

**ALBERTA UTILITIES COMMISSION**

**Consultation regarding Rule 007:**

***Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines***

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**SUBMISSION FROM PACE CANADA DEVELOPMENT LP**

September 3, 2024

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## I. INTRODUCTION AND OVERVIEW

1. In May of 2024, the Alberta Utilities Commission (the “**Commission**” or “**AUC**”) announced that it would be conducting a review of AUC Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines* (“**Rule 007**”), and that the Commission is initiating a series of consultations on specific topics (the “**Rule 007 Review**”).
2. PACE Canada Development LP (“**PACE**”) herein provides its comments.

## II. BACKGROUND

3. PACE is a Calgary-based renewable energy developer, owner, and operator. PACE, together with its parent company Pathfinder Clean Energy UK, are currently developing over 4.2 GW of renewable energy generation in Alberta, and other jurisdictions around the world.
4. In Alberta:
  - a) PACE has 53 MW of solar generation operating on three projects;
  - b) PACE also has 1.9 GW generation applications in the Alberta Electric System Operator (“**AESO**”) queue, and 1.1 GW of Battery Energy Storage System (“**BESS**”) applications posted to Cluster 1 at the AESO;
  - c) the AUC has approved the 13.1 MW solar generation Hanna Sheerness project on the former site of the Sheerness coal mine;
  - d) PACE will be breaking ground next year on three more projects totaling 124 MW subject to approval by the AUC; and
  - e) PACE has three pending applications in process before the AUC.
5. Currently, PACE is actively developing 14 solar projects, with the majority being built near urban populations. Changes to *Rule 007* will therefore directly affect not only PACE, but also the public engaged through Participant Involvement Program(s) (“**PIP(s)**”). Careful consideration of the impact of changes to *Rule 007* to in-flight PIPs and applications should therefore be given.

### A. The Module A Report and Policy Directions

6. The purpose of the Rule 007 Review is to address the following policy objectives:<sup>1</sup>
  - a) **Viewscapes:** Existing visual impact assessment methodology must be enhanced to accommodate:<sup>2</sup>

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<sup>1</sup> Letter from Minister of Affordability and Utilities, Nathan Neudorf to AUC re Policy Guidance to the Alberta Utilities Commission (28 February 2024) (“**Policy Letter**”).

<sup>2</sup> Policy Letter, PDF pp 2-3.

- i) Government of Alberta (“**GoA**”) policy and legislative tools establishing buffer zones, of a minimum of 35 km, around protected areas or other “pristine viewsapes” where new wind projects will no longer be permitted;
  - ii) a visual impact assessment requirement for other developments proposed to be located within that 35 km zone; and
  - iii) the establishment of a more structured visual impact assessment methodology within the AUC application review process.
- b) **Setbacks:** the AUC must consider appropriate setbacks of renewable infrastructure from neighbouring residences and other important infrastructure.<sup>3</sup>
- c) **Reclamation Funding:** The AUC must review requirements regarding proponent commitments in relation to reclamation and security funding obligations, and the requirements must allow for:<sup>4</sup>
- i) GoA policy and legislative tools that ensures developers are responsible for reclamation costs via bond or other security, with appropriate security amounts and timing to be determined by Alberta Environment and Protected Areas (“**AEPA**”) in consultation with the Ministry of Affordability and Utilities; and
  - ii) the reclamation costs to be provided directly to the GoA or landowners, provided that sufficient evidence regarding the adequacy of the security is included in an application for approval by the AUC.
- d) **Agriculture:** the AUC must explore requirements for proponents to provide soil field verification earlier in the power plant application process, and the implementation of GoA policy and legislative tools that require:<sup>5</sup>
- i) the AUC to take an “Agriculture First” approach by evaluating the best use of agricultural lands proposed for renewables development;
  - ii) the AUC to disallow renewable generation developments on Class 1 and 2 lands, unless a proponent can demonstrate the ability for both crops and/or livestock and renewable generation to co-exist; and
  - iii) that Alberta's native grasslands, irrigable lands and productive lands continue to be available for agricultural production, especially in situations where renewable generation is proposed.<sup>6</sup>
- e) **Site Visits:** the AUC must develop rules for mandatory site visits for proposed renewable generation projects.<sup>7</sup>

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<sup>3</sup> Policy Letter, PDF p 2.

<sup>4</sup> Policy Letter, PDF pp 2-3. The new requirements will apply to all approvals issued on or after March 1, 2024.

<sup>5</sup> Policy Letter, PDF pp 2-3.

<sup>6</sup> Policy Letter, PDF p 3.

<sup>7</sup> Policy Letter, PDF p 2.

7. In addition to the policy considerations, the review (and the consequent amendments to *Rule 007*) must address the Commission's findings and undertakings in its Module A Report:<sup>8</sup>
- a) **Viewscapes:** a more structured visual impact methodology must be established, bearing in mind that:<sup>9</sup>
    - i) there is no universal definition of a pristine viewscape; and
    - ii) impacts to viewscapes can be experienced at the general public level, the community level, and the individual level.
  - b) **Land Use:**<sup>10</sup>
    - i) the existing regulatory framework is sufficient for the protection of environmental land; and
    - ii) municipalities want to protect agricultural land and minimize land fragmentation.
  - c) **Agricultural Land:**<sup>11</sup>
    - i) the AUC will explore requirements for proponents to provide soil field verification earlier in the application process;
    - ii) there are a number of agricultural and environmental mapping tools that exist to assist proponents with siting of power plants in Alberta;
    - iii) there is no consensus about which land constitutes "prime agricultural land;"
    - iv) power plant development has not historically been a primary driver of agricultural land loss in Alberta;
    - v) market forces have favoured non-prime agricultural land for renewable projects, resulting in about four per cent of renewable projects locating on class 2 land as of October 2022;
    - vi) based on the AESO high renewable net-zero scenario, and assuming all renewable development locates on class 2 land, the percentage of agricultural class 2 land loss is estimated to be less than one per cent by 2041; and

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<sup>8</sup> AUC inquiry into the ongoing economic, orderly, and efficient development of electricity generation in Alberta Module A Report (31 January 2024) ("**Module A Report**").

<sup>9</sup> Module A Report, PDF p 7.

<sup>10</sup> Module A Report, PDF p 5.

<sup>11</sup> Module A Report, PDF p 5.

- vii) Agrivoltaic programs are an established practice around the world but is an emerging practice in Alberta to help mitigate agricultural impacts from projects on the land, but they would benefit from further study.
- d) **Reclamation Security:**<sup>12</sup>
- i) the AUC will review *Rule 007* requirements regarding proponent commitments in relation to reclamation and security funding obligations;
  - ii) existing power plant reclamation requirements are sufficiently defined to ensure effective reclamation, but no timing trigger exists to initiate reclamation;
  - iii) effective construction practices to reduce land disturbance, particularly soil impacts to agricultural lands, could be better defined;
  - iv) there is no reclamation security regime that applies to all power plants;
  - v) the reclamation risk profile for renewable power plants is lower than other industries' reclamation risks as there is no fuel depletion risk and a lower contamination risk;
  - vi) there were mixed views of whether a mandatory reclamation security regime for power plants should be implemented; and
  - vii) parties had a range of recommendations for an acceptable reclamation security regime, with proponents proposing the least stringent requirements and landowners proposing the most stringent requirements.
- e) **The Role of Municipal Governments:**<sup>13</sup>
- i) municipal participation rights will be automatically granted, and municipalities will be eligible to request cost recovery for participation;
  - ii) the Commission will undertake a review of *Rule 007* related to municipal submission requirements and clarify consultation requirements;
  - iii) Municipal participation in AUC proceedings has been increasing;
  - iv) Municipalities want changes to how the AUC considers land-use planning and other municipal issues in AUC proceedings; and
  - v) With AUC enhancements to its process, changes to Section 619 of the Municipal Government Act are not necessary.

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<sup>12</sup> Module A Report, PDF pp 6-7.

<sup>13</sup> Module A Report, PDF pp 4-5.

## B. Regulatory Framework

8. Under s 76(1)(a) of the *Alberta Utilities Commission Act* (“**AUCA**”),<sup>14</sup> the AUC may make rules governing the procedures and processes applicable to locating, constructing, and operating facilities or infrastructure over which the Commission has jurisdiction.
9. Some of the purposes of the *Electric Utilities Act* (“**EUA**”),<sup>15</sup> include:<sup>16</sup>
  - a) to provide for rules so that an efficient electricity market based on fair and open competition can develop in which neither the market nor the structure of the Alberta electric industry is distorted by unfair advantages of government-owned participants or any other participant;
  - b) to continue a flexible framework so that decisions of the electric industry about the need for and investment in generation of electricity are guided by competitive market forces;
  - c) to enable customers to choose from a range of services in the Alberta electric industry developed by a competitive electricity market, and to receive satisfactory service; and
  - d) to provide for a framework so that the Alberta electric industry can, where necessary, be effectively regulated in a manner that minimizes the cost of regulation and provides incentives for efficiency.
10. Under s. 3(1)(d) of the *Hydro and Electric Energy Act* (“**HEEA**”),<sup>17</sup> the AUC must, when considering an application for the construction or operation of a generating unit, as defined in the *EUA*, have regard to the purposes of the *EUA*.
11. Rules made under s. 76(1)(a) of the *AUCA*, regarding matters which are under the jurisdiction of the Commission, such as approval to construct and operate a generating unit,<sup>18</sup> may therefore not be contrary to the purposes of the *EUA*.
12. In other words, the implementation of GoA policy objectives and the undertakings made by the AUC in the Module A report, must result in changes to *Rule 007* which do not negate the purposes of the *EUA*.

## III. SUBMISSIONS

### A. Methodology for Visual Impact Assessments

13. Green Cat Renewables (“**GCR**”) prepared an expert report regarding the methodology for visual impact assessments.

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<sup>14</sup> SA 2007, c A-37.2.

<sup>15</sup> SA 2003, c E-5.1.

<sup>16</sup> *EUA*, s 5.

<sup>17</sup> RSA 2000, c H-16.

<sup>18</sup> *HEEA*, s 11.

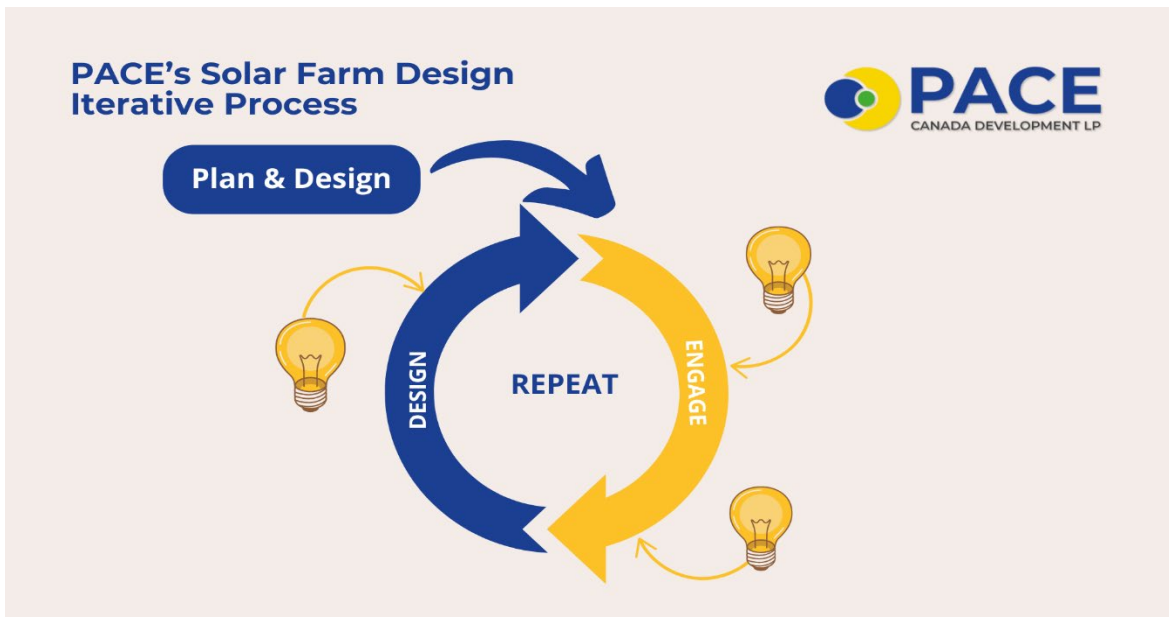
14. PACE supports the recommendations made by GCR.
- B. Appropriate Value for Field of View in Glare Assessment for Solar Power Plant Applications**
15. GCR addresses the appropriate value for field of view in glare assessment for solar power plant applications in its expert report.
16. PACE supports the recommendations made by GCR.
- C. Setbacks for Renewable Energy Facilities**
17. The following rules and policies determine setback requirements from surrounding residences:
  - a) Municipal Land Use Bylaws;
  - b) Municipal Development Plan;
  - c) Alberta Transportation (if applicable);
  - d) Rule 012: *Noise Control* (as defined by project-specific Noise Impact Assessments); and
  - e) AEPA guidance on preference to use Urban sites already disturbed rather than agricultural or other non disturbed lands.
18. Municipal bylaws regarding setbacks are informed by experts within various agencies as well as expert consultants, who perform various planning and natural values studies. It is not necessary to prescribe setbacks to these experts. Below are some examples:
  - a) existing setbacks normally used in Bylaws for sideyards are ample when augmented by the results of a Noise Impact Assessment;
  - b) setbacks for visual impact are considered in the viewshed discussion and increasing setbacks to allow for tree belts or zones of natural regeneration are also considered there;
  - c) setbacks from main thoroughfares and highways are dictated by Rural Municipalities, Municipalities and Alberta Highways;
  - d) setbacks from Aerodromes and airports are considered by NavCanada based on actual glint glare analysis;
  - e) Glint Glare analysis inform setbacks and orientation onsite; and
  - f) setbacks from water bodies and rare and endangered species habitat are covered with the Environmental Protection and Enhancement Act<sup>19</sup> (“EPEA”) and AEPA expert guidance.

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<sup>19</sup> RSA 2000, c E-12.



19. Setbacks should be based on scientific and engineering rigour to avoid the “subjective” treatment of the surface co-use by solar developers and avoid random setbacks based on public opinion and anti-renewable sentiment.
20. Beyond the conditions embedded within existing regulatory and or planning policies, PACE recommends that any additional setback requirements be resolved to the best of the developer's ability through the stakeholder engagement process. For example, below is the process PACE engages in:
  - a) When PACE engages communities with a utility-scale solar farm development, a preliminary layout of the solar array, inverters and interconnection point is shared with stakeholders for their information and feedback.
  - b) PACE then engage stakeholders in an **iterative** process that can result in multiple design changes throughout the consultative process, i.e. increased setbacks and, in some instances, removal of developable areas that are highly contestable.
  - c) When residential homes are near a proposed development, extensive landscaping plans may be developed as mitigation, and landscape architectural renderings can be created and shared with stakeholders, so they have a close-to-life visual representation of their view once the solar farm is constructed, and the landscaping is completed.



**Figure 1** PACE Iterative Consultation Process

21. Establishing further municipal setbacks in proximity to residential areas can have the effect of sterilizing potential developments in a rural-urban setting and create a loss of property tax revenue alongside the environmental and social benefits of the project both locally and globally.
22. One of the prime motivations for a developer is the effective low-cost use of existing capacity on the distribution or transmission facilities. In this case, the location chosen

would optimize the carrying capacity of the Alberta Interconnected Electric System (“AIES”) as built and already in the rate base. Rural urban-based projects take advantage of these low-cost opportunities in the distribution system particularly, a limited, finite capacity that reduces costs to ratepayers and helps Alberta meet its increasing energy needs while reducing greenhouse gas emissions.

23. It has been suggested that all solar developments face the risk of thermal runaway failures.<sup>20</sup> This is not factually correct. Lithium technology may face this risk, but Iron Flow and Graphene technologies do not. This is but one example why additional set back requirements, devoid of project-specific information, is not in the public interest. This issue is best dealt with on a municipal level.
24. Further mandatory setbacks on solar projects will have to effect that the AUC prescribe to municipalities what setbacks should be – disregarding municipalities’ expertise and disallowing project-specific considerations. This is not in the public interest and increases the cumulative impacts of having to build new and longer interties to move developments away from the chosen site and further from the wires capacity.

#### **D. Recommendations for Personal Notification Requirements**

25. On June 19, 2024, the Commission sent out correspondence to a group of industry representatives, requesting that they collectively develop one or more recommendations for personal notification requirements within a Participant Involvement Program (“PIP”), and file same together with other submissions in the Rule 007 Review. The recommendations are to address difficulties developers have faced in complying with the personal notification requirements under the current version of *Rule 007*.
26. Although PACE is not part of a collective response, as a sustainable and responsible developer committed to meaningful and inclusive stakeholder engagement, PACE would like to take this opportunity to offer a detailed description of the challenges it has faced with stakeholder notification, and offer its recommendation on how these challenges can best be resolved, while still satisfying the purpose of PIPs under *Rule 007*.

##### **(i) Challenges**

<b>Issue</b>	<b>Description</b>
Outdated information on land titles	PACE relies on land titles obtained from Altalis Enhanced Title Mapping and SPIN II to gather mailing addresses for landowners within 800 metres of its proposed projects. Unfortunately, it is not uncommon for this information to be out of date.
Landlines as an outdated mode of communication	When PACE receives returned stakeholder notification mail, it conducts a telephone number search to contact the

<sup>20</sup> Mark Wright Recommendation on Setbacks (Redacted) (11 June 2024). Online (PDF): [https://media.auc.ab.ca/prd-consultation/sites/2/2024/05/Mark-Wight-Recommendation-on-Setbacks\\_Redacted.pdf](https://media.auc.ab.ca/prd-consultation/sites/2/2024/05/Mark-Wight-Recommendation-on-Setbacks_Redacted.pdf), PDF pp 2-5.

Issue	Description
	<p>landowner and obtain an accurate mailing address or email. This method often proves to be unsuccessful.</p> <p>According to the Communications Radio-Television and Telecommunication Commission Communications Monitoring Reports (2018 &amp; 2019), 63% of Canadians used landlines in 2019 and 67% in 2018.</p> <p>Telephone subscribers declined 5.7% between 2016 and 2017 and 7.1% between 2015 and 2016. If we were to project those declines into 2024 using conservative projections, we could anticipate that the current percentage of telephone subscribers will be approximately half the Canadian population in 2024. In most cases searching phone books or online resources for contact information does not yield valid contact information.</p> <p>Since <i>Rule 007</i> is being reviewed for current practices, it should be noted that access to contact information has declined as have phone land lines.</p> <p>The <i>Freedom of Information and Protection of Privacy Act</i>,<sup>21</sup> while serving an important societal function, has resulted in access to information of affected parties being significantly restricted since <i>Rule 007</i> was put in place.</p>
Social media engagement	<p>If PACE is unsuccessful in contacting a stakeholder by telephone, we attempt to engage them via social media when there is a first and last name match within the community of residence noted on the land title. PACE has sent at least 150 messages via social media and has yet to receive one response. These messages are often perceived as SPAM and disregarded.</p>
No mailboxes in rural communities	<p>To date, all of PACE's projects have been in rural communities where postal services are based on postal box outlets. PO Box information and most often not available in the land title search. PACE cannot deliver stakeholder notifications to residences since there is no place to insert the mail. For this method to be successful, the occupant would have to answer the door and provide their PO box information to PACE staff. PACE has endeavored to insert mail between doors and railings, but this still does not address our need for accurate mailing addresses to communicate to the AUC under the requirements of <i>Rule 007</i>.</p>
Residents' resistance to disclosing P.O. Boxes	<p>When personal contact is made at the door, PACE has encountered resistance from occupants who decline to offer</p>

<sup>21</sup> RSA 2000, c F-25.

Issue	Description
	their P.O. Box for AUC future use and for PACE to update the Stakeholder with evolving development details.
Occupants who are not property owners	When personal contact is successful, the occupant may not be the landowner, which leaves the developer facing the same issue regarding stakeholder notification for landowners and inaccurate mailing lists for the AUC.

**(ii) Recommendations**

27. Given the challenges developers face with stakeholder notification, PACE recommends that the requirements of the PIP as it pertains to stakeholder notification be considered satisfied when using a two-fold mailing approach:
  - a) Canada Post Direct Mail Outs using land title information; and
  - b) Canada Post Precision Targeting.
28. Canada Post offers a Precision Targeting Tool that allows the sender to use an interactive map to target specific routes, neighbourhoods, or an entire region. This tool is beneficial as it ensures that all occupants within the stakeholder notification zone, including those with P.O. boxes, receive the notification. These mailing lists can be saved and shared with the Commission.
29. PACE acknowledges that this approach still leaves a marginal gap in the stakeholder notification process. For example, the landowner mailing information on the land title may be outdated or incorrect, and the landowner may not reside at the property within the stakeholder notification zone. Despite this small but apparent risk, PACE believes combining a direct mailout based on land titles with a mailout based on the Precision Targeting tool offers the most robust stakeholder notification method one can employ, given the current range of tools and the inherent limitations of notification in a postmodern world.
30. Moreover, when this mailout approach is combined with a comprehensive set of other engagement activities that include newspaper ads, press releases, neighbourhood postcard mailouts, local government social media postings (community billboards), a project specific website, and multiple in person and virtual public consultations, PACE believes that this approach should satisfy the requirements of *Rule 007*. The developer should not be penalised for gaps or deficiencies in stakeholder notification and attempts to personally consult with stakeholders within 400 metres. To do so is punitive to the developer and a disservice to the efforts they have put forth to engage the community.

**E. Power Plant Applications**

**(i) Approval Renewal Requirements and Time Limits**

31. The renewal process already considers the impacts to the market participant, AESO, and AEPA, and as such recognizes those most impacted by a change in the in-service date. Projects moving past their AESO Cluster Study window should file an impact study. If no

impacts are identified by the AESO, upon review of the impact study, the project should be deemed to meet renewal requirements.

**(ii) Approval Transfers**

32. The current process is sufficiently robust to meet developers' and stakeholders' needs.

**(iii) Agricultural Land**

Land Classification:

33. The GoA has indicated to the Commission that it intends to enact legislative tools to enforce its policy decision to disallow renewable generation developments on Class 1 and 2 lands unless a proponent can demonstrate the ability for both crops and/or livestock and renewable generation to co-exist.
34. PACE believes the Natural Resource Management Branch's recommendation to protect lands beyond Class 1 and 2 when a municipality or county has no lands that fall within the top-tier classifications is reasonable.
35. PACE is of the view that use of the land classification system should be considered as a very preliminary step and part of overall planning for the project.
36. Of note, PACE has concerns regarding the information collected because no repository of pre-disturbance soil assessment ("PDSA") samples and data exists. Without a chain of custody on information, especially in the case of an ownership transfer, valuable information may be missing at the time of reclamation .
37. The Commission should consider requiring all solar and wind developments to integrate an agrivoltaics plan into their projects regardless of land classification. As a pioneer in agrivoltaics before the moratorium, PACE's progressive and sustainable approach to development helps our province and country address three of its most critical resource needs: food, energy, and water. PACE believes this should be a standard best practice for all renewable energy developments on lands with a history of agricultural activity.
38. 39. PACE maintains that this is a starting point to an agricultural farm plan developed for an Agrivoltaics site, which looks at all available crop rotations limited by land quality, (terrain and soil composition). The AUC recommendation that a PAg be responsible for the Farm Plan development on viable lands would cover off most of the concerns around crop production, viability of active (cropping) or passive (grazing) options.

Soil Verification:

39. PACE does not object to the proposal that project proponents provide soil field verification earlier in the application process. PACE does however submit that the soil field verification process should be led by an expert (someone with a PAg qualification).
40. Further, while there may be additional cost, the benefit outweighs the cost consideration in PACE's view. It should however be borne in mind that soil samples need to be taken from late April to September, and as such this may create a bottleneck in applications.

### Unjust Discrimination against Renewables:

41. In 2021, Alberta had 49.2 million acres of agricultural land. According to the University of Western Ontario and the University of Calgary School of Public Policy, to achieve a net zero electrical grid in Alberta, we need to use between 0.5 and 0.8% of Alberta's agricultural lands to achieve this target. While renewable energy is being held responsible for cannibalizing Alberta's agricultural lands, most prime agricultural lands, not to mention 80% of prairie grasslands, have been lost due to urban development, suburban rural sprawl and oil and gas developments.
42. It is not clear why renewables are being singled out as a threat to agriculture and the environment.

### Options:

43. The AUC listed several options for addressing concerns regarding agricultural land in the Module A Report.<sup>22</sup>
44. PACE supports the option that proposes not to place restrictions on use of any agricultural land classes and instead rely on the enhancement of AUC processes, including increased municipal government involvement and focus on agricultural land preservation. If paired with a properly developed agrivoltaics plan, proceeding on this basis would not run contrary to the GoA policy directions.

#### **(iv) Native Grasslands**

45. Native grasslands are defined as areas where native grassland species make up 30% or more of the foliar coverage. Any quarter section that has 30% or more in native grasslands are directed to be avoided or removed from project siting.
46. There is a strong body of evidence that supports how solar farms can increase ecosystem services (carbon storage, pollinator supply, sediment retention and water retention) to a level pre-solar and agriculture when sustainable maintenance practices are applied. As pressures intensify for energy and food production, we need solutions that maximize mutual benefits of ecosystems. Microclimate conditions created by solar PV arrays can improve performance of native grasslands which increases ground biomass and related carbon sequestration. Native grasses and forbes typically have longer root systems which create the potential for improved soil stabilization and reduced water run-off.
47. Rather than removing siting opportunities based on 30% of the lands being composed by native grassland coverage, PACE suggests that the AUC and AEPA create opportunities to work with progressive sustainable developers to increase these percentages beyond 30%.
48. Alternatively, why not incentivize developers to take Class 3, 4 and 5 agricultural lands and restore Alberta's depleting stock of native grasslands which have seen over an 80% decline due to agriculture, urban development, and rural suburban development?

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<sup>22</sup> Module A Report, PDF pp 5-6.

49. Sustainable solar developers should be incentivized for playing a role in native grassland restoration. Progressive policy adaptation should include market mechanisms that encourage sustainable land use practices. Many states have passed legislation and scorecards to guide the implementation of native vegetative habitat standards. Alberta would be wise to take note and follow suit.

**(v) Reclamation Security**

Methodology for Setting Amount of Security:

50. PACE worked with industry leader Sunset Renewables to meet the interim requirements of providing a third-party report regarding reclamation costs.
51. PACE proposes that, at minimum, the methodology informing the reclamation reports should break down the site into its components for recycling, reuse, or landfill disposal. Key considerations should include:
- a) **Project Size and Scope:** Cost estimates are based on the size of the project and involve assumptions on labor, equipment, and transportation, all using current rates. The methodology accounts for various aspects such as electrical shutdown, hardware removal, module reuse/recycling, and deconstruction of racking, fencing, and foundations.
  - b) **Recycling and Reuse:** The report emphasizes maximizing recycling and reuse of materials, including solar modules and metal components, to contribute to a circular economy. Approximately 80% of modules are expected to be reused, with the remaining 20% recycled. Metal components like racking and fencing are taken to local recyclers.
  - c) **Assumptions and Risks:** The methodology incorporates detailed assumptions for each reclamation activity, such as time required per module and transport logistics. Risks such as weather delays, hardware corrosion, and potential changes in design due to geological data are acknowledged.
  - d) **Sustainability Focus:** The overall approach aligns with sustainable land management principles, aiming to minimize landfill waste and return the land to its pre-project state. The report provides an indicative costing for the reclamation and highlights the need for ongoing re-evaluation throughout the project's lifecycle.
52. The methodology effectively estimates costs and processes by combining real-world experience, industry best practices, and current technological capabilities.

Lease Language and Decommission Obligations

53. A requirement that the AUC approve the provisions in surface leases, or making certain language related to reclamation, a condition of approval of the project (with a further reporting obligation, perhaps as part of a five-year update report on reclamation costs), would address concerns that security would not be set related to reclamation and/or would ultimately prove insufficient.

54. An example of such language may be as follows:

1. Within sixty (60) days following the substantial completion of the construction and installation of the System, the Lessee shall deliver to the Lessor one or more letters of credit (collectively, the “Letter of Credit”) to be held and dealt with by the Lessor in accordance with this clause XX as continuing collateral security for the performance by the Lessee of the Lessee’s Decommissioning Obligation.
2. Decommissioning costs shall be re-evaluated annually during the construction of the Project and once every five (5) years thereafter from the date of Commissioning to ensure sufficient funds for decommissioning. If the parties agree at that time that the decommissioning costs need to be modified, the amount of the Decommissioning Security shall be adjusted accordingly. Failure to secure such renewal or extension shall constitute a default of Lessee under this Agreement.
3. The Letter of Credit shall be an irrevocable standby letter of credit for a Project in the XXX Region of Alberta, and which shall:
  - In Years 1-4, set an initial amount of \$2,800 per MW nameplate of the project (the “Initial Letter of Credit”), subject to the increases provided for in clause XXX; Year 4 aggregate total per MW is \$11,500.00;
  - name the Lessor as beneficiary;
  - have an initial expiry date of not earlier than one (1) year from its issue date;
  - provide that the issuer thereof shall automatically renew and extend the Letter of Credit for further successive periods of one (1) year unless, at least thirty (30) days prior to any expiration thereof, the Lessor shall have been given notice in writing that such Letter of Credit shall not be extended and specifying the date on which it shall expire. If a substitute Letter of Credit has not been provided to the Lessor at least ten (10) days prior to such expiration, the Lessor may draw upon the Letter of Credit and shall hold the proceeds as security for the payment and performance of the Lessee’s Decommissioning Obligations;
  - be issued by a Canadian Schedule I Chartered Bank, ATB Financial or another lender satisfactory to Lessor, acting reasonably;
  - permit drawings thereunder (including partial drawings) on the presentation of sight drafts by the Lessor to the issuing bank at a branch located in Calgary, Alberta, accompanied by a certificate of the Lessor stating that it is a drawing under the Letter of Credit in accordance with the provisions of this Lease; and
  - be otherwise on terms and conditions satisfactory to the Lessor, acting reasonably;



4. Any further letter of credit or replacement letter of credit provided by the Lessor from time to time shall be deemed a Letter of Credit for the purposes of this clause and shall be held and dealt with by the Lessor as such.

5. The Lessee shall provide a further letter of credit or a letter of credit in replacement of a letter of credit held by the Lessor or an amendment to any such letter of credit such that the aggregate amount of the Letter of Credit held by the Lessor is as follows:

- on the fifth anniversary of the Initial Letter of Credit being issued, the aggregate amount of \$17,100.00 per MW nameplate of the project;
- on the sixth anniversary of the Initial Letter of Credit being issued the aggregate amount of \$25,400.00 per nameplate of the project and,
- on the seventh anniversary of the Initial Letter of Credit being issued the aggregate amount of \$33,700.00 per MW nameplate of the project; and
- on the eighth anniversary of the Initial Letter of Credit being issued the aggregate amount of \$50,000 per MW nameplate of the project;
- the LC for \$50,000 per nameplate will remain in effect for the remaining years of the term of lease as defined by Clause and for any extensions;
- The Lessee shall provide that the issuer thereof shall automatically renew and extend the Letter of Credit for further successive periods of one (1) year unless throughout the remaining term of the agreement, at least thirty (30) days prior to any expiration thereof, the Lessor shall have been given notice in writing that such Letter of Credit shall not be extended and specifying the date on which it shall expire. If a substitute Letter of Credit has not been provided to the Lessor at least ten (10) days prior to such expiration, the Lessor may draw upon the Letter of Credit and shall hold the proceeds as security for the payment and performance of the Lessee's Decommissioning Obligations.

6. The attributed salvage value of the equipment to be removed from the site to complete the decommissioning and restoration obligations will generate additional revenue to supplement the security.

7. Amounts deposited in the reserve account will bear interest. Such interest will remain in the reserve account till the amount is fully funded to \$50,000/MW.

8. If Lessee fails to perform Lessee's Decommissioning Obligation as required pursuant to subclause XXX above, upon no less than thirty (30) days prior written notice from Lessor to Lessee and Lessee's failure to provide reasonable assurance to Lessor within such thirty (30) day period that Lessee will perform and complete Lessee's Decommissioning Obligations within a reasonable time thereafter, Lessor may undertake the performance of Lessee's Decommissioning Obligation. Lessee shall pay to Lessor the costs and expenses incurred by Lessor in performing the Lessee's Decommissioning Obligations within ten (10) days following receipt from the Lessor of an invoice and such supporting documentation

which confirms the completion of the Lessee’s Decommissioning Obligations and the costs and expenses incurred by the Lessor as Lessee may reasonably request. Lessor may make drawings under the Letter of Credit and apply the proceeds thereof to or towards any amounts then due and payable by Lessee to Lessor as aforesaid and unpaid.

9. Upon the completion of the Lessee’s Decommissioning Obligations and the payment of any amounts owing to Lessor by Lessee pursuant to this clause XXX, Lessor shall return the Letter of Credit to Lessee together with a direction to the issuer of the Letter of Credit that the Letter of Credit is to be canceled.

Meeting Security Obligations:

55. Generating Unit Owner’s Contribution (“**GUOC**”) is paid upfront to the AESO as a significant financial obligation to connect a project to the AIES and is considered committed project capital or credit. As such, it is a financial consideration given as a capital expenditure required to successfully build, own, and operate the facility (CAPEX) or development cost, as opposed to an operational cost (OPEX).

56. The GUOC payment is returned to the owner over ten years, starting in Year 2, if generator behaviour and energy supply continue unimpeded and meet AESO expectations for the approved project. As GUOC security is capital already allotted to the Developer’s project, it can potentially be used as a cash or credit-backed security for decommissioning funding obligations.

57. Current GUOC rates per region in Alberta vary as follows:<sup>23</sup>

Planning Region	Current GUOC Rate
Northwest	\$10,000/MW
Northeast	\$30,000/MW
Edmonton	\$20,000/MW
Central	\$20,000/MW
Calgary	\$30,000/MW
South	\$50,000/MW

58. This decommissioning funding concept is Alberta-focused and is based on the AESO requirements without additional need for credit or cash by the Generator Facility Operator (GFO). Since most projects are financed with GUOC in place at Stage 3 of the AESO Stage gate system, this is an effective use of capital that should provide some comfort of attaching to monies held in Reserve or Trust.

<sup>23</sup> AESO GUOC Rates, online (September 3, 2024): <<https://www.aeso.ca/rules-standards-and-tariff/tariff/guoc-rates/>>.

59. This should provide a good basis for cash-backed security. The amount of security required, reviewed every five-years, may result in additional security being required. Given that GUOC is repaid over a ten-year period, the benefit of this would be that at the time additional cash or security requirements would realistically be required, the generating unit would be operational for at least five years, or more realistically, ten years.

PACE's Approach:

60. PACE has adopted Letters of Credit to support its decommissioning financial obligations for its utility-scale solar developments connecting to the AIES. PACE also utilizes already committed credit/capital recycled from the GUOC obligation. This addresses the security needs of the community, Landowner, and PACE.
61. The benefits of this approach may be summarized as follows:
- a) uses existing capital/credit available to the Developer through recycling already committed capital/credit;
  - b) it is separately controlled by default owner and landowner specifically for decommissioning;
  - c) can be transferred with a sale as an "asset" not requiring replacement if ownership changes; and
  - d) it covers the estimated cost based on an independent expert's cost estimate for decommissioning at the end of its useful life.
62. This approach does not require significant supervision of existing corporate credit rating by the AUC or other government agency as in the case of both Parental Guarantees and Bonding, both of which have been proven to be dysfunctional in Alberta in the Oil and Gas sector leading to decommissioning obligations being passed to the ratepayers and GoA (OWA).
63. It should be noted that whatever conditions or program that the GoA develops should be applied to all forms of energy development to avoid financially disadvantageous market conditions for renewable energy projects or creating a de facto subsidy in favour of fossil fuels or other renewable energy projects such as pumped hydro, CAES or biomass.
64. PACE does not support providing security directly to the GoA. Given that reclamation obligations will not fall to the GoA, but instead rest on the landowner, it would only create another layer of administration without concomitant benefit.

**(vi) Energy Storage Facilities**

65. PACE intends to co-locate BESS on its renewable energy generation sites. The use of BESS, particularly in support of system reliability is widely accepted, proven and in practice in many jurisdictions with the Western Electric Coordinating Council ("**WECC**").
66. The WECC promotes Bulk Electric System reliability for the entire Western Interconnection system of the Pacific Northwest.

67. WECC is the Regional Entity responsible for compliance monitoring and enforcement and is encouraging the development of BESS within its jurisdictions.
68. As such, the AUC should support and promote a percentage of BESS on each Renewable Energy project so that the AIES will be positively impacted by the growth of low-cost renewables in the AIES generation mix.
69. The AUC together with the AESO should support the development of positive rules and operation, as well as consider future grid ancillary service offerings for BESS. Doing so would reduce the congestion and curtailment of renewable energy facilities and destroying the growth opportunity presented in supplying affordable low-cost renewables, currently negatively impacted by punitive generation rejection schemes and emerging congestion because the current transmission and distribution system lacks transfer capability.

**(vii) Site Visits**

70. PACE submits that the AUC staff should make an effort to visit each municipality and get direct feedback from landowners, and the municipality as to the impact of the project. Understanding the location within the community can add value to consideration of stakeholders potentially acting as intervenors or forming community groups around opposition to a project and the validity of the SIPs filed.
71. Procedural fairness considerations would suggest that the project proponent observe the interaction between the municipality, landowner, and Commission. Note that the suggestion is not to interact with interveners, but with the municipality and landowner.

**F. Municipal-Focused Issues**

**(i) Procedural Rights**

72. PACE noted that the GoA supports the AUC's undertakings regarding municipalities' participation rights: Automatically granted standing, eligibility for cost recovery requests for participation, and a review of rules related to municipal submission requirements, all while clarifying consultation requirements.
73. PACE recommends that the AUC provide clarity regarding issues which fall within municipalities' exclusive purview, to avoid municipal participation simply to avoid losing the ability to determine these issues later.

**(ii) Recommendations regarding Municipal Engagement Form**

74. PACE reviewed the proposed municipal engagement form and provides the following recommendations:
  - a) the form should include whether an Area Structure Plan has been developed;
  - b) the form should include a section to note whether the project is in compliance with bylaws, or whether an amendment is in process within the Municipality;

- c) the form should include a section to note whether the municipality owns the land proposed for development, should this be the case, it should also be seen as municipal support for the development; and
- d) the form should include a section to note consultation with the Rural Municipalities such as the surrounding County, as often there are shared service agreements such as emergency response that may be impacted by the development.

**(iii) Land-Use**

75. Municipalities should be dissuaded from developing punitive setbacks to renewables that are not founded on the math and science approach that the AUC currently uses as the “expert” resource charged with permitting and licensing facilities. A solid and implemented, agrivoltaics program will suffice to support ongoing agricultural activities. Land use bylaws should treat renewables with the same rigor as other surface development activities. The AUC should work to advise municipalities on proper land use bylaws for issues unique to power plant approvals.

**(iv) Municipal Consultation**

76. In PACE’s experience, issues relate to setbacks, compliance with zoning and consultation by the Developer.
77. PACE’s experience before councils has been positive. After securing the site for development, often in consultation with Municipal Planners, PACE begins its PIP with a delegation for information to Municipal Council and senior staff. Municipal Staff receives a copy of the *Rule 007* compliant information packages mailed to those within the 800m radius of the project. The purpose of this is to provide staff with information, enabling a response to any questions they receive. Over the progress of the PIP, and usually a 6-month period, PACE conducts an iterative consultation that creates a positive feedback loop to the Municipality and other stakeholders within the community. A significant comment from municipalities were related to developers holding one Open House and then filing applications with the AUC a “done deal”. PACE’s process starts with the leasing landowner, moves to community leadership, and then provides stakeholders with numerous opportunities to participate in the PIP constructively.
78. Before filing it application, PACE again consults with the Municipal leadership and presents the findings of the PIP and shows how it influenced the AUC submission. The AUC filing number, and a notice is then sent to all participants in the PIP, and it is announced on the project webpage. This is a process that PACE believes should be the recommended practice for rural electricity developments.

**G. Interim Requirements**

79. PACE provides the following comments on the interim requirements:

Requirement	Comment
Using AGRASID, describe the agricultural capability of soils intersecting the project footprint as	The use of AGRASID is limited on soil potential, particularly when part of an agrivoltaics application. This was not the original purpose of

Requirement	Comment
provided in the seeded small grains attribute of the LSRS table, and provide a table showing the area of each LSRS class impacted by the project.	the database, and it is not granular enough to drive a farm plan.  It is a very rough tool that is but a starting point informing final real farming opportunities based on more detailed site soil samples, laboratory testing, and informed crop rotations developed by a PAg for the site.
From AGRASID, describe all soil series within the project area and report potential impacts to soil quality, quantity, and hydrology. Describe how these impacts will be mitigated during construction, operation, and reclamation.	ARISID does not have sufficient information to guide a geotech program or soil sample program for agriculture. In situ soil samples need to be taken to inform decisions such as pile programs for solar or inverted T foundations for Wind turbines.
Describe all earthworks planned for the project, including details on anchor structures, and stripping and grading of soils.	This is covered in the conservation and reclamation program that is a requirement for renewable energy projects in Alberta. As such, it is already part of the application process, required by AEPA.  A properly developed geotech program would identify any issues on the subsurface water table. The use of piles in Alberta for oil and gas infrastructure is well developed and provides the necessary guidance to inform renewable energy developers where existing impact from oil and gas on water tables is well understood.  Again, the expert authority is the foundation design engineer engaged on a geotech program to provide necessary feedback on impacts of construction on sub-surface drainage and water tables.
Describe the potential for co-locating agricultural activities into the project design.	The AUC has engaged with Tannas Conservation Services Ltd. to develop recommendations for developing agrivoltaics programs for project impacting Class 1, 2 lands. PACE supports these recommendations, and the key recommendation is engaging a PAg to guide the agricultural activities undertaken during the tenure of the renewable energy facility surface
List the qualifications of the agrologist(s) who prepared or reviewed the responses regarding agricultural land.	The AUC has engaged with Tannas Conservation Services Ltd. to develop recommendations for developing agrivoltaics programs for project impacting Class 1, 2 lands.

Requirement	Comment
	PACE supports these recommendations. The qualifications of any expert is relevant to the opinion they express.

#### IV. CONCLUSION

80. While PACE sees the need to address the changing environment around power project approvals, it needs to be consistent with what other forms of energy are asked to do. Does a gas plant need to reflect impact on agriculture? Does a gas-powered generation facility or compressed air facility need to review surface impact? The AUC needs to review its mandate to providing oversight through *Rule 007* to the industry.
81. The AUC has the opportunity to provide guidance to developers and stakeholders such as Municipal government, but it needs to temper this with the fact that it has relied on experts providing project specific recommendations based on mathematical and scientific research and not conjecture or GoA sentiment towards renewables.
82. Generally, PACE supports these AUC bulletins and suggested new information requests.