Submission to the Alberta Utilities Commission Power Plant & Interconnection Application

Harvest Sky Solar Farm 15MWac Hanna, Alberta

List of Acronyms

ACO	Aboriginal Consultation Office
AEPA	Alberta Environment and Protected Areas
AGRASID	Agricultural Regions of Alberta Soil Inventory Database
AUC	Alberta Utilities Commission
DFO	Distribution Facility Owner
EPP	Environmental Protection Plan
ERP	Emergency Response Plan
HEEA	Hydro and Electric Energy Act
HRA	Historical Resources Act
ISO	Independent Systems Operator
km	Kilometre
kV	Kilovolt
LSD	Legal Subdivision
LSRS	Land Suitability Rating System
LUB	Land Use Bylaw
m	Metres
MDP	Municipal Development Plan
MW	Megawatt
NIA	Noise Impact Assessment
PIP	Participant Involvement Program
REO C&R	Renewable Energy Operations Conservation and Reclamation

Executive Summary

Project Overview

PACE Canada Development LP (“PACE”) proposes to construct and operate a 15-megawatt-ac (MWac) photovoltaic solar farm development on 171 acres of privately owned pastureland within the urban boundaries of the Municipality of Hanna.

Connection:

- ATCO Hanna 763S
- 72kV Feeder

Legal land description:

ATS:

- SW Mer 4 - Range 14 - Township 31 - Section 10
- NW Mer 4 - Range 14 - Township 31 - Section 3
- SW Mer 4 - Range 14 - Township 31 - Section 10

Long and Latitude Coordinates:

- 51°38'23.84"N & 111°54'51.58"W at the approximate centre point.

PACE has completed and uploaded the following deliverables per AUC’s Rules 007 and 012, including a solar glare hazard assessment, a noise impact assessment, an environmental evaluation inclusive of an environmental protection plan inclusive of conservation and reclamation plan. The study findings were completed by hired consultants Green Cat Renewables and Strum Consulting (formerly McCallum Environmental Ltd.).

The experts who completed these studies determined no adverse solar glare, noise, wildlife or wetland impacts, and that the project complies with all rules and regulations.

Project Schedule

The preliminary Project schedule is as follows:

Initial Public Notification	February 13, 2023
Personal Consultation	April 2023-April 1, 2024
AEP Referral Waiver Letter	April 12, 2023
AUC Application	August 30, 2024
Anticipated AUC Approval	Dec. 15, 2024
Municipal Development Permit Application	Post-AUC application submission
Municipal Development Permit Approval	Post-AUC application submission
Construction Start	April 1, 2025
Commercial Operation Date	March 1, 2026

Corporate Information

PACE is a limited partnership jointly and equally owned by Pathfinder Clean Energy, a UK-based global clean energy development and investment company, and Goldbeck Solar Investments, a German firm specializing in constructing large-scale solar power plants with a comprehensive offering that positions it as a gateway to solar energy. The Harvest Sky Project (the Project) is being developed by PACE Canada Development LP, trading on behalf of its general partner, 2518365 Alberta Ltd.

PACE focuses on creating a market-leading platform for clean energy development and investment in Canada. PACE develops and manages every aspect of its clean energy projects, from site selection to permitting, design, financing, and offtake agreements. PACE has constructed and energized Joffre 1 & 2 (47MW) and Youngstown (6MW). We have permitted Hanna Sheerness (13MW) and Viking (9MW) and have several projects at various stages of the AUC permitting and AESO process.

See the uploaded document:

PACE Corporate Certificate
Click on the page icon to access the exhibit.

SP01 – Requested Approval

State the approvals that are being applied for from the AUC and describe the power plant and collector system, including the number of solar photovoltaic panels and their make, model and the nominal capability of each solar photovoltaic panel in MW and the total capability of the power plant in MW, including battery storage, if applicable. If the vendors have not been selected or the equipment has not been finalized, provide:

- The total capability of the power plant in MW, including battery storage, if applicable.
- The anticipated type and number of solar modules, the physical dimensions of the solar array and the type of solar tracking system, if applicable.

PACE proposes a 15MWac utility-scale photovoltaic solar farm within the urban boundaries of Hanna, Alberta. The proposed Project will be built on 171 acres of privately owned pastureland with no Class 1 or 2 ratings. The electricity produced will be connected to the ATCO distribution network, tying into a 72 kV line and connecting to the broader electricity grid via ATCO, Hanna 763S substation. A Battery Energy Storage Application will follow at a future date.

The Project is designed to include 44,016 Longi LR5 72HBD 545M 545wp bi-facial photovoltaic mono-silicon solar panels and 3 SMA MV, 4000kW inverters. The solar panels will be installed on a single-axis tracking system and a fixed tilt system supported by steel piles driven into the ground. Solar racking rows will be approximately 9 meters (m) apart and 2.9 m in height. The electrical collector systems will be installed above ground. Direct current (DC) electrical cabling will run from the combiner boxes underground to the inverters. Alternating Current (AC) electrical cabling will run from the inverters to the electrical house and switchgear building. The project will also include an access road, a small construction parking area, and a temporary laydown and storage area. The project area will be secured and enclosed with a six-foot chain link security fence with access points for maintenance and emergency response.

SP02 – Existing Approvals

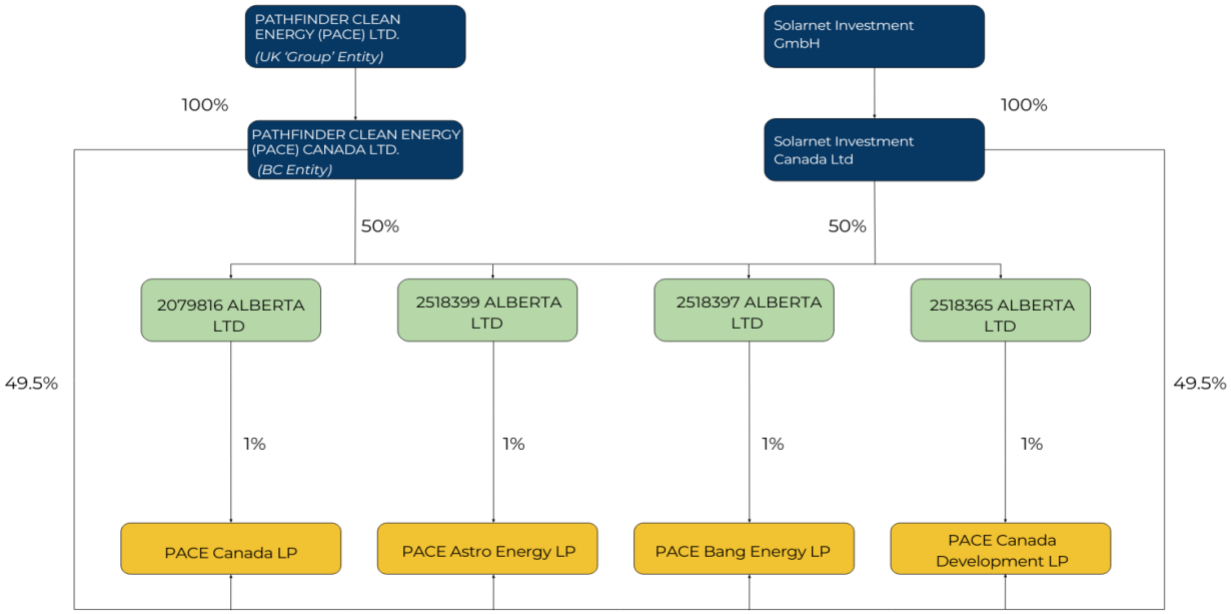
Provide a list of existing approvals for facilities directly affected by this project, if any.

There are no existing approvals directly affected by this Project.

SP03 – 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.

PACE Canada Development LP is a joint venture between Pathfinder Clean Energy in the UK and Solarnet Investment, now Goldbeck Investments in Germany.



SP04 – 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.

SP05 – 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.

The proposed Project is situated on 171 acres of privately owned pastureland within the municipal boundaries of the Municipality of Hanna.

The legal description of the land on which the proposed Project will be located is as follows:

ATS:

- SW Mer 4 - Range 14 - Township 31 - Section 10
- NW Mer 4 - Range 14 - Township 31 - Section 3
- SW Mer 4 - Range 14 - Township 31 - Section 10

Long and Latitude Coordinates:

- 51°38'23.84"N & 111°54'51.58"W at the approximate centre point.

A kml file containing the geographic data, solar array, substation location and project boundaries of the proposed Project can be found in the uploaded document:

Harvest Sky - Keyhole Markup Map

Harvest Sky – Provisional Layout
Click on the page icon to access the exhibit.

SP06 – 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.

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.

For a plant site drawing showing the solar array, collector substations, collector lines access roads and the power plant site boundary, **see the uploaded document:**

Harvest Sky - Provisional Layout
Click on the page icon to access the exhibit.

For landownership, including any residences and dwellings with the notification radius, **see the uploaded document:**

Harvest Sky - Map of Landowners
Click on the page icon to access the exhibit.

For the remaining drawing and maps**, see the uploaded document:**

Harvest Sky - Keyhole Markup Map

SP07 – 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.

PACE requests a construction permit approval date of December 1, 2024, from the Alberta Utilities Commission. Construction is expected to start on April 1, 2025, and be completed on February 1, 2026. The expected in-service date is March 1, 2026.

Project Connection

SP08 – 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 being applied for concurrently.

SP09 – 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.

PACE Asset identification code: not currently available until Cluster 2 studies are available.

ISO ID number: P2690

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 project is connected to the distribution system via ATCO, substation 763S substation, 25kv line, Feeder 2233L.

See the uploaded documents:

Harvest Sky - ATCO Letter of Non-objection

Click on the page icon to access the exhibit.

Harvest Sky - Provisional Layout

Click on the page icon to access the exhibit.

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.

PACE confirms it has a draft of a site-specific emergency response plan in coordination with local first responders.

See the uploaded document:

Harvest Sky - Draft Emergency Response Plan
Click on the page icon to access the exhibit.

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 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: worker injuries
- Severe Weather/Catastrophic Emergency: thunderstorms, floods, wind and downed power lines, hail, snow and ice.
- Fire: small fires, large fires, wildland/grassfire or electrical fire
- Hazardous Material Emergency: Chemical spills, equipment failures, and environmental conditions are dangerous to personnel.

The site will be monitored by a company hired by PACE to conduct dispatch control and a 24/7 monitoring station.

See the uploaded document:

Harvest Sky - Draft Emergency Response Plan

Click on the page icon to access the exhibit.

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.

On August 16, 2023, PACE shared a draft Emergency Response Plan with the Town of Hanna's Fire Chief, David Mohl. On January 9, 2024, PACE consulted with Fire Chief Mohl to gather his feedback and any concerns.

The following feedback was gathered:

- Barriers around areas where potential welding is taking place along with onsite fire extinguishers, both class A & C
- Onsite water storage in the event potential welding or other fire risk activities may occur, supplied by an offsite water source solely for construction.

After the AUC approval, the local responders requested that the following details be included in the ERP before construction commences.

- A map detailing road, access points & flow of traffic
- Planned escape routes
- Gate entry code

Site-specific details will be added to the ERP post-AUC permitting and shared with fire authorities before the start of construction.

See the uploaded document:

Harvest Sky - Draft Emergency Response Plan
Click on the page icon to access the exhibit.

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.

Green Cat Renewables (“GCR”) was hired to conduct a Solar Glare Hazard Analysis Report (“SGHAR”) for the Project following the guidelines provided in AUC Rule 007 for the receptors.

See the uploaded documents:

Harvest Sky - Solar Glare Hazard Analysis (SGHA) Report
Click on the page icon to access the exhibit.

Harvest Sky - Solar Glare Impact Map
Click on the page icon to access the exhibit.

Harvest Sky - Solar Flight Path Glare Impact Map
Click on the page icon to access the exhibit.

SP15 – Environmental Evaluation

If preparation of either a federal impact assessment or a provincial environmental impact assessment report is 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 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.

PACE retained Strum Consulting (formerly McCallum Environmental Ltd.) to complete the environmental evaluation for the Project.

See the uploaded documents:

Harvest Sky - Environmental Evaluation
Click on the page icon to access the exhibit.

Harvest Sky - AEP Waiver Letter
Click on the page icon to access the exhibit.

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; The Project is not located on federal lands.

See the uploaded document:

Harvest Sky - LAIRT Map
Click on the page icon to access the exhibit.

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.

PACE retained Strum Consulting (formerly McCallum Environmental Ltd.) to complete an Environmental Protection Plan for the Project.

See the uploaded document:

Harvest Sky - Environmental Protection Plan
Click on the page icon to access the exhibit.

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.

PACE retained Strum Consulting (formerly McCallum Environmental Ltd.) to complete ta Conservation and Reclamation Plan for the Project.

For the Conservation and Reclamation, see the Environmental Protection Plan, pp. 8

Harvest Sky – Environmental Protection Plan

Click on the page icon to access the exhibit.

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.

See the uploaded documents:

PACE Decommissioning Financing Structure

Click on the page icon to access the exhibit.

PACE Reclamation Security

Click on the page icon to access the exhibit.

Harvest Sky – Reclamation Report

Click on the page icon to access the exhibit.

PACE RBC Letter of Credit

Click on the page icon to access the exhibit.

Noise

SP20 – Noise Impact Assessment

Provide a noise impact assessment in accordance with Rule 012.

PACE retained GCR to complete a Noise Impact Assessment (NIA) in accordance with Rule 012.

See the uploaded document:

Harvest Sky - Noise Impact Assessment

Click on the page icon to access the exhibit.

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 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.

Other approvals the Project may require include:

- NAV Canada – Approval was received on May 9, 2024.
- Transport Canada— Approval was received on August 1, 2024.
- Historical Resources Act – Approval was received on January 12, 2024
- Alberta Environment and Protected Areas – A waiver letter was received on April 11, 2023
- The town of Hanna Development Permit Application will be submitted following the submission of the AUC application.
- Alberta Transportation comments were received on January 12, 2024, that an intergovernmental referral is required. A permit will be pursued concurrently with the Project's AUC application.

See the uploaded documents:

Harvest Sky - AEP Waiver Letter
Click on the page icon to access the exhibit.

Harvest Sky - Transport Canada

Click on the page icon to access the exhibit.

Harvest Sky – NavCanada

Click on the page icon to access the exhibit.

SP22 – Renewable Energy Referral Report

Submit a signed renewable energy referral report from Alberta Environment and Parks (AEP) Fish and Wildlife Stewardship. If the applicant is unable to provide a renewable energy referral report at the time of application, the applicant must clearly identify the reason and provide details of its status.

The proposed project is located within an urban area and, therefore, is not subject to Wildlife Directives. A waiver letter from Alberta Environment and Protected Areas (AEPA) Fish and Wildlife Stewardship was received on April 11, 2023.

See the uploaded document:

Harvest Sky - AEP Waiver Letter
Click on the page icon to access the exhibit.

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.

See the uploaded document:

Harvest Sky - Historical Clearances Act
Click on the page icon to access the exhibit.

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).

There is no crown land within the consultation or notification radius, no expected off-site impacts, and no Indigenous groups have access to the site to exercise Section 35 rights. The Project received Historical Resources Act approval on January 12, 2024. PACE pulled a LAIRT report as per AUC Rule 007 recommendations. The closest indigenous community is the Siksika Nation, located 146 km from the Project.

See the uploaded document:

Harvest Sky - LAIRT Map
Click on the page icon to access the exhibit.

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).

The PIP Report includes a description of the activities undertaken and any engagement materials provided.

See the uploaded document:

Harvest Sky - PIP Report
Click on the page icon to access the exhibit.

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 as an unregistered aerodrome within 4,000 metres of the project boundary was consulted, and provided a summary of any objections received, mitigations discussed, and any outstanding objections.

Alberta Transportation

An intergovernmental referral is required for an Alberta Transportation permit. A permit application has been submitted and will be uploaded to the proceeding when received in two to three weeks.

CN Rail

CN was sent a stakeholder notification package, and follow-up was conducted via email to ensure they had no unanswered questions or concerns. CN confirmed they have no questions or concerns with the project.

Registered Aerodromes

PACE engaged Angela Grott from Alberta Health Services Hanna Health Centre, who was sent a stakeholder notification package. A follow-up was conducted via email to ensure they had no questions or concerns since there is a helipad at their facility. The Hanna Health Centre and AHS have no concerns with the project.

No known unregistered aerodromes were identified within 4km of the Project.

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 who were consulted as part of the participant involvement program.

See the uploaded document:

Harvest Sky - Map of Landowners

Click on the page icon to access the exhibit.

SP28 – Stakeholder Contact Information

Supply a list of contact information for all persons who have 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.

See the uploaded document:

Harvest Sky - Contact List

SP29 – Municipal Consultation

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

See the uploaded document:

Harvest Sky - PIP Report

Click on the page icon to access the exhibit.

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.

See the uploaded document:

Harvest Sky - PIP Report
Click on page icon to access the exhibit.

Interconnection Application

IC1 – Connection to the distribution system

Provide a statement that the local distribution facility owner has agreed to the interconnection, the legal subdivision (LSD) of the interconnection point, and an electric single-line diagram showing the interconnection point with the distribution facility owner.

ATCO has agreed to connect the project to the distribution grid.

See the uploaded document:

Harvest Sky - ATCO Letter of Non-Objection
Click on the page icon to access the exhibit.

Harvest Sky – SLD
Click on the page icon to access the exhibit.

IC2 – Connection to the transmission system

Provide a statement from the ISO, at such time determined by the ISO, that endorses the interconnection and confirms that the interconnection will not result in adverse effects to the interconnected electric system.

Not applicable; this Project is connected to the distribution system.

AUC Interim Requirements

Agricultural land requirement 001:

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 ("LandSuitabilityRatings") table. SSSGRAIN provides the Land Suitability Rating System (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).

CODE	PROJECT	AGRASID POLY ID	LSRS DESCRIPTION	Overlapping project area (hectares)	% of Project within AGRASID Polygon
ABM471	Harvest Sky	3438	5M(10) 100% of the land is Class 5 with severe agricultural limitations.	83.3	100

The Farm Plan being developed for the Project area is designed to improve the agricultural yield of the Project area relative to its current production due to decisions informed by the results from soil sampling, active farm management, use of soil amendments and proper crop selection. Agronomic experiments guided by Steven Tannas are planned for Spring 2024.

See the uploaded documents:

Harvest Sky - Agrivoltaics Report
Click on page icon to access the exhibit.

Harvest Sky – Keyhole Markup Map

Agricultural land requirement 002

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.

The Agricultural Region of Alberta Soil Inventory Database was consulted to provide soil data in the project area (Alberta Soil Information Viewer, 2019). The following soil series are found within the Project boundary:

Polygon ID	Map Unit Name	Soil Subgroup	Drainage
3438	HKTL1/H1le	Dark Brown Solodized Solonetz	Moderately Well

3438: The soils are characterized as Dark Brown Solodized Solonetz on medium textured (L, CL) till (HKR). Dark Brown Solodized Solonetz on variable textured till over softrock (TLA). The polygon may include soils that are not strongly contrasting from the dominant or co-dominant soils (1). Hummocky, low relief landform (eroded pits) with a limiting slope of 6% (H1le). Due to the water holding capacity, crops are adversely affected by lack of water due to inherent soil characteristics.

PACE confirms that there will be no material impacts on the hydrology of the Project area. **See Section 7, "Soils Handing" pp 9-11, for a description on the material impacts to the soil quality, quantity and hydrology** and how it will be mitigated during the construction, operation and reclamation of the Project in the uploaded document:

Harvest Sky - Environmental Protection Plan
Click on page icon to access the exhibit.

The Conservation and Reclamation Plan section also contains a section on Wetlands Protection and suggests that PACE take further steps to improve wetlands. These improvements will be incorporated into the Environmental Protection Plan. Therefore, the project will not impact any environmentally sensitive area.

See Section 11, pp 14. of the uploaded document:

Harvest Sky - Environmental Protection Plan
Click on page icon to access the exhibit.

Alberta Environment and Protected Areas ('AEP') have indicated that no further assessment or mitigation is required because the Project is sited within urban boundaries. PACE submits that the Project will not adversely affect wildlife, wetlands, or water bodies in the Project area.

A copy of the correspondence received from AEP may be found in the uploaded document:

Harvest Sky – AEP Waiver Letter
Click on the page icon to access the exhibit.

Agricultural land requirement 003

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

- Foundations for infrastructure is anticipated to be piles (for solar panel areas) and piles and/or concrete pads (for inverter/transformers stations, switchgear, neutral grounding reactors and control house). PACE is also exploring using helical piles to reduce soil disturbance and the noise level during construction hours experienced with using driven piles.
- The solar panels, inverters, and a control house will occupy a total surface area of approximately 28.9 ha. The entire project, except for new access roads, control house, inverter, and transformer pads, is anticipated to be covered with low-growing perennial vegetation for grazing sheep. Of the total area impacted by the solar installation less than 7 acres will be altered from existing conditions. This represents the piling area, service roads and electrical equipment foundations.
- Permanent gravel access roads will be constructed using a suitable depth of granular material. Topsoil will be removed, and a berm created and seeded to prevent erosion. PACE is exploring a 0-disturbance road construction method that would see roads built on the surface of existing seed beds using filter fabric and varying sizes of aggregates. This will reduce soil stripping onsite.

Earthworks are described in Section 7.1, pp. 9-11, pp 17-19, and Sections 14.1 and 14.2 of the uploaded document:

Harvest Sky - Environmental Protection Plan

Click on page icon to access the exhibit.

Agricultural land request 004:

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.

PACE is collaborating with Steven Tannas of Tannas Conservation Services Ltd. and Dr. Rhonda Millikin from Nativus, serving as PACE's Chief Sustainability Advisor, to create an innovative Agrivoltaics Farm Plan ("AFP"). This initiative is designed to harmonize agricultural production with habitat enhancement, ensuring sustainable and productive farmland use alongside solar development. The AFP aims to provide a comprehensive strategy for agrivoltaic sites over seven years, focusing on boosting crop yields, minimizing pesticide and fertilizer use, and enhancing overall agricultural practices. It seeks to enrich soil health, increase yield, and improve the nutrient profile of the operations, ultimately leading toward organic certification for numerous projects.

The AFP will detail procedures for setting up a sustainable agricultural system, incorporating strategies for managing invasive species, controlling erosion, achieving organic certification, and implementing soil sampling and data analysis. It emphasizes the integration of advanced technologies, zero-emission vehicles, effective crop rotation, and club root mitigation to bolster farming efficiency and environmental stewardship. Soil samples from the project area will undergo thorough analysis to inform future agricultural practices and rotations.

Moreover, the plan will evaluate current land use and farming techniques to recommend enhancements, establish a robust monitoring framework for soil and ecosystem health, and adapt management strategies based on emerging insights. Periodic soil assessments will ensure the continuous improvement of agrivoltaic site management.

For further details on integrating agrivoltaics, see the uploaded document:

Harvest Sky—Agrivoltaic Report
Click on page icon to access the exhibit.

Agricultural land request 005:

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

See the uploaded document:

Harvest Sky – Qualifications

Click on the page icon to access the exhibit.

Municipal land use

Municipal land use request 001:

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.

PACE confirms that the Project complies with the applicable municipal planning documents.

As shown on the map below, the Project will be in an area zoned as Urban Reserve and C-2 General Business. Under the Town of Hanna's *Land Use Bylaw*, solar energy collection systems are allowed discretionary land use within areas zoned as Urban Reserve*s. 25 (25.2) pg. 77.*

See the uploaded document:

Town of Hanna - Land-Use Bylaw
Click on the page icon to access the exhibit.

Under C-2 General Business, Renewable Energy Systems Freestanding is a Permitted Use, providing they meet the height and setback regulations for an Accessory Building within the applicable Land Use District*s. 10(10.13.2) pg 42.*

PACE engaged with Special Areas 2 and discussed the proposed development in relation to any Area Structure Plans and Land Use Orders. A web-based search and a discussion with Special Areas Two revealed no Area Structure Plans apply to the Town of Hanna, but a Land Use Order has been drafted and is awaiting Ministry approval. The Airport Vicinity Overlay District falls under the jurisdiction of Special Areas 2 Land Use Order.[1][2]

Section 3.6 pp 33 notes that "Transport Canada / NAV Canada maintains the federal jurisdiction for all airport/airstrip-related development. Where a development is proposed within 1000m (3280ft) of the boundary of a known and recognized airport, aerodrome, or airstrip, the Development Authority shall refer the proposal to Transport

[1] https://sh6e03.p3cdn1.secureserver.net/wp-content/uploads/2024/01/SAB-LUO-January23_2024-First-Reading.pdf
[2] https://sh6e03.p3cdn1.secureserver.net/wp-content/uploads/2022/01/MSL007-15-Sched-C-Land-Use-Order_reduced.pdf

Canada / NAV Canada for an opinion. If in the opinion of Transport Canada / NAV Canada, the proposed development would conflict with flight operations, the Development Authority may refuse the application or may require the application be amended or conditions imposed on the Development Permit to reduce the conflict. The project has received the approval of both Transport Canada and NAV Canada."

Section 4.11.1 pp 72 states, "The purpose of this overlay district is to provide regulations and standards in addition to the underlying land use district with specific requirements for airport operations and development in the vicinity of airports on the lands described below for the following purposes: (a) to define the airspace around airports to be maintained free from obstacles to minimize the dangers presented by obstacles to an aircraft, and (b) to prevent the airport from becoming unusable from development of obstacles around the airport. (c) to minimize the impact of aircraft noise on the health, safety, and environment of the communities within and/or around the higher noise contour areas of the airport."

Permitted uses for the Airport Vicinity Overlay include all developments that have received provincial and/or federal approval.

See pp. 4.11.2 & 4.11.3 pp 72 of the uploaded document:

Special Areas 2 – Land Use Order
Click on the page icon to access the exhibit.

Municipal land use request 002:

Identify any instances where the proposed power plant 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.

Municipal land use request 003:

Describe how the applicant engaged with potentially affected municipalities before applying to modify the proposed power plant or mitigate any potential adverse impacts on the municipality.

PACE engaged the Town of Hanna CAO and Council on multiple occasions, with the first delegation occurring on January 25, 2023, before the launch of the PIP. At the initial delegation, PACE provided the Council with the project details and answered their questions and concerns. At the time, the Council appeared to support the proposed development. Additional engagements with the Town of Hanna Council occurred on July 26, 2023, and December 12, 2023.

PACE also engaged Staff from Special Areas 2 since they have jurisdiction over the Airport Vicinity.

For more details on PACE's engagement with the affected municipality, see the uploaded documents:

Harvest Sky – PIP Report
Click on the page icon to access the exhibit.

Harvest Sky - Council Presentation January 13, 2023
Click on the page icon to view the project website.

Harvest Sky - Council Presentation December 12, 2023
Click on the page icon to view the project website.

Harvest Sky - Council Presentation July 26, 2023
Click on the page icon to view the project website.

Viewscapes

Viewscapes requirement 001:

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 the project's impacts on these viewscapes.

An environmental scan of provincial and national parks and points of historical or cultural significance produced the following results:

An environmental scan of provincial and national parks, and points of historical or cultural significance produced the following results:

Elk Island National Park - 267 km
Midland Provincial Park - 80.9 km
Hanna Pioneer Museum & Village - 3 km
Hanna Roundhouse Society - 3.4 km

Reclamation Security

The Government of Alberta will develop and implement the necessary policy and legislative tools to ensure developers are responsible for reclamation costs via bond or security. Environment and Protected Areas will determine appropriate security amounts and timing in consultation with Affordability and Utilities. The reclamation costs will be provided directly to the Government of Alberta or could be negotiated with landowners as long as sufficient evidence is provided to the AUC. The new requirements will apply to all approvals issued on or after March 1, 2024.

Reclamation security request 001:

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

The site will be reclaimed to the standard required by AEP, the Municipality and any other applicable permit or approval conditions. Moreover, as detailed in the **Harvest Sky Reclamation Report** pp. 5 “the Developer has committed to commencing decommissioning activities within 12 months of the lease term expiry. All Project equipment will be removed to a depth of 36 inches below ground level. Project lands will be restored to conditions similar to pre-project conditions. If the landowner requests, gravel roads will be removed, and terrain will be smoothed to reasonable conditions.”

See pp. 5 of the uploaded document:

Harvest Sky - Reclamation Report
Click on page icon to access the exhibit.

Reclamation security request 002:

How the amount of the reclamation security will be calculated.

For details on how the reclamation security will be calculated, see pp. 3 of the uploaded document:

Harvest Sky - Reclamation Report

Click on the page icon to access the exhibit.

Reclamation security request 003:

The frequency with which the reclamation security amount will be updated or reassessed.

SUNSET Renewable Asset Management Inc. recommends re-evaluating the processes and economics for this Project upon commissioning as well as throughout its lifespan at intervals of 5 years up to the 20th year and then every year after that, leading into decommissioning & reclamation to ensure decommissioning funding is in alignment with current industry costs and processes align with current industry standards.

SUNSET anticipates the costs of recycling to go down over time as they continue to develop the first Alberta-based solar recycling facility through:

● Advancement of technology, including onsite recycling using mobile-based processes, which is currently in development.

● Downstream revenue streams from key base components, such as the pelletizing of the materials to create a new local supply chain for aluminum and the resale of other base components.

Costs are expected to go down as technology develops, as these sites are designed for a 30-year or longer life Cycle. SUNSET is currently developing on-site recycling techniques as part of a hub-and-spoke model, which will reduce recycling costs. Processing on-site, where possible, will reduce the carbon footprint associated with transportation by over 600% and significantly improve the economics of reclamation.

PACE is committed to funding 50% of the reclamation costs through a letter of credit by the 6th year as per the terms of the lease and 100% by the 8th year. PACE is presuming the term ‘estimated salvage value’ that corresponds to the ‘Typical’ reclamation costs as per Section 10 of the Third-Party Reclamation Costs and not the revenue portion, PACE is committed to funding as per the lease agreement and corresponding Letter of Credit:

- The third-party reports ‘Typical’ salvage value is $39.5/kWp
- 50% of the ‘Typical’ salvage value is $19.75 / kWp or 19,750 per MWp.

- On the fifth anniversary of the Initial Letter of Credit being issued, the aggregate amount of $17,100 per MW, the project's nameplate is 43.3% of the reclamation costs.
- On the sixth anniversary of the Initial Letter of Credit being issued, the aggregate amount of $25,400 per MW nameplate of the project was issued, which is 64.3% of the reclamation costs.
- On the eighth anniversary of the Initial Letter of Credit being issued, the aggregate amount is $50,000 per MW nameplate of the project, which is 126.5% of the reclamation costs.

See the uploaded document:

PACE Reclamation Security
Click on page icon to access the exhibit.

See pp. 5 of the uploaded document:

Harvest Sky—Reclamation Report
Click on page icon to access the exhibit.

Reclamation security request 004:

When the reclamation security is in place, it will be drawn upon, if needed.

For a detailed view of the financial modelling developed by PACE to support the reclamation security.

See the uploaded documents:

PACE Decommissioning Finance Structure

Click on the page icon to access the exhibit.

RBC Letter of Credit

Click on the page icon to access the exhibit.

Reclamation security request 005:

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

The reclamation security will be a letter of credit.

See the uploaded document:

RBC Letter of Credit

Click on the page icon to access the exhibit.

Reclamation security request 006:

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

The Letter of Credit states, “in the event of default, the beneficiary (Landowner) can demand the LC by providing a written demand request to RBC. The standard wording in our basic LC state as follows: “The LC may be drawn on by you at any time and from time to time, upon written demand for payment made upon us by you, which demand we shall honor without enquiring whether you have a right as between yourself and our said customer to make such demand and without recognizing any claim of our said customer, or objection by it to payment by us”. With this said, standard wording may be customized to specific demand requirements which would be followed by RBC in such a default event.

See the uploaded document:

RBC Letter of Credit
Click on the page icon to access the exhibit.

PACE Reclamation Security
Click on the page icon to access the exhibit.

Reclamation security request 007:

How the beneficiary can access the security and any constraints on such access?

The RBC Letter of Credit states, “The Letter of Credit may be drawn on by you at any time and from time to time, upon written demand for payment made upon us by you, which demand we shall honour without enquiring whether you have a right as between yourself and our said customer to make such demand and without recognizing any claim of our said customer, or objection by it to payment by us. With this said, standard wording may be customized to specific demand requirements which would be followed by RBC in such a default event.”

See the uploaded documents:

RBC Letter of Credit
Click on the page icon to access the exhibit.

PACE Reclamation Security
Click on the page icon to access the exhibit.