

AUC RULE 007 Application

for the proposed

Lone Butte Solar Project

Submitted by

Lone Butte Solar Project Corp.

a wholly owned subsidiary of ACCIONA Energy Canada Global, Inc.



October 2024

Table of Contents

Executive Summary	5
SP1 – Approvals Requested.....	6
SP2 – Existing Approvals Affected.....	6
SP3 – Project Ownership Structure	6
SP4 – Applicability of Section 95 of the <i>Electric Utilities Act</i>	7
SP5 – Project Location	7
SP6 – Drawings and Maps.....	8
SP7 – Requested Approval Date	8
SP8 – Connection Order	8
SP9 – AESO Asset Identification	8
SP10 – Transmission System Connection Information.....	9
SP11 – Emergency Response Plan.....	9
SP12 – Emergency Response Plan: Site Specific Information.....	9
SP13 – Emergency Response Plan: Local Responders and Authorities	10
SP14 – Solar Glare Assessment.....	10
SP15 – Environmental Evaluation	11
SP16 – Environmental Evaluation: Federal Lands	11
SP17 – Environmental Evaluation: Project Specific Environmental Protection Plan	12
SP18 – End of Life Management: C&R Plan.....	12
SP19 – End of Life Management: Funding.....	12
SP20 – Noise	13
SP21 – Approvals, Reports and Assessments from other Agencies.....	13
SP22 – Renewable Energy Referral Report	14
SP23 – Historical Resources	14
SP24 – Indigenous Consultation Requirements.....	14
SP25 – Participant Involvement Program	15
SP26 – Participant Involvement Program: Provincial Agencies, Railways, Aerodromes and Municipalities.....	15
SP27 – Participant Involvement Program: Landowners, Residents and Occupants.....	16
SP28 – Participant Involvement Program: Contact Information	16
SP29 – Participant Involvement Program: Local Jurisdictions	16
SP30 – Participant Involvement Program: Documentation.....	17
Bulletin 2023-005 Supplemental Information Requirements	18
Bulletin 5 – Agricultural Land	18
Bulletin 5 – Municipal Land Use.....	20
Bulletin 5 – Viewscapes.....	22
Bulletin 5 – Reclamation Security.....	22
Bulletin 2024-008 Enhanced Interim Information Requirements	23

B8.1 – Estimated Reclamation Cost	23
B8.2 – Form of Reclamation Security	23
Substation Application	24
TS1	24
TS2	24
TS3	24
TS4	24
TS5	24
TS6	25
TS7	25
TS8	25
TS9	25
TS10	25
TS11	25
TS12	25
TS13	26
TS14	26
TS15	26
TS16	26
TS17	26
TS18	26
TS19	27
TS20	27
TS21	27
TS22	27
TS23	28
TS24	28
TS25	28
TS26	28
TS27	28
TS28	28
TS29	29
TS30	29
TS31	29
TS32	29
TS33	29
TS34	29
TS35	29
TS36	30

TS37.....	30
TS38	30
TS39	30
TS40.....	30

List of Acronyms

Acronym	Definition
AACSW	Alberta Arts, Culture and Status of Women
ACO	Aboriginal Consultation Office
AESO	Alberta Electric System Operator
AGRASID	Agricultural Regions of Alberta Soils Inventory Database
AIES	Alberta Interconnected Electric System
AUC	Alberta Utilities Commission
CLI	Canada Land Inventory
ERP	Emergency Response Plan
GW	Gigawatt
HRIA	Historical resource impact assessment
km	kilometer
kV	kilovolt
kVA	kilovolt-amperes
LAIRT	Landscape Analysis Indigenous Relations Tool
LSRS	Land Suitability Rating System
m	meters
MPT	Main Power Transformer
MV	Medium Voltage
MW	megawatts
MWac	megawatts alternating current
MWdc	megawatts direct current
MVA	mega-volt amperes
NIA	Noise Impact Assessment
PIP	Participant Involvement Program
PV	Photovoltaic
SAT	Single Axis Tracker
SGHA	Solar Glare Hazard Assessment
SLD	Single Line Diagram
SSSG	Spring Seeded Small Grains
TFO	Transmission Facility Owner
W	watt
Wp	watt Peak

Executive Summary

Lone Butte Solar Project Corp. (the “Proponent”) is seeking approval to construct and operate the Lone Butte Solar Project, proposed on approximately 2,000 acres of privately owned and cultivated land in Kneehill County, Alberta (the “Project”).

Lone Butte Solar Project Corp. is a wholly owned subsidiary of Acciona Energy Canada Global, Inc. (“ACCIONA”). ACCIONA is a leader in renewable energy, with over 13.5 GW of installed capacity across five continents. In Alberta, ACCIONA operates the *Chin Chute* (30 MW) and *Magrath* (30 MW) wind energy facilities, and is currently constructing the 280 MW *Forty Mile Wind* energy facility.

Initial land acquisition for the Project focused on areas of low population density, previous land disturbance and proximity to an electrical interconnection that would maximize use of the existing transmission system. The low population density of the area facilitated a Project design whereby only one third-party residence is within 400m of the Project boundary for which a voluntary setback was applied with the acknowledgment of the landowner.

The Project avoids all wetlands and native grass area and has received an overall “**low**” rating from Alberta Environment and Protected Areas.

Project design incorporated landowner input, including a request to focus on traditionally lower-producing lands, with soil testing completed to validate the land suitability ratings. The historically modelled Provincial land suitability rating system (“LSRS”) ratings for spring-seeded small grains shows that Class 2 land intersects 35.2% of the Project area, while Class 3 or poorer lands intersect 64.8% of the Project area. Soil testing and subsequent re-assessment of the LSRS ratings in accordance with the stated methodology resulted in Class 2 lands intersecting only 3.1% of the Project area, and Class 3 or poorer rated lands intersecting 96.9% of the Project area. In accordance with guidance provided by the Government of Alberta, the Project design will facilitate the ability to co-locate agricultural activity by ensuring sufficient space between rows and at the end of rows to accommodate narrow-width mechanized equipment, which in turn would support the integrated farming operation of the primary Project landowner. Importantly, while only 3% of the Project area is expected to be subject to the co-location considerations set out by the Government of Alberta, ACCIONA has designed the Project so that 100% of the Project area can be used to support co-location of agricultural activities.

During the design stage, an initial Solar Glare Hazard Assessment (“SGHA”) identified a portion of the project area as having more than nominal predictions of glare along certain roadways and receptors in the area. ACCIONA subsequently redesigned this portion of the Project to utilize a single axis tracking (“SAT”) system to effectively mitigate these predictions. Also, during the design stage, inverter units were located a minimum 500m from the nearest residence and the main power transformers were set at 1,200m from the nearest residence to facilitate compliance with noise control requirements.

Significant separation exists between the Project area and any provincial parks or designated natural areas, thereby not affecting any of these viewsapes. One nearby public campground (4 km southeast of the Project) is heavily screened by an existing shelterbelt of trees and is isolated by existing topography, making the Project not visible to users of this area.

Contractual obligations require ACCIONA to return the land to equivalent capability at the conclusion of the Project. Reclamation funding will be secured by an irrevocable letter of credit in favour of the landowners, posted **prior to** the start of construction.

The Project is proposed to be connected to the Alberta Interconnected Electric System (“AIES”) through a T-Tap of an existing transmission line that can accept the full output of a project without requiring system upgrades, and importantly, without creating congestion on existing infrastructure. The Project connection provides direct access to the main load centers along the Calgary to Red Deer corridor, maximizes the use of the existing transmission system, and does not

require ratepayer funded upgrades to support delivery of low-cost, renewable energy to a high-load area of the AIES.

The connection has been direct-assigned to the incumbent Transmission Facility Owner (“TFO”) and will be permitted via separate facilities applications to the Alberta Utilities Commission (“AUC”). Altalink will be responsible for the physical connection to the AIES while ATCO Electric will be responsible for the communications component located within the Project substation.

SP1 – Approvals Requested

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.

Approvals being applied for:

Lone Butte Solar Project Corp. is applying to the AUC to construct and operate the Lone Butte Solar power plant pursuant to Sections 11 and 19 of the *Hydro and Electric Energy Act* (“HEEA”), and construct and operate the associated Lone Butte 1801S substation pursuant to Sections 14, 15, and 19 of the HEEA.

Describe the power plant and collector system:

The proposed power plant will have a total capacity of 450MW_{ac} (585 MW_{dc}).

The layout contemplates the use of approximately 1.1 million bi-facial solar modules mounted on a combination of fixed tilt racking and single axis trackers (“SATs”). The majority of the Project area (95%) will utilize fixed tilt racking while a smaller portion (5%) will utilize SATs. The solar modules proposed for the Project are manufactured by Jinko Solar, with a capacity of 570 watts_{dc}.

The modules will in turn be connected to approximately 122 inverter units that will transform the energy generated into alternating current electricity. The inverter units proposed for the Project are manufactured by Sungrow, each having a capacity of 4,400 kVA.

The collector system linking the inverter units to the Project substation will be installed underground. The Project substation will include three (3) Main Power Transformers (“MPTs”), each having a capacity of 166 MVA. The connection point to the AIES will be the Project substation.

The final selection of the photovoltaic (“PV”) solar module, inverters and MPTs will be made prior to construction based on required electrical characteristics and procurement considerations.

SP2 – Existing Approvals Affected

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

The are no existing approvals directly affected by the Project.

SP3 – Project 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.

Lone Butte Solar Project Corp. is a company registered under the *Business Corporations Act* (Revised Statutes of Alberta 2000, Chapter B-9). Lone Butte Solar Project Corp. is a wholly owned subsidiary of ACCIONA.

Lone Butte Solar Project Corp. is a qualified owner and ACCIONA will be the Project operator.

Corporate Registry information is provided in Attachment 1.

SP4 – Applicability of Section 95 of the *Electric Utilities Act*

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.

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 below.

Location description:

Legal description of the proposed power plant site:

The Project is located within Kneehill County and occurs in portions of 24 quarter sections as detailed in **Table 1**.

Table 1: Legal Land Description of Power Plant Site

Quarter(s)	Section	Township	Range	Meridian
NW/NE/SE/SW	33	31	26	W4M
NW/SW	28	31	26	W4M
SE/SW/NW	3	32	26	W4M
SE	4	32	26	W4M
NW/NE/SE/SW	5	32	26	W4M
NE/SE	6	32	26	W4M
SW/SE/NE	7	32	26	W4M
NW/NE/SE/SW	8	32	26	W4M
SW	10	32	26	W4M

Legal description of the connection point, if applicable:

The connection point is detailed in **Table 2**.

Table 2: Legal Land Description of the Connection Point

LSD - Quarter	Section	Township	Range	Meridian
LSD 13 – NW	5	32	26	W4M

The .kml/.kmz file is provided in Attachment 2.

SP6 – Drawings and Maps

- Provide the following drawings and maps with units of measure/scale and the direction of north specified.
A legible plant site drawing showing the solar array, collector substations, collector lines and access roads and the power plant site boundary.
- 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, waterbodies 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.

The requested maps are provided in Attachment 3.

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.

Table 3: Requested Approval Dates

Requested Approval Date	February 15, 2025	180 days from submission of application
Expected Construction Start Date	April 15, 2026	Consideration for TFO to complete the Permit and License process for the connection line
Expected In-Service Date	November 1, 2027	Construction timelines and delivery of long-lead items
Requested Construction Completion Date	June 30, 2029	Consideration of 12 months for following the completion of project installation activities

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. The Project connection has been direct-assigned to the incumbent TFO, who is expected to apply for the connection order concurrent with the submission of the Facilities Application for the Project connection.

SP9 – AESO Asset Identification

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.

Asset identification code: [An asset identification code has not yet been assigned to the Project.](#)

AESO Project ID number: [P2552](#)

SP10 – Transmission System Connection Information

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.

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.

[The proposed Project will be connected to the transmission system. The Project connection has been direct-assigned to the incumbent TFO, who will provide this as part of a transmission facility application. A conceptual layout showing possible routes was included in the participant involvement program \(“PIP”\) for the power plant. A copy of this map is provided in Attachment 4.](#)

SP11 – Emergency Response Plan

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 draft emergency response plan \(“ERP”\) has been prepared for construction and operation of the proposed power plant and substation. The ERP will be updated prior to the commencement of construction.](#)

[The draft ERP is provided in Attachment 5.](#)

SP12 – Emergency Response Plan: Site Specific Information

Provide a summary of the following:

- [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.](#)

[The Project is located in a rural area with a limited number of adjacent landowners and dwellings.](#)

[The two key site-specific emergency considerations for the Project are personal injury and fire. These considerations would be applicable to both the construction and operating phases of the Project.](#)

[Other site-specific emergency considerations include severe weather, civil disturbance, criminal activity and hazardous materials. These considerations would also be applicable to both the construction and operating phases of the Project.](#)

[Mitigation of personal injury risks is function of the specific situation and the draft ERP includes provisions ranging from the use of personal protective equipment to specified procedures during extreme weather events. In the event of a personal injury situation, site access is of paramount importance to and the Project area is accessible through any number of routes from different directions. Controlled gate locations will serve as the primary access points to the fenced portions of the Project area.](#)

[In the event of a fire situation, site access is again of paramount importance and the Project area is accessible through any number of routes from different directions. Controlled gate locations will serve as the primary access points to the fenced portions of the Project area. Multiple existing access points along these same roadways can serve as emergency](#)

access points to the perimeter of the Project area.

The draft ERP includes provisions for an emergency response coordinator and an emergency control center. Dedicated communication procedures for providing notifications to on-site personnel and local responders are also contained within the draft ERP. Communications are expected to be maintained using a combination of an on-site radio system and cellular phones.

The ERP will be updated prior to commencement of construction.

The draft ERP is provided in Attachment 5.

SP13 – Emergency Response Plan: Local Responders and Authorities

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.

Local responders including fire, police and EMS have been contacted regarding the Project, and were provided the opportunity to discuss key aspects of the ERP.

Key details including dispatch locations for EMS, police and fire responders were confirmed and contact information was included in the ERP.

No other Project-specific feedback was received, and local responders further requested that the Proponent plan to review the ERP with them in detail closer to the start of construction.

SP14 – Solar Glare Assessment

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.

During the design stage, an initial SGHA identified a portion of the Project area as having more than nominal predictions of glare along certain roadways and receptors in the area. ACCIONA subsequently redesigned this portion of the Project to utilize an SAT system to be able to effectively mitigate these predictions.

The SGHA is provided Attachment 6.

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 what 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 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 these 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.

No federal environmental assessment report was required under the *Impact Assessment Act (Canada)*. The exemption to the provision of a federal impact assessment report is provided in Attachment 7.

No provincial environmental impact assessment report was required under the *Environmental Protection and Enhancement Act (Alberta)*. The exemption to the provision of a provincial environmental impact assessment report is provided in Attachment 7.

A comprehensive environmental evaluation was completed on ecosystem components including vegetation, soils, wetlands, waterbodies, wildlife and wildlife habitat.

The Environmental Evaluation for the Project is provided in Attachment 8.

Updated information requirements related to agricultural land use and potential impacts to soil quantity and quality have been included in the responses to the Bulletin 005 information request included in this application.

The qualifications of the individual that completed the Environmental Evaluation are provided in Attachment 8.

SP16 – Environmental Evaluation: 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. No portion of the Project is located on federal lands.

SP17 – Environmental Evaluation: Project Specific 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.

The Project Specific Environmental Protection Plan is provided in Attachment 9.

SP18 – End of Life Management: 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*.

The initial Conservation and Reclamation Plan is provided in Attachment 10.

SP19 – End of Life Management: Funding

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

The AUC Interim Rule 007 Information Requirements have been incorporated in response to SP19.

i. *The standard to which the project site will be reclaimed to upon decommissioning.*

The confidential lease agreements with each landowner contain provisions for end of life management and funding.

The lease agreements entered into with the host landowners provide that the Project owner shall remove its Project facilities and all personal property and shall restore the property to as nearly as possible to its original condition, and in accordance with laws and regulations of the Province of Alberta at the time.

ii. *How the amount of the reclamation security will be calculated.*

The leases provide that the amount of reclamation security shall be calculated as the estimated cost of reclamation less the estimated salvage value at the time the estimate is prepared.

iii. *The frequency with which the reclamation security amount will be updated or re-assessed.*

The reclamation security will be reassessed with a report provided to the landowners every eight (8) years.

iv. *When the reclamation security will be in place to be drawn upon, if needed.*

The reclamation security must be in place prior to the start of construction.

v. *What form the reclamation security will take (e.g., letter of credit, surety bond, other).*

The lease agreements provide that the reclamation security will take the form of a letter of credit in favour of each landowner.

vi. *The security beneficiaries to whom the reclamation security will be committed.*

The beneficiaries of the security will be the Project landowners.

vii. How the beneficiary can access the security and any constraints on such access.

The landowners have the ability to draw on the security in the event that the Project owner does not restore the land to the agreed standard.

SP20 – Noise

Provide a noise impact assessment in accordance with Rule 012.

Green Cat Renewables Canada was retained to conduct a noise impact assessment (“NIA”) in accordance with the current *Rule 012: Noise Control*. The results of the assessment are included in Attachment 11.

The NIA was completed under worst-case scenario modelling assumptions and utilized more and larger inverter units than are required to achieve the Project’s nameplate capacity of 450 MWac. The NIA under these assumptions concluded that no mitigation was required and the results are compliant with the criteria defined by *Rule 012*.

This approach best facilitated the removal, or relocation, of sound producing infrastructure, should changes be required based on final engineering requirements.

As a result of the PIP, layout changes have been incorporated in this application. These changes include:

- identification of the preferred Project substation location in LSD 13 of Section 5, which is the location modeled in the NIA; and
- removal of three (3) inverter units as a result of the reduced Project footprint.

SP21 – Approvals, Reports and Assessments from other Agencies

Identify any other acts (e.g. *Environmental Protection and Enhancement Act, Water Act, Public Lands Act, Highway Development and Protection 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 Utilities Commission Act, S.A. 2007, c.A-37.2;
- Alberta Land Stewardship Act, S.A. 2009, c.A-26-88;
- 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
- Public Highways Development Act, R.S.A. 2000, c.P-38;
- 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;
- Wildlife Act, R.S.A. 2000, c. W-10;
- Water Act, R.S.A. 2000, c.W-3; and,
- Weed Control Act, S.A. 2008, c. W-5.1.

The status of required approvals and permits and the status of each is included in Table 4 below.

Table 4: Agency Approvals and Referrals

Agency	Status
Alberta Transportation Solar Glare Review	Acceptance letter received. No mitigation required.
Transport Canada Aeronautical Assessment	Received. No protection required.
NAVCANADA Land Use Proposal	Assessment request was submitted to NAVCANADA on June 28, 2024.

Approvals and referrals from other agencies are provided in Attachment 12.

SP22 – Renewable Energy Referral Report

Submit a signed renewable energy referral report from Alberta Environment and Protected Areas 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.

The Renewable Energy Referral Report is provided in Attachment 13.

SP23 – Historical Resources

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.

The Historical Resources Act approval is provided in Attachment 14.

A targeted historical resource impact assessment (“HRIA”) has been requested by Alberta Arts, Culture and Status of Women (“AACSW”) along the collector routing through the Kneehills Creek valley, and in particular along the three (3) portions of the collector route that are to be directionally drilled beneath native grassland (2) and Kneehills Creek (1).

There are no known historical, archaeological, palaeontological or traditional use sites within the target HRIA area identified by the Heritage Division of AACSW.

SP24 – Indigenous Consultation Requirements

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.

ACCIONA accessed a Landscape Analysis Indigenous Relations Tool (“LAIRT”) report that identified the Treaty 7 Nations as Indigenous communities ordinarily requiring consultation.

ACCIONA contacted the Aboriginal Consultation Office (“ACO”) to seek guidance on Indigenous consultation requirements given that the Project

- is over 80km from any of the Treaty 7 Nations;
- is located entirely privately owned land; and
- does not require a *Water Act*.

The ACO advised that the Project did not meet the requirements for a Pre-Consultation Assessment.

Courtesy notifications, including a detailed Project information package, were provided to the Blood Tribe and the Siksika, Piikani, Stony Nakoda, and Tsuut’ina Nations.

No comments were received from the Treaty 7 Nations.

SP25 – Participant Involvement Program

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).

ACCIONA designed the PIP to ensure that all stakeholders have been:

- properly and adequately notified about the Project;
- provided the opportunity to provide input into Project planning;
- provided the opportunity to ask questions and have those questions addressed; and,
- provided the opportunity to raise and document any residual concerns.

A complete record of consultation is provided in the PIP Report (Attachment 15).

Consultation efforts also documented stakeholder comments on some topics which the AUC has previously heard in Proceeding 28501; the primary comment being the use of agricultural land for energy production.

During the execution of the PIP, ACCIONA became aware of the activities of an outside group that was planning to disrupt the open house event. The inability to provide a suitable environment for the exchange of information prompted ACCIONA to cancel the open house event and implement a direct consultation approach to share Project details with area stakeholders. This direct consultation approach involved personally addressed update letters to stakeholders within 800m of the Project boundary as well as occupants of any dwelling within 1,600m of the Project boundary. Personal consultation was also extended to any self-identifying interested party within 3,200m of the Project boundary. Open House materials were made available online, and the Proponent provided a booklet containing the Open House materials for those parties that chose to engage in personal consultation.

The direct consultation approach was successful in sharing Project information with local area residents. Many of those participating in direct consultation appreciated the opportunity to evaluate the Project proposal in a more private setting. Several parties that had engaged with Project representatives during initial consultation activities did not respond to multiple requests for a personal consultation after cancellation of the Open House. Where ACCIONA was able to secure a personal consultation, Project representatives reviewed the materials that had been prepared for the Open House and documented the consultation.

SP26 – Participant Involvement Program: Provincial Agencies, Railways, Aerodromes and Municipalities

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 relevant provincial agencies, host municipality and applicable railway companies were consulted.

- No aerodromes were identified within 4,000m of the Project boundary.
- CPKC Railway was identified as the owner of a small parcel of land between 400m and 800m of the Project boundary. CPKC was consulted and did not identify any concerns with the Project.
- Alberta Transportation was consulted as a portion of the Project occurs approximately 680m from a provincial highway intersection (Highway 583 and Highway 805). Alberta Transportation reviewed the SGHA prepared for the Project and provided a Solar Glare Review Acceptance letter indicating that no mitigation was required.
- A summary of the consultation conducted with Kneehill County, the host municipality, is provided in response to SP29.

A complete PIP Report is provided in Attachment 15. Please refer to Sections 4.5–4.9 of the PIP Report for the details specific to provincial agencies, railways, aerodromes and municipalities.

SP27 – Participant Involvement Program: Landowners, Residents and Occupants

List all occupants, residents and landowners on lands within the appropriate notification radius 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 complete PIP Report is provided in Attachment 15. Please refer to Appendix A of the PIP Report for these details.

SP28 – Participant Involvement Program: 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.

Contact information is provided in Attachment 16.

SP29 – Participant Involvement Program: Local Jurisdictions

Summarize consultation with local jurisdictions (e.g., municipal districts, counties).

A detailed account of the consultation with local jurisdictions is provided in Attachment 15. Please refer to Section 4.5 of the PIP Report for these details.

The Proponent initiated discussions with Kneehill County July 25, 2023. Representatives from Kneehill County advised that Council was opposed to renewable energy for various reasons. County representatives further advised that an update to the Kneehill County Land Use Bylaw (Bylaw No. 1889) was in progress and that the update would result in restrictions for renewable energy developments.

On April 2, 2024, the Proponent met with representatives of Kneehill County to introduce the preliminary Project boundaries, seek guidance on preliminary design concepts, and, review the newly amended Land Use Bylaw which included a prohibition for renewable energy on certain classes of land. Representatives from Kneehill County confirmed that Council remains opposed to renewable development and confirmed the previous guidance directing the Proponent to go through the AUC process before approaching Council. Representatives from Kneehill County further confirmed that consultation would continue to be handled at the development office level, and not at the elected office level.

On July 25, 2024, the Proponent met with representatives of Kneehill County to review, among other things, how the County's Land Use Bylaw conflicted with the policy guidance provided by the Government of Alberta by imposing a prohibition on lands rated as Classes 1-3 of the Canada Land Inventory ("CLI") rating system. The Proponent sought clarification on comments made by Kneehill County during AUC Proceeding 28501 during which the Reeve of Kneehill County advised the AUC that Kneehill County's intent was to encourage consideration of land with lower classifications if

possible, but that there was nothing within their bylaw that says development could not happen on those types of land¹. Administration advised that the submission made by Kneehill County in AUC Proceeding 28501 remains representative of Council's views.

On September 20, 2024, the Proponent met with the representative from Kneehill County to confirm the established consultation protocol through administration and to further discuss the land suitability rating. In regard to land suitability rating, the Proponent inquired about a recent Council meeting where changes to the rating criteria were discussed. The representative from Kneehill County advised that Council is considering the adoption of the LSRS rating criteria for non-agricultural activities. The representative advised that this process has just been initiated and could take some time to work through the municipal approvals process.

The Proponent subsequently enquired whether Kneehill County Council was also considering additional changes to the Land Use Bylaw, and in particular whether changes were being considered to align the Land Use Bylaw with the guidance provided by the Government of Alberta. The representative from Kneehill County advised that various options will be provided to Council for their review, but that a final decision on changes to the Land Use Bylaw would need to work through the municipal approvals process.

The representative from Kneehill County advised that Council would likely seek to participate in the AUC process to request due consideration for their Land Use Bylaw during the application review process.

Additional consultation information related to compliance with municipal planning instruments is provided in Section B5.2(3) of this application.

A complete PIP Report is provided in Attachment 15. Please refer to Section 4.5 of the PIP Report for these details.

SP30 – Participant Involvement Program: Documentation

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.

A complete PIP Report is provided in Attachment 15. Please refer to Section 4 of the PIP Report for these details.

¹ AUC Exhibit 28501_X0464, pp 474-475

Bulletin 2023-005 Supplemental Information Requirements

Bulletin 5 – Agricultural Land

- 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 (“SSSG”) attribute of the Land Suitability Rating System (“LandSuitabilityRatings”) table. SSSG provides the LSRS classification for spring-seeded small grains for the related AGRASID soil polygons. Provide a table showing the amount of area for each LSRS class impacted by the project in hectares (e.g. 2.01 hectares of Class 2A).

There are four distinct Project sectors, identified as NW-W, NW-E, East, and South. The intersection of the Project boundary and the LSRS classifications based on the provincial AGRASID database are as follows:

Dominant LSR Class	Sector					Total	
	NW-West	NW-East	East	South	MVC	Area	Percent
	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(%)
2	–	–	100.3	182.8	0.2	283.3	35.2%
3	165.7	280.4	–	51.7	1.7	499.5	62.0%
5	–	3.2	–	19.1	0.3	22.7	2.8%
Total	165.7	283.6	100.3	253.7	2.2	805.4	100.00%

In addition, the Proponent undertook to validate the information provided in the current version of the AGRASID, by using the established rating methodology², along with soil sampling and testing of select locations within the Project footprint. Field testing and subsequent evaluation of the Project land in accordance with the LSRS technical bulletin³ resulted in a meaningful increase of Class 3 rated land, owing in part to climate limitations, and in part to soil limitations³.

The resulting intersection of the Project boundary and the updated LSRS classifications (for SSSG) are as follows:

Final LSRS Rating	Most Limiting Factor	Sector					Total	
		NW-West	NW-East	East	South	MVC	Area	Percent
		(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(%)
2HA	Climate	–	21.1	3.3	–	<0.1	24.5	3.1%
3H	Climate	165.7	262.5	–	–	1.5	429.7	53.3%
3HV	Climate	–	–	–	51.7	–	51.7	6.4%
3HV(3DH) ⁽¹⁾	Climate	–	–	–	182.2	–	182.2	22.6%
3MH-4MH ⁽²⁾	Soil	–	–	95.3	–	0.2	95.5	11.9%
3IDH	Landscape	–	–	–	0.5	–	0.5	0.1%

² Technical Bulletin 1995-6E published by Agriculture and Agri-Food Canada

³ Please refer to the Soils Report included in the AUC Rule 007 application

3IVHA	Landscape	-	-	1.6	-	-	1.6	0.2%
5IWH	Landscape	-	-	-	0.1	-	0.1	0.0%
5TH	Landscape	-	-	-	19.1	0.4	19.6	2.4%
Total		165.7	283.6	100.3	253.7	2.2	805.4	100.0%

The complete Soils Report is provided in Attachment 17.

- From the Agricultural Regions of Alberta Soil Inventory Database (AGRASID), please describe all soil series within the project area and report all potential material impacts to:

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

Describe how these material impacts to soil quality, quantity and hydrology will be adequately mitigated during construction, operation and reclamation.

This information is contained in the Environmental Evaluation (Attachment 8 to this application), the Site Specific Environmental Protection Plan (Attachment 9 to this application), the Initial Conservation and Reclamation Plan (Attachment 10 to this application) and the Soils Report (Attachment 17 to this application).

- 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, etc.).

- 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 replacement on site.
- Description of how soils will be replaced on site to preserve the quality, quantity and hydrology of the disturbed soils.

This information is contained in the Environmental Evaluation (Attachment 8 to this application), the Site Specific Environmental Protection Plan (Attachment 9 to this application), the Initial Conservation and Reclamation Plan (Attachment 10 to this application) and the Soils Report (Attachment 17 to this application).

- Describe the potential for co-locating agricultural activities (e.g. grazing, haying, crops, apiculture) into the project design. If co-locating agricultural activities is not feasible, please explain why.

This information is contained in the Potential for Co-Locating Agricultural Activities document provided as Attachment 18 to this application.

- List the qualifications of the agrologist(s) who prepared or reviewed the responses regarding agricultural land.

The qualifications of the individuals that completed the Environmental Evaluation and the Soils Report are provided in Attachment 8 and Attachment 17, respectively.

Bulletin 5 – Municipal Land Use

1. Confirm whether the proposed power plant complies with the applicable municipal planning documents including municipal development plans, area structure plans, land use by-laws and other municipal by-laws.

The proposed Project complies with all but one (1) component of the Kneehill County Land Use Bylaw as amended for renewable energy on February 2, 2024. Compliance metrics are identified in the table below.

Land Use Bylaw Section	Land Use Bylaw, Component	Requirement	Compliance
4(d)	Hamet of Torrington, Alberta	2 mile (3,200m) setback	Yes
4(e)	Keiver's Lake	2 mile (3,200m) setback	Yes
12(1)(b)	Native Prairie	Prohibition on the use of native grasslands	Yes
12(1)(b)	Protection of Agricultural Land	Prohibition on the use of Class 1-3 as defined in the Canada Land Inventory ("CLI") rating system	No

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

The proposed power plant does not comply with Section 12(1)(b) of the Kneehill County Land Use Bylaw, and specifically the prohibition the siting of renewable energy facilities on lands rating as Classes 1-3 as defined in the CLI rating system.

The Proponent has developed the Project in accordance with all provincial and federal regulations, as well as the policy guidance provided by the Government of Alberta on February 28, 2024.

Specific to the non-compliance, the Proponent submits that the prohibition enacted by Kneehill County is in contradiction to the policy guidelines outlined by the Minister of Utilities and Affordability in his direction to the AUC on February 28, 2024. That policy letter clearly identifies the direction of the Government of Alberta in allowing the use lands having an AGRASID SSSG rating of Class 3 without restriction, while requiring any lands having an AGRASID SSSG rating to Class 1 or Class 2 to demonstrate the potential for co-location of agricultural activity within the Project boundary.

The AGRASID SSSG rating for the Project is approximately 97% Class 3 and 3% Class 2 as detailed in the response to the Bulletin 005 supplement information requirements provided in this application. The Proponent has further identified the potential for co-locating agricultural activities on 100% of the Project land, exceeding the policy guidance provided by the Government of Alberta.

While mindful of the Kneehill County's land use authority regarding development within its municipal boundaries, decisions related to the public interest require a broader perspective than that offered by more regional planning instruments⁴.

SP29 and Section 4.5 of the PIP Report (Attachment 15) provide additional detail on the consultation with Kneehill County in this regard.

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

⁴ AUC Exhibit 28086_X[]_Decision-D01-2024

Details of engagement with Kneehill County related to municipal planning instruments are provided in the response to SP29 and in Section 4.5 of the PIP Report (Attachment 15). The engagement record documents discussions related to land classification, required and voluntary setbacks, development permit requirements and the County's Land Use Bylaw.

In addition to these discussions, the Proponent identified the predicted glare results along Township Road 320 has having the potential to adversely impact the municipality. On July 25, 2024 the Proponent met with representatives from Kneehill County and identified a modest amount of yellow glare predicted over a 6.5 km stretch of Township Road 320 (3,716 minutes per year).

The Proponent identified that preliminary Project planning did not include a SAT system, which was added after reviewing the preliminary SGHA to address glare predictions along Township Road 320. The Proponent advised that the SAT portion of the array effectively mitigated these preliminary results. The Proponent then reviewed the details of the updated SGHA including:

- the times of the day and periods of the year when glare was predicted;
- the duration of glare both in terms of annual totals and daily maximums;
- the coincidence of the sun and how it is the dominant ocular hazard during times when glare is predicted;
- the extent and intensity of glare in relation to the sun and specifically how glare from the Project is 434 times dimmer than that created by the sun; and
- the conclusion of the SGHA which did not recommend mitigation at this time.

The Proponent advised that a majority of these remaining glare predictions could be mitigated by adding resting angle limitations to the SAT portion of the array and expressed a preference to implement this mitigation should the actual glare experienced along Township Road 320 be determined to be an issue during the Project's operation.

On August 9, 2024, the Proponent met with representatives of Kneehill County to follow-up on discussions related to glare. This meeting provided Kneehill County access to the technical expert from the Green Cat Renewables, author of the SGHA. The Proponent's representatives reviewed key aspects of the SGHA including duration and intensity of glare, in the context of what drivers along Township Road 320 might experience. During this discussion, the Proponent also provided County representatives with examples of glare scenarios for them to better understand the predictions.

Bulletin 5 – Viewscapes

List and describe pristine viewscapes (including national parks, provincial parks, culturally significant areas, and areas used for recreation and tourism) on which the project will be imposed. Describe mitigation measures available to minimize impacts from the project on these viewscapes.

Significant separation exists between the Project area and any provincial parks or designated natural areas, thereby not affecting any of these viewscapes. A listing of these viewscapes is provided in Table 5 below.

Table 5. Public Viewscapes

Potentially Affected Vandscape	Distance and Direction from Project
Bigelow Reservoir Provincial	20km NE
Rumsey Natural Area	60 km NE
Lockerbie Conservation Site	45km NE
Springbrook Natural Area	50km NW
Midland Provincial Park	128km SE

One public campground (Keivers Lake Campground) is located 4 km southeast of the Project. This area is heavily screened by an existing shelterbelt of trees and is isolated by existing topography, making the Project not visible from the campground.

Bulletin 5 – Reclamation Security

Describe the reclamation security program for the proposed power plant, including details on:

The standard to which the project site will be reclaimed to upon decommissioning.

- How the amount of the reclamation security will be calculated.
- The frequency with which the reclamation security amount will be updated or re-assessed.
- When the reclamation security will be in place to be drawn upon, if needed.
- What form the reclamation security will take (e.g., letter of credit, surety bond, other).
- The security beneficiaries to whom the reclamation security will be committed.
- How the beneficiary can access the security and any constraints on such access.

Please refer to the response provided to SP19.

Bulletin 2024-008 Enhanced Interim Information Requirements

B8.1 – Estimated Reclamation Cost

A report prepared by a third party estimating the costs of reclaiming the proposed project. The report must include the estimated salvage value of project components.

The preliminary third party cost estimate is provided in Attachment 19. The reclamation cost estimate will be updated prior to the start of construction to provide a current metric for the reclamation security.

B8.2 – Form of Reclamation Security

An explanation of why the chosen form of security was selected, having regard to its attributes and priority in bankruptcy, including how the secured party would be able to realize on the reclamation security should the project owner and operator be in default.

The form of reclamation security is an irrevocable Letter of Credit in favour of the Project landowners.

This form of security was chosen during the commercial contractual negotiations between the landowners and the Project owner as it is unaffected by a bankruptcy of the Project owner.

The landowner (secured party) will be able to realize on the reclamation security if the Project owner does not remove its Project facilities and all personal property and restore the property to as nearly as possible to its original condition, and in accordance with laws and regulations of the Province of Alberta at the time.

Substation Application

TS1

Provide a description of the proposed project.

The Project substation will be approximately located centrally within the Project footprint in LSD 13-05-32-26 W4M within an allocated area of approximately 115m by 120m.

The Project substation will consist of:

- 240kV busbar in a simple bus configuration;
- one transmission line 240kV motorized disconnect with a 240kV line breaker;
- three 240 kV transformer breakers with associated disconnect switches;
- three 240-34.5 kV 100/133/167 MVA transformers;
- 34.5 kV switchgear building; and
- an enclosed operations buildings and associated substation equipment (surge arrestors, cabling, panels, lighting protection etc.).

The substation location was identified due to central location within the Project site assumed the preferred route from the existing 240kV transmission line.

The .kml/.kmz files are provided in Attachment 2.

TS2

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

This application is for a customer owned 240/35 kV collector substation that will be used solely by the customer.

TS3

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 licence. Confirm that the applicant is a qualified owner.

See the response provided in SP3.

TS4

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

See the response provided in SP2.

TS5

Provide a copy of the 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 the Transmission Regulation (as described in subsection 7.1 of this rule).

Not applicable. The substation being applied for as part of the power plant application. Connection facilities are to be completed by the TFO, who will provide this information in their Facilities Application.

The Alberta Electric System Operator (“AESO”) is preparing to file the Abbreviated Need Identification Document related to this Project in Q1 2025.

TS6

Provide the most up-to-date functional specification issued by the ISO.

The most recent AESO Function Specification is provided in Attachment 20.

TS7

Describe the design and ratings of the transmission line and major elements of the substation.

Transmission Line: Not applicable. This is to be provided by the TFO in their Facilities Application.

Substation: The major elements of the Lone Butte 1801S is described in the response to TS1.

TS8

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. This is to be provided by the TFO in their Facilities Application.

TS9

If the application is not directly assigned by the ISO, provide the rationale for the rating/size of any proposed conductor or piece of major substation equipment.

The substation application was assigned by the ISO to the Proponent.

TS10

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. This is to be provided by the TFO in their Facilities Application.

TS11

State the right-of-way width and the basis for determining the width.

Not applicable. This is to be provided by the TFO in their Facilities Application.

TS12

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

The list of equipment that will be in the substation is provided in the response to TS2.

Telecommunications will be facilitated by erecting a communication array within the substation. The height of the communications structure will be approximately 50m above ground level.

TS13

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

Not applicable. This is to be provided by the TFO in their Facilities Application.

TS14

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. This is to be provided by the TFO in their Facilities Application.

TS15

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

The proposed substation is a new development. The transmission line connecting to it will require modifications to 929L which will be the subject to a separate application by the TFO to the AUC.

TS16

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. This is to be provided by the TFO in their Facilities Application.

TS17

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 and the substation layout diagram are provided in Attachment 21.

A map showing the substation location within the Project site is provided in Attachment 3.

TS18

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

The substation development will be executed as an EPC contract utilizing a company that specializes in high voltage substation design and construction. The engineering activities will be taking place concurrent with the AUC review of this application whereas construction activities will only commence once permit and license has been granted.

The construction schedule for the substation is identified in the response to SP7.

TS19

Provide the requested approval date from the AUC, 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(s) and licence(s).

The requested approval date and construction schedule is identified in the response to SP7.

TS20

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 a permit and licence.

The footprint identified for the substation is approximately 5 acres. The permanent substation requirement is approximately 3.5 acres (115m x 120m). Temporary workspace for the substation will be within the overall Project fenceline.

TS21

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

- i. A legible map defining the study area and state the reasons for the chosen area.

The map of the substation location relative to the solar development sites is provided in Attachment 3.

- ii. Legible maps of the proposed facilities showing:
 - The preferred transmission line route and any alternative routes or segments.
 - Right-of-way widths.
 - Location of the transmission line on the right-of-way.
 - Location of the transmission line relative to property lines.
 - Kilometre points along each transmission line route.

Not applicable. This is to be provided by the TFO in their Facilities Application.

- 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).

Not applicable as there is no transmission line associated with this application. This is to be provided by the TFO in their Facilities Application.

Other Project area maps are provided in Attachment 3.

TS22

Provide a Keyhole Markup Language (.kml/.kmz) file that contains the geographic data of the transmission line centrelines 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 information requirement TS21.

Transmission: Not applicable as there is no transmission line involved in this application. This is to be provided by the TFO in their Facilities Application.

Substation: The Keyhole Markup Language file for the substation location is provided in Attachment 2.

TS23

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:

The substation is located on agricultural lands in an area of low population density. The substation location is approximately 100m from an existing county road, with the nearest residence being approximately 1,200m to the south. During the engagement process with area stakeholders, the owner of the nearby residence requested ACCIONA to consider incorporating some type of screening measure within the Project fence design along the south side of Section 5.

TS24

Submit an environmental evaluation of the project.

Please refer to the response provided in SP15.

TS25

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 and Rule 012 and describe the steps taken, if any, to address specific requirements set out in these rules.

Please refer to the response provided in SP16.

TS26

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 the response provided in SP16. The Project Specific Environmental Protection Plan is provided in Attachment 9.

TS27

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.

There are no existing transmission facilities on this site.

TS28

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.

An NIA was conducted in accordance with AUC Rule 012: *Noise Control* to predict the potential noise impact of the Project including the substation as defined by Rule 012: *Noise Control* (AUC 2017). Please see the response to SP20. The NIA is provided in Attachment 11.

TS29

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 the response provided in SP21.](#)

TS30

For the preferred route and possible alternatives, applicants must provide a summary of feedback received to date from AEP (including the local wildlife biologist of AEP) addressing the environmental aspects of the project, and confirmation that AEP is satisfied with any proposed mitigation measures and monitoring activities, or identify any unresolved project aspects where agreement with AEP was not achieved.

[Not applicable as there is no transmission line associated with this application. This is to be provided by the TFO in their Facilities Application.](#)

TS31

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 the response provided in SP23.](#)

TS32

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 the response provided in SP25.](#)

TS33

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

[Please refer to the responses provided in SP24, SP26, SP27, and SP28.](#)

TS34

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 the response provided in SP28.](#)

TS35

Summarize consultation with local jurisdictions (e.g., municipal districts, counties).

Please refer to the response provided in SP29.

TS36

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 resolve the concern(s).
- Whether the concerns(s) was resolved.

Please refer to the response in provided SP30.

TS37

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. The substation is wholly owned by the Proponent. The cost of construction of the Lone Butte 1081S substation is private and not subject to disclosure.

TS38

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.

TS39

If an energy storage facility is to be constructed and operated as part of a transmission line, the applicant must also submit the information specified in Section 10. TS40) An applicant seeking to construct and operate an energy storage facility as part of a transmission line must provide the approval number for the associated needs identification document application.

Not applicable.

TS40

An applicant seeking to construct and operate an energy storage facility as part of a transmission line must provide the approval number for the associated needs identification document application

Not applicable.