AUC
Alberta Utilities Commission

Comment matrix for inquiry submissions

Number	Issue/question	Please provide your view and your supporting rationale
1	**Reclamation security**	
1.1	Should Alberta impose mandatory reclamation security requirements on all types of power plants?	• Yes. • This issue has been raised in consultations, and previous failures to address reclamation security has resulted in the burden of remediation falling on taxpayers, or for lands to be improperly remediated or not remediated, resulting in environmental hazards occurring later[1]. There is no guarantee that power plants will be re-powered, and abandoned power plants can still be harmful to wildlife. • Even for power plants that will be re-powered at the end of their lifespan, some security should be provided to a) cover costs for remediation or service roads, soils, vegetation in field around power plants after construction, b) prevent prohibitive costs of maintenance or re-powering leading to abandonment and c) ensure funding for reclamation even in the event ownership is transferred or contracts are re-negotiated.

[1] https://www.cbc.ca/news/canada/calgary/abandoned-wells-oil-gas-alberta-cost-report-1.6033830; https://www.cbc.ca/newsinteractives/features/alberta-coal-sonya-savage-reclamation-martin-olszynski-energy-regulator

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1.2	Do private contracts between project owners and landowners provide a sufficient level of reclamation security? Should private contracts between project owners and landowners regarding reclamation security be standardized?	• Private contracts should be standardized. Clear, codified guidelines could establish a minimum standard for reclamation and ensure sufficient funds to achieve reclamation. It would also provide certainty to developers, which would help to encourage development and improve consistency in reclamation.
1.3	If new security requirements are imposed, should they only apply on a go-forward basis to new projects, or should they also apply to existing and approved projects?	• They should also apply to existing or approved projects. These projects will still have risks and costs associated with reclamation, and should be setting aside funds for reclamation in accordance with the new requirements.
1.4	What type of security should be required (e.g., cash, letter of credit, surety bond, insurance, etc.)?	• Cash or cash-equivalents (i.e. cheques, money order) should be required. Guaranteed investments (GICs) that will provide the minimum amounts are also possible. These funds should be held in a fashion that protects them from bankruptcy, and they should be used only for reclamation.
1.5	How should the amount of security be determined?	• The amount of security will be based on the funding required to restore the landscape to a functional state, and as close to the original landscape as possible. Reclamation security for all energy projects should always be equal to 100% of the reclamation liability, especially if a project is approaching end-of-life.

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		• Reclamation plans and calculations for liabilities should be public. There should be standardized calculations dependent on size, disturbance, previous land condition, ecozone and difficulty of restoration.
1.6	When in the project lifespan should the security be required?	• Ideally, before or within the first few years of project operation. Funds must be set aside before the reclamation stage, and they must not be used for purposes other than reclamation.
1.7	Should the security be independently reviewed and updated during the life of a project to ensure it is adequate, and if so, how often should that be done?	• Yes. • Security should be constantly updated to reflect the cost of reclamation for the project. This should occur anytime there are changes to the construction or operation plans for a project, or at least once every five years.
1.8	How should the power plant owner demonstrate security is in place?	• Cash and cash-equivalent funds should be held directly by the third-party responsible for security.
1.9	How should the security be structured to address the risk of bankruptcy or default by the power plant owner?	• Security should be protected from bankruptcy proceedings, and should not be used to pay debt. These funds must only be used for reclamation.
1.10	Who should hold and have oversight of the reclamation security program and the disbursement of funds in the event of a default (e.g., Alberta government, municipality, landowner, AUC, other)?	• The AUC or Government of Alberta should have oversight over the reclamation program, and the funds are only be used in reclamation of damaged sites. Municipalities should also be able to oversee work under their jurisdiction and

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		ensure that the reclamation is completed to an acceptable standard.
1.11	Are there Alberta reclamation security programs in place for other sectors that could be adopted for power plants?	• Alberta's other reclamation security programs have proven largely ineffective. Both the Mine Financial Security Program and the Liability Management framework for oil and gas have resulted in companies defaulting on their obligations, with liabilities often becoming the burden of landowners, taxpayers or the Orphan Well Association. One of the major problems lies in the flawed Asset-Liability approach, and the expectation that funds will be collected as projects approach their end. There have also been inappropriate allowances that extend or mask project end, such as combining leases. • To avoid repeating the same mistakes, full security should be required during the early project operation years. The reclamation security program must require security to be posted within the first few years of project operation. For instance, 20 percent of the liabilities could be set aside each year for the first five years of operation.
1.12	Are there other jurisdictions that have reclamation security in place for power plants that should be considered in Alberta?	• Yukon and Quebec require 100% of the security deposit upfront. • BC requires that at any given time, the reclamation security held is not less than 75% of the calculated reclamation security.

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		• Liabilities need to be collected while the project is operating and capable of generating revenue to cover costs. How liabilities are calculated needs to be transparent, and constantly updated to reflect the cost of remediation.
2	**Development on agricultural and environmental lands**	
2.1	Are there certain categories of agricultural land or environmentally sensitive lands where power plant development should not be permitted?	• Power plants should not be permitted on environmentally sensitive lands, especially lands that contain underrepresented native ecosystems such as in the grasslands, parkland or foothills. Only 1.25% of grassland, 0.9% of parkland and 1.4% of foothills is protected. • Development on native prairie should be prohibited, as Alberta has already lost an estimated 75% of native prairie and more than half of they province's species at risk are concentrated in the grasslands. Native prairie provides many benefits, including carbon storage, flood and drought mitigation and water and air purification. These soils built up over hundreds or thousands of years, and once disturbed, are costly and difficult to restore. With so little native prairie remaining, protecting the remaining native prairie from conversion and development is vital to prevent to loss of ecosystem services and endangered

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		species. (Alberta's Grassland Vegetation Index and Native Prairie Vegetation Index can help inform on the location of native prairie in Alberta.) • Power plants should not be permitted in environmentally significant areas (as defined and mapped by Alberta), Key Biodiversity Areas (as mapped by KBACanada), Important Bird Areas (as defined by BirdLife International) and should avoid High Value Landscapes (as defined by ABMI and mapped by PCF). • Power plants should not be developed along known migration pathways for birds or bats. A research program should be funded to address gaps in understanding of bird and bat migration, and in the absence of information, power plants should avoid construction on or adjacent to ridge tops and wetlands, which are known to be important to migrating species. • Development on agricultural land used for crop production should be limited, or renewable energy technology incorporated into crop production.
2.2	Are there land or soil classifications/classes where power plant development should not be permitted?	• Power plants should avoid highly productive soils, and rangelands containing native prairie. Unless appropriate measures are taken, for instance incorporating agrivoltaics around solar projects, building power plants on productive lands will only

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		force crop production onto less productive soils, encouraging conversion of native grassland or forest habitat.
2.3	Should certain lands be set aside in Alberta for only agriculture uses now and in the future? If so, how should these lands be identified?	• Lands that are well-suited to agriculture and support sustainable crop production should continue to be used for this purpose. Rangelands for grazing livestock, particularly those that contain native prairie, should be maintained as native ecosystems, without conversion or development.
2.4	Should there be a streamlined and/or prioritized approval process for power plant development on certain types of lands, provided there are no outstanding concerns related to reclamation security, viewscapes, valued environmental features, compliance with existing rules, etc.? For example: a) Lands owned or controlled by a government or government agency (provincial or municipal). b) Land zoned by a municipality for commercial or industrial development. c) Land already disturbed or with development already in place.	• Land already disturbed or with development already in place should be prioritized for development. • Development on brownfield and industrial sites would minimize disturbance, and could make use of previous service roads. It would reduce the pressure to build on sensitive habitats while lowering costs associated with construction • Industry must remain responsible for any reclamation on these sites, and the company originally responsible for the brownfield site should retain responsibility for decontamination and reclamation costs. These responsibilities should not be transferred to the renewable energy operator.

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2.5	What municipal planning information should the AUC review when considering a power plant development?	• The AUC should review any environmentally significant areas and environmental considerations or natural area plans laid out in Municipal Development Plans and environmental impact requirements laid out in bylaws. It should follow also follow the requirements for solar, wind or other renewable energy developments already considered in municipal bylaws. Municipalities are often able to more thoroughly identify lands within their jurisdiction and are more familiar with the limitations or requirements of their land.
2.6	For power plants that do not align with approved municipal land use plans or zoning, how should the AUC consider this within its public interest determination?	• Municipal land use plans and zoning represent the decision of the elected representatives, and already consider public interest. Zoning should be followed as a reasonable determination of the best land use for the area, unless renewable energy is only one of multiple uses on the land, as is possible for agrivoltaics. In this case, the extent that renewable energy will impact the use set out in zoning or land use plans should be assessed and considered for if this change is a reasonable impact.
2.7	The AUC requires power plant developers to provide a summary of their consultation with local jurisdictions (e.g., municipal districts, counties). Should the requirement to consult	• Yes. • Consultations, in addition to the current requirements, should clearly document all concerns raised, and should respond to

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	with local jurisdictions be enhanced, and if so, how?	these concern with either changes that address these concerns, compromises, or clear reasoning dictating why the concern could not be addressed. Consultations should also account for concerns raised by the public during the engagement process and how these concerns were addressed. These reports should be made public and open to further response or discussion from the public.
3	**Development on provincial Crown land**	
3.1	Should there be development of power plants on Crown land? Should there be limitations or special constraints on the amount or types of Crown land available for development?	• Power plants should not be developed on Crown or Public Land, as renewable energy projects generally have a large footprint and the landscapes most often proposed for renewable energy development are poorly represented in Alberta's protected areas. Projects often focus on the grassland and parkland regions, where protection is low and much of the native habitat has already been lost. Alberta should focus on protecting and restoring the native habitat in these areas. • Crown Lands should not be open for development before a thorough land use policy is developed, and conversion or development on native prairie habitat must be prohibited. Alberta has already lost an estimated 75% of native prairie, and the

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		majority of the province's species at risk rely on this habitat. The remaining habitat must be protected. • Development should focus on already disturbed sites, particularly where restoration is difficult. Development should not be allowed on ecologically sensitive habitat or endangered species ranges.
3.2	What considerations should factor into the Commission's public interest determination? For example, how should impacts to existing Crown leaseholders, permit holders, or license holders etc. (e.g., grazing leaseholders, timber permit holders) be considered? How should impacts to recreational users be considered?	• It is vital to consider the impact of environmental disturbance on ecosystem services, habitat loss and other effects that may impact nearby land and agriculture. • The loss of land for permit holders and other land users should be considered and balanced with land use for renewable energy. Renewable energy is necessary for the transition to a carbon-neutral economy, although siting of these project is vital to minimizing landscape disturbance and reducing negative impacts to other land users.
4	**Pristine viewscapes**	
4.1	How should a "pristine viewscape" be defined?	• Pristine viewscapes are those where industrial activity is not visible or does not interfere with the horizon. There is minimal infrastructure on the landscape that interferes with the movement of wildlife.

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4.2	What criteria, if any, should be used to assess the impact of a power plant development on a "pristine viewscape"?	• The impact of a power plant development on pristine viewscapes should be assessed to determine whether it will significantly impact the enjoyment of the viewscape and wildlife movement.
4.3	How should the impact on viewscapes be balanced against other impacts (positive and negative) when assessing the public interest of a power plant? Does the response differ depending on the type or characteristics of the viewscape?	• The impact on viewscapes should considered in addition to other criteria, although aspects could be incorporated into environmental considerations, and will need to balanced against the benefits of renewable energy projects, such as the importance of increasing renewable energy in Alberta's electricity system. The assessment should consider the landscape characteristics of the proposed site, and propose alternatives that would reduce impact on pristine viewscapes.
4.4	Do wind and solar power plants have the same impact on viewscapes? How do they compare to the impact on viewscapes from non-renewable power plants?	• Wind and solar power plants have different impacts on viewscapes. Wind turbines are taller, while solar panels are lower though take a larger area. Wind turbines also have a greater impact on migrating birds and bats, while solar panels may be more problematic for waterfowl due to the 'Lake Effect' hypothesis, and can act as a greater barrier for migrating mammals, such as pronghorn, due to extensive fencing. • Renewable energy projects generally have a smaller impact on viewscapes than non-renewable power plants. Non-renewable

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		power plants, particularly mining and other large-scale disturbances, can more significantly alter the landscape.