environmental Evaluation (**Appendix F**).

2. For the project footprint, identify whether:

a) The project lands contain irrigation infrastructure.

The Project lands do not contain irrigation infrastructure.

b) The project lands are within an irrigation district. If so, whether:

- **The project has been discussed with the applicable irrigation district.**
- **Irrigation acres (either permanent, terminable or annual) are or have been assigned to the project lands.**

- **An application for water rights or irrigation acres has been made for the project lands.**

The Project lands are not located within an irrigation district.

c) The landowners have obtained a Private Irrigation Water Licence for irrigating the project lands.

The landowner does not have a Private Irrigation Water License for the Project lands.

3. List the professional qualifications of the author(s) who prepared or reviewed the above information regarding agricultural land.

Please refer to the Environmental Evaluation (**Appendix F**).

4. Submit an agricultural impact assessment if any LSRS Class 1 or Class 2 land is reported within the project footprint, or if any Class 3 land is reported within the project footprint and the project is within a municipality identified in "Schedule 1 - Class 3 Land Municipalities" in the Electric Energy Land Use and Visual Assessment Regulation.

An agricultural impact assessment must include a soils component and a description of the current and proposed agricultural activities. The AUC requests the following information for inclusion in an agricultural impact assessment:

Soils component

a) Describe all soil series within the project area and report all potential impacts to:

- **Soil quality (i.e., compaction, rutting, salinity, sodicity, fertility, contamination, clubroot).**
- **Soil quantity (i.e., wind erosion, water erosion).**
- **Hydrology and hydrogeology (i.e., topography, soil drainage, depth to groundwater).**

b) Describe how potential impacts to soil quality, quantity, hydrology and hydrogeology will be adequately mitigated during construction, operation and reclamation.

c) Describe all earthworks (e.g., stripping and grading) planned for the project, including the following information:

- **Methodology to anchor structures (e.g., screw piles, concrete footings).**
- **The extent of stripping and grading, with an estimate of the area of agricultural land impacted.**
- **Description of how these activities have been reduced in both extent and intensity (as practical) to protect the quality, quantity and hydrology of impacted soils.**
- **Description of how and where stripped soils will be stockpiled and what steps will be taken to preserve the quality and quantity of stockpiled soils prior to project reclamation.**
- **Description of how soils will be returned to preserve the quality, quantity and hydrology of the disturbed soils.**

Current and proposed agricultural activities

d) Describe the current agricultural activity within the project lands (e.g., crop rotation, grazing regime) and typical yield, revenue or other applicable measure of productivity for the agricultural activities on the project lands. Comment on any constraints to co-locating the

current agricultural activities within the project lands and any project alterations, upgrades or specialized equipment necessary to maintain the current agricultural activities.

e) If the current agricultural activities are not feasible, explain why. Provide a proposal for co-locating alternative agricultural activities with the proposed project, including:

- **The specifics of the co-located alternative agricultural activities including sufficient details to demonstrate the feasibility of such an agricultural system (e.g., cropping proposal, availability of forage, stocking rates, specialized equipment).**
- **The forecasted timing, expected production (yield, revenue or other applicable measure of productivity) and marketability of the agricultural products of the co-located alternative agricultural system.**
- **If other practices are being considered that support agriculture (e.g., cover crops for soil health).**
- **Compare the expected productivity of the co-located alternative agricultural system to the productivity of the current agricultural activity within the project lands (i.e., response to request 4d) and express it as a percentage of the current productivity.**

f) Describe how the performance of the co-located agricultural activities will be evaluated over the course of the project life and the potential for changes to the agricultural activities in the event of poor performance.

The Project does not require an agricultural impact assessment, however Strum Consulting has provided additional information regarding soils in the Environmental Evaluation (**Appendix F**).

Municipal Land Use

1. Confirm whether the proposed power plant or energy storage facility complies with the applicable municipal planning documents including municipal development plans, area structure plans, land use bylaws and other municipal bylaws.

The Project is located in Special Area No. 3 and is subject to the following planning documents:

- Special Areas Land Use Order - Ministerial Order No. MSD: 064/24: (the LUO) – as per LUO, the Project lands are zoned Agricultural (A). The Project falls under the category "solar energy system – commercial" which is defined as "any device used to collect sunlight that is part of a system used to convert radiant energy from the sun into thermal or electrical energy which is intended to primarily provide electrical power for commercial resale", which is a discretionary use in the Agricultural district. Setbacks are outlined in Section 3.21.1 of the LUO, summarized as follows:
  - 30.48m from a municipal road allowance
  - 7.62m from property lines or no setback where both parcels contain solar infrastructure and both landowners have provided written agreement to the location of the placement of the solar infrastructure

  All of the setbacks have been adhered to. Additionally, it is the Proponent's understanding that an updated LUO is being proposed and through discussions with Special Areas, the Project will still comply with proposed updated setbacks.
- Municipal Development Plan effective February 23, 2021 (the MDP) – the MDP does not explicitly include or preclude solar projects or renewable energy projects. The overall goals of

the MDP focus on six key municipal goals: grow the local economy and population direction; promote growth and development through smart municipal investment; create flexible policy and regulation; create and maintain a sustainable tax base; enhance citizen understanding of the subdivision and development process; maintain a strong rural community character.

- The Project is not subject to any inter-municipal development plans or area structure plans.

2. Identify any instances where the proposed power plant or energy storage facility does not comply with applicable municipal planning documents and provide a justification for any non-compliance.

There are no instances where the proposed Project does not comply with the applicable municipal planning documents.

3. Describe how the applicant engaged with potentially affected municipalities to modify the proposed power plant or energy storage facility or to mitigate any of its potential adverse impacts to the municipality, prior to filing the application.

Please refer to the PIP Report (**Appendix D**).

Reclamation Security

For wind and solar power plant applications:
Confirm whether the applicant will: (i) provide reclamation security to the Government of Alberta; (ii) provide reclamation security to hosting landowners; or (iii) a combination of both.
If either (ii) or (iii) is chosen, provide sufficient information to confirm whether the applicant intends to follow the Reclamation Security Guidelines for Wind and Solar and if not, explain any differences.

The Proponent will provide reclamation security to the government of Alberta.

Viewscapes

For all types of power plants located within a buffer zone or a visual impact assessment zone, as defined in Schedule 2 and Schedule 3 of the regulation, applicants must submit a visual impact assessment. The visual impact assessment must include:

1. An evaluation of the anticipated visual impacts on the buffer zone or visual impact assessment zone.

2. Visual simulations from key vantage points illustrating the potential visual impact of the proposed power plant.

- **Key vantage points should include locations with valued viewscapes determined to have a major or major/moderate severity of impact raking in the visual impact assessment. If desired, visualizations may also be provided for other viewpoints in the project area so that a range of views at different distances and in different landscapes may be presented. Some of these additional visualizations can include viewpoints from nearby residences.**
- **Visualizations must include an accurate representation of the viewscape:**
  - **Before project construction has commenced.**
  - **After project construction has been completed, but without any mitigation measures implemented.**

o After project construction has been completed, and any proposed mitigation measures have been implemented.

• The visualizations should include an explanation of how they were prepared, how they are to be viewed, and what was done to ensure they were prepared accurately. A map must be provided that shows the location and direction of each visualization.

3. Proposed mitigation measures to minimize or offset any adverse visual effects on the buffer zone or visual impact assessment zone.

• Describe the mitigation measures that will be implemented, including their location, predicted effectiveness during the project's full life cycle and whether the mitigation measures have been discussed with adjacent landowners. If vegetation screening is planned, please confirm that it has also been discussed with local fire authorities and the municipality.

The Project is not located within a buffer zone or a visual impact assessment zone, as defined in Schedule 2 and Schedule 3 of the regulation.

Cumulative Effects

1. Please confirm whether the applicant is aware of other existing developments in the project area that could cumulatively affect the rural setting/landscape due to their proximity and/or number.

The Proponent is not aware of any other existing developments in the project areas that could cumulatively affect the rural setting/landscape due to their proximity and/or number.

2. Please discuss any potential positive or negative cumulative social, economic or environmental impacts or effects that may occur considering the proposed project, existing developments and any other currently planned developments. This discussion may include, but is not limited to, any economic spinoffs, community and employment benefits, visual impacts, proliferation, land fragmentation (including fragmentation of agricultural uses, wildlife habitat fragmentation, etc.), the impact of adherence to municipal planning documents, wildlife, species at risk, air quality impacts, recreational or tourism impacts, impacts to existing or anticipated resource development, wetlands, native grasslands, watersheds and water quality impacts, and surface management.

Economic Spinoffs and Community Benefits

The Project adds construction spending, short-term jobs, and ongoing O&M roles. Local businesses (accommodations, fuel, aggregate, equipment, catering) typically experience increased demand, and municipalities receive stable long-term non-residential tax revenue. In combination with other regional projects, these effects are beneficial and long-term but modest relative to the regional economy. Enhancement measures include local vendor preference, apprentice/training opportunities (including for under-represented groups), and a community-benefit contribution aligned with municipal priorities.

Visual Impacts & Perceived Proliferation

Solar arrays are low profile; the most pronounced visual change occurs in close proximity to the Project, where panels, inverter skids, substation, and BESS may be partially visible. Cumulatively, multiple facilities can create a perception of "project density." There are no other known energy developments in

the area surrounding the Project. As the nearest residence is over 800m from the Project fence line, visual impacts are expected to be negligible. The BESS is located over 4km from the nearest residence, adjacent to the existing transmission line, further reducing visual impacts.

Land Fragmentation (agriculture & access)

Within the fence, land is temporarily removed from normal cultivation; outside, access patterns can change during construction. There are no other known energy developments in the area surrounding the Project. With other projects, the regional cumulative footprint rises, but effects remain localized and reversible through decommissioning and reclamation backed by financial security.

Municipal Planning & Policy Adherence

Conformance with the Special Areas Board Land Use Order and applicable provincial guidance reduces cumulative conflict with neighbouring land uses. The Project follows all required setbacks, and the Proponent will continue to coordinate with municipal staff on haul routes and emergency preparedness.

Recreation & Tourism

Short-term access and dust/noise can affect nearby recreation. There are no known tourist areas nearby, but the area is used for hunting. The Project coordinates to maintain access, will schedule high-traffic activities in coordination with Special Areas Board.

Impacts to Existing or Anticipated Resource Development

Given that the existing wells and pipelines within the Project area have all been abandoned and the operator is currently pursuing reclamation certificates for the well sites, no impacts are expected to existing resource developments. The Proponent is not expecting any new resource development within the Project area given the abandoned status of the remaining infrastructure.

Environmental impacts and mitigations are discussed in the Environmental Evaluation (**Appendix F**).

With standard design, avoidance, and best-practice mitigations the Project's positive cumulative socio-economic effects (local spending, jobs, and municipal tax base) are expected to be low–moderate and beneficial over the long term. Negative cumulative environmental and social effects (visual change, land and habitat fragmentation, construction-related dust/noise/traffic, and potential wetland interactions) are expected to be low, localized, and reversible at decommissioning, managed through commitments, compliance with municipal/provincial requirements, and monitoring with adaptive management.

3. Please discuss the applicant's alignment, or efforts to align, with Alberta's Land-use Framework and the economic, orderly and efficient development of industrial facilities including efficient land use principles.

Alberta's Land-use Framework

The Project has been planned and designed in consideration of Alberta's Land-use Framework (LUF), which provides the provincial approach to managing Alberta's land and natural resources for environmental, economic, and social sustainability. The LUF establishes regional planning under the Alberta Land Stewardship Act (ALSA) and emphasizes cumulative effects management, balance between land uses, and integration of provincial objectives with municipal planning.

The Proponent has demonstrated alignment with the LUF through the following efforts:

- **Siting and Land Suitability:** The Project is located on privately owned agricultural land that is already modified from its native state, with Project components avoiding intact native grasslands and areas of high conservation value.
- **Regional Planning Consistency:** The Project area falls within the regional planning boundaries of the *South Saskatchewan Regional Plan (SSRP)*. Project siting and mitigation measures support the SSRP's goals of responsible energy development, biodiversity conservation, and watershed protection.
- **Cumulative Effects Awareness:** Project design integrates avoidance and mitigation to minimize cumulative environmental effects, including maintaining buffers to wetlands and implementing erosion, sediment, and weed control.

Economic, Orderly and Efficient Development of Industrial Facilities

The Project supports the economic, orderly and efficient development of energy infrastructure in Alberta by:

- **Efficient Land Use:** The Project footprint has been optimized to minimize land disturbance while maximizing solar energy generation capacity.
- **Compatibility with Existing Uses:** Agricultural activity can continue on adjacent parcels, and existing oil and gas infrastructure setbacks have been adhered to, resulting in negligible impacts on existing uses.
- **Integration with Infrastructure:** The Project is located in proximity to existing transmission infrastructure, which minimizes the need for new long-distance transmission lines and reduces overall land disturbance.
- **Long-term Land Stewardship:** The Project includes a decommissioning and reclamation plan with financial security, ensuring the land can be returned to agricultural capability at the end of its lifecycle, thereby supporting the principle of reversible land use.

Efficient Land Use Principles

The Project aligns with efficient land use principles promoted under Alberta's policy framework by:

- Prioritizing disturbed or cultivated lands over undisturbed native ecosystems.
- Clustering infrastructure (solar PV, BESS, substation) within a consolidated footprint to reduce sprawl and limit linear disturbance.
- Respecting municipal development plans and bylaws, and working collaboratively with local authorities to address siting, access, drainage, and surface management.
- Applying best practices for weed management, soil conservation, and reclamation to maintain long-term land productivity.

The Proponent's approach reflects Alberta's commitment to balancing sustainable economic development with environmental stewardship. By aligning with the Land-use Framework, adhering to efficient land use principles, and ensuring orderly integration with existing infrastructure and planning documents, the Project contributes to Alberta's objectives of responsible renewable energy growth, while maintaining the long-term viability of agricultural and environmental values.