General Comments on AUC Rule 007 – Round 2 Consultation – Shelley Wearmouth

1) Rule 007 imposes **unfair restrictions** on renewable energy developments, specifically solar power plants, **which will needlessly curtail renewable energy development in the Province of Alberta**. Excessive reclamation fund reserves or financial security instruments withdraw important investment capital and/or investment credit capacity from the economy. While reclamation security aims to ensure the polluter pays, excessive reclamation security funding challenges GDP.

- Holding funds for long periods and discounting fair market salvage values leads to excessive reclamation security funding. A balance between abandonment risk and investment capital loss needs to be found, rather than attempting to eliminate all risk. **Alignment between industry and regulators on fair market salvage value is necessary. A joint industry/regulator taskforce to develop a photovoltaic module circular economy or reuse/recycling services is advisable.**

- The Reclamation Security Plan should outline reclamation liability management over the facility life including construction, initial operation, operation, operation wind-down, decommissioning and post closure. The holistic approach should consider financial health, liability magnitude, and corporate performance. It should identify and utilize opportunities such as agrivoltaics and the development of a robust PV module recycling program as strategies to reduce reclamation costs. Periods of risk with remote likelihood and very low magnitude could be self-indemnified. It is probable and favorable that reclamation security funding does not fund reclamation.

- Considerable operating data on each solar operation is maintained by the various regulatory bodies as well as long term market forecasts. Reclamation security cash funds could be required when facility production drops below 90% of original production. This would encourage investment in retrofitting and upgrades to maintain or enhance production instead of investment in financial security products. More broadly, this data could be **utilized to predict financial distress, allowing regulators to proactively prevent facility abandonment which is the ultimate goal.**

- While there is some risk of default in the early years of operation, the most likely and largest financial burden is in the last decade of operation. This is where additional risk mitigation strategies within the regulatory framework are needed. **Rule 007, Section 6 Decommissioning and Salvage of Power Plant requires additional detail.**

2) Consultation only on part of the regulatory framework (AUC Rule 007) without explanation of how the part will fit into the whole regulatory framework **fails** to provide adequate consultation. The recent EPEA Conservation and Reclamation Amendment regulation references the Code of Practice for Solar and Wind Renewable Energy Operations, yet details are not provided. **Will Rule 007 be revisited when the code of practice is released?**

3) End-of-life management and reclamation security requirements should be fair among applicants, and across industries within Alberta and in other jurisdictions. Requirements

must be clear, concise, expeditious, enforceable and sustainable within the current regulatory framework. REO lands can be private, public (federal, provincial, municipal), First Nations, or special areas. The rights of all landowners require consideration however, derelict or abandoned infrastructure is a risk that must collectively be addressed. Clarification is required as to **why non-prescriptive requirements were used.**

AUC Rule 007 Draft Backline Review – Line by Line Comments		
End-of life management and reclamation security		
SP 28)	Clarify	Clarification: The REO C&R Plan per the directive shall include all land manager requirements, timeline for interim monitoring site assessment, plans for decommissioning and salvage.
SP29)	Clarify	Clarification: The Reclamation Security Plan is a living document that addresses reclamation liability management throughout the life cycle of the facility. It is required to meet all current regulations and guidelines set out by GOA. It will map reclamation liability management across construction, initial operation, operation, operation wind down, decommissioning and post-closure liabilities with consideration for any unique characteristics such as REO ownership, landownership, and their agreements. It will explore what-if scenarios related to ownership transitions, market forecasts, grid capacity issues, and premature generation decline. It will cover administrative and legal matters dealing with the release of funds in the event of default. It may include periods where the corporation self-indemnifies or self-bonds such as construction and initial operation. Liability management could also include various types of insurance; construction-in-progress, all perils or other potential risks. These periods of self-coverage will likely be during periods of low probability and low consequences of default which could coincide with strains on REO investment capital. The plan will cover the critical periods of operation wind-down and decommissioning. The intent is to prepare for the period where default has a higher likelihood and a higher magnitude, which occurs at the same time as the facility has the least generating capacity. The plan will include management of post-closure and lifetime liabilities, at the time when REO ownership and land lease agreements may be closing.
SP29) part 1	Clarify – 3rd party cost estimate, see also SP29) part 9	The cost estimate to reclaim the facility is likely to change over the life of the facility and vary depending on the nature of the premature end-of-life. In addition, the forecast reclamation cost estimate for the anticipated end-of-life is likely to change over the life of the facility. As reclamation security is a mitigation strategy to manage risk associated with the failure of a REO to obtain a reclamation certificate and back any potential post-closure and

		lifetime contamination concerns, the reclamation cost estimate should explore the change in reclamation costs over the life of the facility. This is a look at how much funds are required if a facility was to be decommissioned ahead of schedule as well as the anticipated end-of-life. However, evidenced in the cost estimates submitted to date, there is a lack of consensus on the value or cost of handling, reusing or recycling photovoltaic modules. This is likely due to limited historical data, or insufficient experience within the relatively new commercial solar power industry. The cost estimates varied significantly, ranging from approximately $10k/MWac and $60k/MWac. It is recommended that industry and regulators should develop and align on the costs associated with circular economy practices and the end-of-life management of photovoltaic modules. Until such alignment is achieved, the Reclamation Security Plan could carry an end-of-life estimated cost of $50,000 per MWac (or provide an alternative third-party reclamation cost estimate.) The factored estimate option should streamline the application process until some estimating consistency across the industry and regulators can be achieved.
SP29) part 2	Delete – confirmation of funds:	Redundant - This requirement has already been established within regulatory framework – see Section 6, and SP 29) for additional consideration.
SP29) part 3	Delete – how amount is calculated:	This is already included in SP 29) and SP 29) part 1. The calculation shall follow accepted accounting and estimating practices. The matter remains unresolved until alignment on costs is achieved - see Section 6 for additional requirements.
SP29) part 4	Delete – year of initial posting:	As stated in SP 29) the reclamation security plan shall address reclamation liability management for the entire facility life. The REO corporation may propose to self indemnify for low-risk periods. End of life reclamation funds should be levied from facility profits, not initial capital. Excessive regulation will deter investment in Alberta's Renewable Energy Infrastructure.
SP29) part 5	Clarify – Frequency of estimate update:	Clarification: The frequency of update is required for the Reclamation Security Plan which includes a reclamation estimate. Active risk management should identify factors that contribute to the potential for facility abandonment including financial health and liability magnitude. Financial health updates may be completed automatically on an annual basis using available data. This would weigh changes in production, current and forecast market conditions, and corporate performance (compliance status, taxes paid, land rents paid). The reclamation cost estimate or liability magnitude updates should follow the IMSA schedule (noting any changes in facility condition), which could revise the C&R report. The revised C&R report would drive an updated

		reclamation security plan. In addition, the estimate would also be revised in accordance with technology change, regulation change, decommissioning labour and equipment rates, productivity, and Consumer Price Index (CPI). Update frequency does not resolve misalignment between industry and regulator on the fair market value of salvage. Frequent re-estimating is not likely to improve estimate accuracy unless alignment on costs is achieved.
SP29) part 6	Delete – form of reclamation security:	Redundant – see SP 29) and section 6. Reclamation security varies with the operator's financial health, the facility's age, and may change over its lifespan. Example: Renewable energy operators facing financial challenges or decreased creditworthiness may struggle to have instruments like letters of credit (LOC) or surety bonds renewed. If renewal is declined by the bank or agency, the facility could be left without security. LOCs are not recommended for REO in financial stress or where decommissioning is imminent but may be fitting in the early operation phase.
SP29) part 7	Clarify – security beneficiaries	Clarification – see general comment 3. Private Landowners may benefit from Recommended Practices for Private Landowners and REO. This could be developed by an NGO.
SP 29) part 8	Clarify: Access to security	Access to security will likely change with security type and over the facility life. See 29) and section 6.
SP 29) part 9	Clarify and Combine with SP 29) part 1 - estimated salvage value	Clarification: Reuse and recycling are highly encouraged, and valuations should follow current accounting principles which require valuations to be supported with current markets. Alignment between industry and the regulator is required. As the reclamation security plan needs to manage liability over the facility life cycle, if early reclamation is necessitated, alignment on the value of salvage is even more important.
SP 29) part 10	Delete: standard	Redundant: The regulatory framework determines the standard as indicated in the updated REO C&R Plan.

Section 6 – *Decommission and salvage or cancellation of power plants*		
Key area that requires more consideration and consultation		
6.1	addition and clarification	Applications for the discontinuing of operation, decommission and salvage of power plants must include a definitive reclamation plan (DRP) outlining scope (proposed methodology), cost, and schedule and other supporting documents.
6.2	addition and clarification	The operator must submit the DRP as per the schedule in the approved updated REO C&R Plan (likely 5-10 years ahead of the land lease agreement end) or when the facility's production falls below 85% of its original capacity (or other appropriate facility wellness check), whichever comes first. The submission timing assumes that the REO has assessed retrofit or lease extension options.
6.3	addition and clarification	The DRP will outline the funding for reclamation and the management of reclamation security.
6.4	addition and clarification	The DRP will include the most recent IMSA and the approved updated REO C&R Plan
6.5	addition and clarification	The DRP will include details of consultation, permitting, salvage (reuse/recycle or circular economy solutions) and execution plan including multi-year reclamation activities. Salvage valuations must be confirmed with market assessments less handling, and storage charges.
6.6	addition and clarification	The DRP will detail how surface liabilities for five years and lifetime contamination liabilities will be managed.
6.7	addition and clarification	The regulator shall complete a holistic liability assessment considering the REO financial health, reclamation magnitude, facility productivity, market consideration, and regulatory compliance record before assessing the adequacy of the proposed reclamation plan.