Canadian Renewable Energy Association | Association canadienne de l'énergie renouvelable

May 27, 2025

Laura Frank
Alberta Utilities Commission

Submitted by email to: engage@auc.ab.ca

Dear Ms. Frank:

The Canadian Renewable Energy Association (CanREA) appreciates the opportunity to provide feedback to the AUC on the Draft blackline proposed changes to Rule 007.

CanREA is providing a table of comments included in the Appendix to this letter that details member feedback on the various changes being proposed to Rule 007. The proposed requirements for wind/solar power plant applications noted throughout our comments apply to proposed requirements as applicable to energy storage facility applications as well. We have grouped our comments according to sections as detailed in the appendix and our comments broadly cover the following topics:

- General Requirements (checklists, general information, environmental information) for solar, wind and energy storage
- Municipal Feedback and Engagement with Local Municipal Jurisdictions
- Visual Impact Assessments
- Current and Proposed Agricultural Activities
- End of Life Management, Reclamation Security and Decommission/Salvage/Cancellation
- Approvals, Reports and Assessments from other Agencies
- Participant Involvement Program
- Timelines to Construct (for solar, wind and energy storage)
- Solar Glare
- Indigenous Consultation
- Energy Storage Facilities
- Other comments

We appreciate the opportunity to offer insights on the proposed changes and would be happy to further engage in dialogue on any of the topics outlined in our letter and Appendix. Please feel free to reach out at rrajagopalan@renewablesassociation.ca or 780-405-6941.

Radha Rajagopalan

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Alberta Director
Canadian Renewable Energy Association

Appendix: Feedback on Blackline Version of AUC Rule 007

Blackline	Comment
Checklist for applications	
Page 7 - Section 4.2 - Checklist applications for new power plants equal to or greater than one megawatt and less than 10 megawatts.	A checklist application should be used for standalone BESS facilities less than 20MW. Similarly, an expedited process would be recommended for small solar 20 MW or less. See the "Other Comments" section at the end of this document
Information requirements	
Page 11 – “WP8) Describe any public benefits that will be generated by the proposed project.”	CanREA is concerned that this requirement would, in practice, require proponents to file an additional expert report to address project socio economic benefits. CanREA is against this requirement due to the burden imposed on proponents that would have to incur costs of (a) the report, (b) producing that expert at hearing, (c) paying the intervenors’ costs , including expert costs, of responding to the report and (d) paying for legal counsel on both sides in relation to expert reports and attendance at hearings Such reports represent a massive effort by proponents (e.g., more consultation, more reports, most specialists at hearings) without necessarily providing or identifying additional and/or tangible benefits or impacts to the public, given that even formal studies are subjective and therefore open to interpretation. Applicants are already required to engage with citizens and various levels of government. The PIP is an extensive exercise intended to identify and mitigate stakeholder issues. In CanREA’s respectful submission, the way that proponents wish to express public benefits of their projects should be left to the proponents. Project proponents are already required to engage with citizens and various levels of government. The PIP is an extensive exercise intended to identify and mitigate stakeholder

	issues. In CanREA's respectful submission, the way that proponents wish to express public benefits of their projects should be left to proponents. However, if WP8 is to remain in the final version of Rule 007, (and similar proposed requirements for other types of applications), certain aspects need to be clarified. CanREA acknowledges that the way WP8 is written is reasonably flexible, but suggests that the requirement be clearer. For example, it is not clear whether this requirement would entail a full socioeconomic impact assessment, as is required for certain oil and gas projects (e.g., AER Directive 023, Section 10). Given that socioeconomic impact assessments or cost/benefit analyses do involve some flexibility in defining a 'benefit' and 'cost', the AUC should ensure that Rule 007 provides clear parameters on what aspects of these assessments can be considered by interveners in hearing processes. Instead of a socioeconomic assessment, CanREA suggests that the AUC require proponents to provide "a list of Project benefits" or perhaps identify what specific parameters the AUC is interested in (e.g., estimated municipal tax revenue, employment during construction and operation, commitments to community organizations or initiatives, environmental benefits), which would provide more clarity to proponents and should not be interpreted as a detailed (and subjective) weighing of costs/benefits.
Page 13 – "WP17) Provide a table comparing predicted shadow flicker durations to 30 hours per year for the adjusted-case scenario and 30 minutes per day for the worst-case scenario. Page 13 – "WP18) If predicted shadow flicker durations exceed the above thresholds for one or more receptors, determine mitigation measures that could be implemented to reduce the duration of shadow flicker to comply with threshold values, and evaluate the effectiveness and feasibility of the mitigation measures via modelling."	The phrasing of WP17 is not clear and it is difficult to determine if different standards (hours per year vs. minutes per day) apply for the different assessment scenarios (adjusted-case and worst-case). It would make more sense to simply require applicants to identify whether predicted shadow flicker durations exceed the specified thresholds. CanREA believes the shadow flicker limit of 30min per day for the worst-case scenario is too punitive. The use of the worst-case scenario is not representative of the entire year. There is no scientific basis for health concerns for a baseline requirement to provide reporting related to shadow flicker. There may be nuisance concerns but those should be

	dealt with through consultation and complaints, not by setting the bar to meet as the worst-case scenario. There is concern that adopting a worst-case scenario requirement suggests the AUC is concerned about perceived health concerns regarding the impacts of shadow flicker when none have been identified to the AUC to date. Also, the worst-case scenario is over conservative and not necessary to rely on as it is not representative of ranging weather conditions actually experienced. As a regional example, in Nova Scotia the limit is 30hrs per year adjusted case, with no limits on maximum daily. Furthermore, these assessments are completed on a hypothetical situation. A modeled shadow flicker prediction that exceeds these thresholds is not necessarily indicative of an actual impact to a receptor (on a highway or at a home). CanREA advocates that it is not reasonable to require mitigation measures if predicted shadow flicker durations do not exceed the set thresholds for the worst-case scenario (compared to only for the adjusted-case scenario). We have noted similar comments below for SP14 related to solar glare.
Environmental Information	
Page 15 – “WP21) List the key environmental regulations and guidelines applicable to the project and provide rationale for any deviations from the guidelines.”.	This requirement should be more specific. It is not clear what "key environmental regulations and guidelines" refers to. If the reference is to the Wildlife Directives for Alberta Solar / Wind Projects, then Rule 007 should reference that document directly.
Pg 15 – “WP21) List the qualifications of the individual(s) who conducted or oversaw the environmental evaluation and indicate any respective practice areas, practice standards or standards of competence demonstrated by these individuals.”	It is not clear what "demonstrated" means in this context. Should the phrasing "applicable to" be used rather than "demonstrated by"? If the phrasing is to remain as "demonstrated by", then clarification is required as to what experience is sufficient to demonstrate competence.

Page 15 – WP22) “If not contained within the impact analysis, include information describing all potential environmental effects of the project.”	The phrasing "all potential environmental effects of the project" is broad, particularly compared to WP21, which lists specific requirements and is focused on potential adverse environmental effects. The rule should be clear on what impacts should be considered as part of the review process for projects wholly or partially located on on federal lands.
Municipal Feedback	
Page 23 – “WP 41) As described in Section 6.3 of Appendix A1, confirm that the municipal engagement form was provided to the affected municipality to complete for a minimum of 30 days, before filing the application. If the municipality completed the municipal engagement form, provide this form. If the municipality declined to complete the municipal engagement form, confirm what steps were taken to follow up with the municipality, including submitting copies of correspondence.”	CanREA has supported municipal involvement in AUC proceedings in previous consultations. However, CanREA does not think it is appropriate for the municipal form to invite municipalities to provide feedback on the “applicant’s consultation program”. Consultation requirements are set out in Rule 007 and consultation with municipalities will be documented in the PIP and through these additional requirements. Upon receiving this information, it is for the AUC to decide if consultation was adequate. Municipalities should limit feedback only to issues related to municipal bylaws. An AUC application is not the appropriate process whereby proponents should have to justify compliance/non-compliance with processes under Municipal jurisdictions, because outcomes may not be fully known at the time of Application to the AUC. Most key municipal permits and agreements would likely not be finalized until a project receives an Approval. Members are also concerned about how differences in opinion or requests for relaxations would be viewed and used by groups/municipal politicians opposing projects during a Proceeding. Furthermore, the requirements may be viewed as promoting conflict between a proponent and the municipality by removing flexibility or negotiability.
Visual Impact Assessments	

Page 19 – “WP 28) An evaluation of the anticipated visual impacts on the buffer zone or visual impact assessment zone.” Page 19 - WP28 – Proposed mitigation measures to minimize or offset any adverse visual effects on the buffer zone or visual impact assessment zone.	Although the phrasing "impacts on the buffer zone or visual impact assessment zone” is the statutory language from the *Electric Energy Land Use and Visual Assessment Regulation (* EELUVA), this language is confusing for applicants. More guidance could be provided. For example, it is not clear what is meant by impacts "on" a buffer zone or visual impact assessment zone where a project is located within the zone. This requirement should refer to the viewscapes at issue, however they are ultimately described (see comments below). Mitigating visual impacts on the entire zone within which a project is situated is an impossible standard. Mitigating visual impacts is a difficult task for any industry. There is really nothing practical that can be implemented as mitigation for turbines and for solar. Implementation of vegetation screens is challenging, especially in a semi-arid climate normal to the southern portion of the province where most renewables are located. Planted vegetation may not even take or may require long-term irrigation, which in all likelihood would require a long term permit. More clarity is needed as to the scope and parameters for the Visual Impact Assessment and simulations in consideration of the impact of this requirement on project proponents. For example, for solar facilities, these visual simulations can range in cost from $20k-80k.
Page 19 – “WP 28) Visual simulations from key vantage points illustrating the potential visual impact of the project.”	Bullet points in this section use "visualizations" - either "visual simulations" or "visualizations" should be used consistently for clarity.
Page 19 – “WP 28) Key vantage points should include locations with valued viewscapes determined to have a major or major/moderate severity of impact ranking in the visual impact assessment.”	The Rule 007 blackline does not contain a definition of a ‘valued viewscape’, and it is subjective as to what can be a "valued viewscape". WP28 could instead refer to viewscapes at issue within the zone, or consideration could be given to what view is (likely) the key concern for each of the zones. Rule 007 should not impose requirements with respect to locations other than those sites referred to in the EELUVA. For clarity, the language and requirements in WP28 should align

	with the discussion of visual impact assessment requirements and designated buffer zones and visual impact assessment zones under the EELUVA. The Rule 007 blackline contemplates visualizations from residences, which is not specifically discussed in the EELUVA.
Current and Proposed Agricultural Activities	
Pg 18 – Agricultural Information	Overall, CanREA notes that the agrivoltaics assessments are triggered by the presence of Class II land, but are not limited to the Class II lands. CanREA believes there should be a more limited application of these requirements to the triggering (i.e., "high value") lands. E.g., a project with 1% Class II lands has to prepare an agricultural plan and deliver detailed information for 100% of the project. This is unfair and not in keeping with the regulation. When a project proponent provides a long-term agricultural plan, consideration should be given to the fact that project developers are not agricultural specialists and there is potentially confidential business information as part of co-located projects that business owners (who may be different than project developers) might not want public. Currently operating producers do not have to report of the success or failure of their operations therefore it is not clear why landowners should be required to provide that information publicly simply because they lease their lands to wind/solar developers. CanREA is not aware of another commercial or industrial business that has to evaluate co-location of its activities on agricultural land. If these requirements remain in place, CanREA believes they should not be necessary if the project is not located on currently active agricultural lands. Also, it would help to know the purpose of the information that is being requested. For example, if this information relates to the AUC's consideration of the best use of project lands, it might make sense for the AUC to understand how a project/agrovoltaics proposal maximizes output from both the energy and agricultural components rather than solely

	assessing agricultural productivity changes pre- and post-renewable development. CanREA further requests that the AUC provide an exception to these requirements for high-value agricultural land that is zoned for commercial/industrial use. For example, the AUC's decisions regarding Killam Solar (29678), Airport City Solar(27885), and Saamis Solar (27788) projects. The AUC might also want to consider exceptions where landowners and proponents want to implement ecovoltaics because the landowner has a conversation interest in their land and they should be allowed to make that choice for their own land.
Page 16 – "WP26) Professional qualifications of authors who prepared or reviewed agricultural land information."	WP26 should be listed after the requirements in WP27.
Page 17 - WP27) Soils component, part (a): "Describe how potential impacts to soil quality, quantity, hydrology and hydrogeology will be adequately mitigated during construction, operation and reclamation."	Again, CanREA notes that this requirement should not be in place for non-agricultural lands. For example, these requirements should not apply if a project is located in forested lands, even if it is classified as Class I or Class II. Furthermore, CanREA notes that the information requested in this section is provided or can be provided in the Conservation and Reclamation Plan or as part of the Environmental Evaluation in the soils section. There is no need for standalone reports.
Page 17 – WP27) Soils component – a) "Describe all soil series within the project area and report all potential impacts to:"…	It is not possible in any scenario to describe 'all' components without digging up all of the soil. The term 'all' is too onerous and should be removed. "Describe all earthworks" is also not a reasonable requirement. Some aspects of the project change in detailed design so the term "all" should be replaced by "predicted". CanREA would also like to point out that these requirements are duplicative of a PDSA and therefore the AUC needs to determine whether to require the PDSA or whether the requirements will now be under this rule.

Page 17 – WP27) Soils component – b) "Describe how potential impacts to soil quality, quantity, hydrology and hydrogeology will be adequately mitigated during construction, operation and reclamation."	The term "potential adverse impacts" should be replace the term "potential impacts". CanREA advocates that these soil components not be a requirement for non-agricultural lands. For example, these requirements are not necessary if a project is located in forested lands.
Page 17 – WP27) "Soils component – c) – …Methodology to anchor structures (e.g., screw piles, concrete footings)."	This information may be known for wind projects at the time of an AUC application, but is not often known at the time of application for solar projects.
Pg 17 – WP27) "Soils component – c) – …The extent of stripping and grading, with an estimate of the area of agricultural land impacted."	This information also is not often known at the time of application. AUC applications include a document called the environmental evaluation. This includes a description of all temporary and permanent disturbance, and description of impacts to various landcover types, soil types, vegetation, etc. Further work is done prior to construction to further delineate the soils types. Approximate numbers can be provided at application but will need to be altered over the course of detailed design to be accurate.
Page 17 – WP27) "Soils component – c) – …Description of how these activities have been reduced in both extent and intensity (as practical) to protect the quality, quantity and hydrology of impacted soils.	This requirement is repetitive of the requirement in (b), which is "Describe how potential impacts to soil quality, quantity, hydrology and hydrogeology will be adequately mitigated during construction, operation and reclamation." The requirements in (b) and (c) could be combined. For example the wording could be: "Describe how these activities have or will impact soil quality, quantity, hydrology and hydrogeology during construction, operation and reclamation and how the impacts will be mitigated against in terms of extent and intensity."
Page 18 – WP27) "Current and proposed agricultural activities "d) Describe the current agricultural activity within the project lands (e.g., crop rotation, grazing regime) and typical yield, revenue or other	This is not always available from a project landowner. "Current" and "typical" does not specify how many years of history is needed. CanREA agrees the wording helps with keeping this requirement flexible, but perhaps "if available" should also be added.

applicable measure of productivity for the agricultural activities on the project lands…"	
Page 18 - WP27) Current and proposed agricultural activities, part (d): "... Comment on any constraints to co-locating the current agricultural activities within the project lands and any project alterations, upgrades or specialized equipment necessary to maintain the current agricultural activities."	This portion of section (d) is duplicative of (e) and could be deleted. Also, although unlikely to present significant additional burden in the context of the assessment, for solar projects this is unlikely to be helpful or necessary given known constraints on co-locating traditional crop production with solar.
Page 18 – WP27) Current and proposed agricultural activities "d) … Describe how the performance of the proposed agricultural activities will be reported and monitored."	This is a standalone requirement. CanREA advocates that this requirement be changed to require a commitment to a plan that is agreed to between the landowner and the lease owner on co-location/dual use. Rule 007 should also clarify how long projects need to be monitored. It seems unreasonable to expect that a project will be monitored for the project duration in perpetuity. Also, the AUC might want to consider whether this requirement should be captured in Rule 033: Post-Approval Monitoring Requirements for Wind and Solar Power Plants.
Page 18 – WP27) "Current and proposed agricultural activities "e) If the current agricultural activities are not feasible, explain why…"	This is duplicative of the last sentence of the requirements in (d).
Page 18 –WP) "Current and proposed agricultural activities "e) …The specifics of the co-located alternative agricultural activities including sufficient details to demonstrate the feasibility of such an agricultural system (e.g., cropping proposal, availability of forage, stocking rates, specialized equipment, animal welfare needs, water requirements and sources)."	"Sufficient details" is vague and makes it unclear who will make the ultimate decision on the sufficiency of information on agrivoltaic plan feasibility. In recent AUC proceedings, the sufficiency of information included in the proponent's agrivoltaic plan has become a hearing issue involving expert evidence from the proponent and interveners, which imposes significant costs on proponents. Requiring an "assessment of the feasibility of such an agricultural system" instead leaves the assessment with the agricultural experts and therefore is more reasonable. In addition, an itemized list of details requested would help to

	prevent the same arguments arising in multiple hearings. For example: type of agricultural product(s) planned, general location in the project area where the product will be produced, how and where any livestock will receive water, whether irrigation will be required and, if so, feasible water supplies to support it, and information to demonstrate a viable market for the product. As well, we note that the requirement for an Environmental Evaluation and Conservation and Reclamation Plan components for an AUC submission include many details on land and soil impacts, conservation, and preservation and mitigation, rendering this requirement a duplication of those requirements.
Page 18 – WP27) "Current and proposed agricultural activities "e) …Compare the expected productivity of the co-located alternative agricultural system to the productivity of the current agricultural activity within the project lands (i.e., response to request WP27[d]) and express it as a percentage of the current productivity."	This appears to restrict the productivity comparison to agricultural uses only. However land productivity and economic equivalency may not be achieved on agricultural productivity alone. We encourage the AUC to consider productivity more broadly. For example, the Dolcy Decision allowed for some flexibility (**28723-D01-2024 (September 12, 2024):** "The Commission considers that relative agricultural production can be relevant to assessing best use, but that a best use evaluation should focus on a comparison of the potential agricultural productivity of the land, with the actual proposed use of the land on a holistic basis – including benefits associated with renewable power generation.") Furthermore, this requirement assumes no other environmental impacts are affecting agricultural land but droughts have been an increasingly frequent issue in Alberta which may have an impact on land productivity. Neither the Developer nor the AUC can objectively and accurately determine the impact of environmental factors on land productivity.
Page 18 –WP27) "Current and proposed agricultural activities "f) Describe how the performance of the co-located agricultural activities will be evaluated over the course of the project life and the	This requirement is somewhat duplicative of the last portion of requirement (d). Also of note, requirements with respect to monitoring/ evaluation post-approval should be captured in Rule 033.

potential for changes to the agricultural activities in the event of poor productivity performance.”	This requirement is also vague. It is difficult to assess what is considered "poor productivity" and when agricultural activities must be re-assessed, particularly given that it may take years for an agrivoltaic operation to achieve its potential. It is also not clear what requirements may apply regarding future changes. Instead of the proposed wording for f) it would be clearer to require proponents to outline options to improve productivity in the event production levels are lower than anticipated. CanREA suggests the requirement could be: f) Describe options to improve performance of the co-located agricultural activities over the course of the project life and the potential for changes to the agricultural activities in the event of poor productivity performance. Notwithstanding these suggestions, CanREA also notes that the commitments made should reflect nothing more then a written plan between landowners and leasees regarding co-location, anything more puts a substantial burden on the renewable industry around agricultural operations which is not their area of expertise.
End of Life Management and Reclamation Security	
General comment	In general, CanREA suggests that the AUC should indicate what standards apply with respect to reclamation security rather than require proponents to provide the proposed information. It will help create consistency and provide clarity for project proponents. CanREA would also like to note that as noted by DNV in their report to the AUC during the Module A proceedings, to date there has been no evidence of abandoned renewable energy project sites in North America.
Page 20 – “WP 30) Describe the reclamation security plan for the proposed power plant. The plan should include:	CanREA suggests removing or modifying this requirement given that reclamation security requirements are designed with potential bankruptcies in mind. Alternative phrasing such as “have sufficient funds available in the form of reclamation security” would be more appropriate (i.e., proponents should not be required to have

• "Confirmation that the operator will have sufficient funds at the project end of life to meet its reclamation security."	sufficient funds over and above a letter of credit for the full reclamation security amount). The AUC may also want to be clear about what it is deeming 'sufficient funds'. For example, security requirements upfront in some jurisdictions are as low as 5% of decommissioning costs net of salvage and are considered sufficient to meet end-of-life reclamation requirements, but increase over time such that by year 30 enough security has been collected to cover reclamation.
Pg 20 – "WP 30) Describe the reclamation security plan for the proposed power plant. The plan should include: • "The year of initial posting and when each subsequent amount will be added. • "The frequency with which the reclamation security estimate will be updated or re-assessed."	The AUC should clarify what the requirements are and include them in Rule 007, providing an option for proponents to propose an alternative with supporting rationale. Currently, there is no consistent requirement or precedent with respect to reclamation security requirements, so clarity from the AUC on the requirements would be helpful. CanREA suggests that an update to security estimates every 10 years is a reasonable timeframe. Most jurisdictions do not require upfront security and only require security after several years of operation given that most projects are contracted and are at low risk of default in the early years of their life.
Decommission and Salvage or Cancellation of Power Plants	
Page 93, Section 6 – "Provide a feedback summary table to identify all persons who expressed a concern(s) about the project that includes the following information."	There appears to be omitted or incorrect language. It is not reasonable to request a table of concerns received over 30 years of operation at the time of decommissioning a power plant. Perhaps this is meant to be concern(s) about "decommissioning" the project?
Approvals, Reports and Assessments from other Agencies	
Page 21 – "WP 35) Provide the Historical Resources Act approval. 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."	Given the new requirement to provide the *Historical Resources Act* approval, the wording in the first sentence of WP35 should be changed to clarify that an approval is to be provided: "If a historic resource impact assessment was required..."

	CanREA also notes that this information would be captured in a PIP so it may be a duplication of information that will already be provided to the AUC.
Participant Involvement Program	
Page 23 – “WP 40) Summarize consultation with local municipal jurisdictions (e.g., cities, towns, municipal districts, counties). Describe how the applicant engaged with potentially affected municipalities to modify the proposed power plant or to mitigate any of its potential adverse impacts to the municipality.”	This is negative wording that suggests at the outset that municipalities want projects to be modified. It would be more appropriate to use: "describe any concerns or requests identified by the local municipality(ies) and steps taken to resolve those concerns or requests". Also, this is duplicative of WP44. Per changes to the PIP Guidelines (Appendix A), local municipalities must be consulted as part of the PIP. Their feedback should be reported along with all other stakeholder feedback.
Page 23 – “WP 41) As described in Section 6.3 of Appendix A1, confirm that the municipal engagement form was provided to the affected municipality to complete for a minimum of 30 days, before filing the application.	The phrasing "affected municipality" is also negative wording that suggests at the outset that municipalities want projects to be modified. All references to “affected municipality” should be replaced with "applicable municipality" or other language indicating that it would be the municipality where the project is located, rather than assuming the municipality will be affected.
Solar Power Plant Applications	
Page 27 – 4.4 – Solar power plant applications	Comments related to proposed requirements for wind power plant applications apply to proposed requirements in this section, as applicable.
Timelines to Construct	
Sections 5.1 and Section 10.7.1	The introduction of a fixed five-year timeline presents a material risk to proponents' ability to finance projects. CanREA continues to advocate and support standard construction periods of no less than 10 years, if other documents (such as AEPA Referral reports) are kept up to date. CanREA also requests clarity on whether this requirement will apply for existing approved projects.

	The proposed five-year window to complete construction from the date of approval does not align with the practical realities developers face. Lead times for critical equipment, such as main power transformers, breakers, and energy storage systems, have lengthened significantly, with delivery timelines now commonly extending much longer than in the past. These components are typically not ordered until a project has reached a 'ready-to-build' stage, which includes securing all major permits and approvals. Shorter timelines would require developers to make major investment decisions prior to securing permits. Long lead times are not just "nice to have". They are essential to future investment in renewables in Alberta. Our understanding is that transmission facility owners share CanREA's concern. As an example below is a sample scenario: P&L – Power and Line MTP – Module Type Package FID – Final Investment Decision • AUC Approval – January 2026 (January 2031 Expiry) • Transmission Line P&L – January 2027 • Municipal Permit - July 2027 • FID and procurement of long lead equipment (MTP or Wind Turbines) - September 2027 • Start of construction April 2028 • Finish construction April 2030 • This scenario, leaves just 8 months of flexibility to make a FID once all major permits have been secured. There is no room for flexibility or any allowances for a delay in FID. This scenario leaves just 8 months of flexibility to make a FID once all major permits have been secured. There is no room for flexibility or any allowances for a delay in FID. In addition, there are many factors that can impact a project construction schedule which are entirely out of the applicant's control. For example, timelines for the AESO interconnection process are largely still unknown (particularly for cluster projects). Also out of project proponent's control are items like REM/OTP which are impacting project proponents' ability to secure

	offtake and, consequently, project finance. Supply chain issues could arise again as a result of global trade wars. Procurement timelines for some high voltage breakers in the US are 50+ months, which could extend into Canada. Other items like Water Act approval timelines, weather events, etc. can also significantly impact overall project timelines. A construction timeline of 10 years would be more reasonable. Furthermore, coordinating the sequencing of an AUC power plant approval, AESO interconnection approval, municipal development permits, water act approvals, transmission line approval, equipment procurement, and construction scheduling is a complex process. Unless all of these elements align perfectly (rarely achievable in practice) a five-year construction deadline from the date of approval is not realistic. Project lenders and equity investors require a high degree of regulatory certainty in order to commit capital. Under the current proposed wording, if a project is not constructed within five years of approval, the AUC may revoke the approval. This imposes an unacceptable risk profile for financiers, as there is no clarity on whether extensions will be granted, nor on what basis the Commission might determine that a delay justifies re-opening or cancelling an approval. Five years leaves no room for flexibility or delay in FID, and it is not clear what would qualify as an exceptional circumstance. At a minimum, the updated Rule 007 should provide clarity that extensions are available and furthermore the AUC should provide more flexible and clearly defined criteria for granting time extensions “for exceptional circumstances” beyond the initial five-year construction period. Consideration should be given to introducing: • An automatic extension mechanism upon demonstration of good-faith progress and/or uncontrollable delays, or • A longer default construction period (e.g., 10 years) for renewable and storage projects, or, at a minimum, five year deadline to the *start* of construction.

	• If a blanket timeline to construct is to be applied then, as discussed above, CanREA proposes lengthening the timeline to construct to at least 10 years. The above suggestions allow for flexibility to make a FID, without having to resubmit an application CanREA also notes that the imposition of a blanket construction timeline that is too short is not in the interest of regulatory efficiency, since more applications will be resubmitted, requiring additional AUC resources and causing unnecessary burden on local stakeholders, as opposed to granting time extensions.
Solar Glare	
Pages 30 - SP14 – Solar glare assessments	CanREA believes the hazard glare analysis seems too onerous. Glare may be possible but solar panels, by design, are designed to absorb light, not reflect it. There is additional cost to doing an analysis but the bigger issue is the limitation of the glare modeling technology. The proposed requirements would be challenging if not impossible to model using current modelling technology. For example, the standard glare modeling technology cannot model the impact of fencing/screening (ie. existing or proposed vegetative buffers) or obstructing glare. At best, models will show an opaque wall. Furthermore, the modeling requirements from the AUC are in excess of what is known to be the maximum field of view that affects a person's ability to drive their car or operate an aircraft (Ie. It is not relevant to safety to model glare beyond 15 deg for roads). The AUC should not be involving themselves in regulating spaces that are the purview of Alberta Transportation and Economic Corridors for highways and Transport Canada for the aviation pathways. The AUC should not be placing stricter limits than those approved by other responsible regulatory bodies. Also, models are so over conservative (assumptions and software done to model glare) that they are overpredicting potential real-world glare. CanREA would also like to note that no complaints regarding solar glare on roads have

	been raised or disclosed to the AUC to date and therefore, this issue cannot be defined as a nuisance. Because there have been no complaints to date, unless there is a clearly defined safety hazard, it is unnecessary to ask for mitigation upfront (ie. Plant trees, build fences or build walls etc.) CanREA would also like to point out that the requirement regarding a 30 min per day glare limit appears to be taking considerations regarding shadow flicker impacts and applying them to solar glare, which is not based on scientific studies. There is no connection between the two issues and they should not be conflated.
Pages 33 - SP16 – Solar glare assessments mitigation	CanREA does not believe that mitigation should be required to be modeled in the absence of a complaint. The standards included in the draft Rule 007 (SP 14) do align with AUC precedence. Currently established modelling standards are designed to create a conservative assessment, and further remodeling assumptions ensure a conservative assessment. The modeling is conservative through several factors. Mandated mitigation based on theoretical modelled results, as required by SP14 (and WP18), is excessive. This will impose an unnecessary financial burden on proponents. It is concerning that industry is being asked to mitigate and confirm mitigation (see SP16) before any 'real' impact occurs (i.e., a complaint has been expressed). A modelled effect does not necessarily translate into an effect at a receptor, and does not necessarily mean an individual/receptor will have a complaint during the operations phase of a project. Therefore, the requirements for mitigation of solar glare based on a worst case scenario are not reasonable. For example, there are existing projects facing major highways where no glare concerns have ever been reported. Mitigation requirements could result in de-facto large setbacks from roads to resolve theoretical issues that would not arise in operation. In certain cases, the proposed approach could preclude projects from proceeding on otherwise ideal sites from a

	stakeholder, environmental, agricultural and/or grid perspective (e.g., industrial sites). The parameters proposed for SP16 may not answer the question “is the solar glare going to cause a safety risk?” Studies have shown the field of view up to 15 deg for roads and highways is a safety risk but requirements from the AUC are much higher than what studies have suggested. As a result there is no basis for these more restrictive requirements.
Page 31 – “SP 14) Submit a solar glare assessment for the project. The solar glare assessment must: • “Predict potential glare impacts from the project at the following types of receptors: ○ “Highways, major roadways, railways, and associated intersections within 800 metres from the power plant project boundary.”	SP14 is not clear on the definition of a “major roadway”. The requirements related to solar glare refer to “major roadways”, "roadways" generally, "heavily travelled road" and "local road". Heavily traveled road is defined in AUC Rule 012 (regarding noise impact assessments), but the other terms are not. CanREA suggests using the Rule 012 terminology for consistency. Rule 012 definition of “Heavily traveled road”: Includes highways and any other road where 90 or more vehicles travel during the nine-hour nighttime period consistently for any one-month period in a year. Depending on what terminology is selected for final Rule 007 changes, there should be a minimum threshold or definition for what a "local road" would be under Table 4.4.
Page 32 – “SP15) Predicted glare levels shall be compared to the following limits.”	The words "limit" and "acceptable glare impacts" are not appropriate to use in SP15 and SP16, where other language suggests that predicted glare levels are to be compared to those stated in the tables. If the AUC is retaining the discretion to approve projects with glare levels that are modeled to exceed those in this blackline, then it does not make sense to set "limits" or "acceptable impacts" in Rule 007. It is recommended that “limit” be replaced with “level” and “acceptable glare impacts” be replaced by “glare impact level”.
Page 32 – “SP15) Table 4.4 – *Limits on acceptable glare impacts* – Column: “Limit (yellow glare)”	CanREA’s understanding is that requiring a zero glare modeled scenario should not be required, as the modelled scenario is not realistic based on the conservative nature of the models nor is it

	reflective of the risk posed. It is not impossible to obtain a 0 glare impact - it's just unreasonable to do so, as the modelling is so conservative that it's not practical to consider the modelled results will ever be experienced fully.
Page 33 – "SP16) For a project with rotating solar panels, describe the minimum resting angle that will be used during project operation to eliminate or mitigate the predicted glare on transportation routes, runways, flight paths and residences."	Consider if "rotating solar panels" is the best descriptor to use. CanREA suggests replacing "rotating" with "tracking".
Page 33 – "SP16) If glare with potential for temporary after-image (i.e., yellow glare) is predicted **on** receptors but predicted glare levels do not exceed the limits."	CanREA suggests replacing the phrase "predicted on receptors" with "predicted for receptors" or "predicted at receptors".
Page. 33 – "SP16) Verify the effectiveness and feasibility of the recommended glare mitigation measures via modelling."	CanREA notes that this modeling requirement is too onerous/burdensome because it may not be feasible to provide useful modelling for mitigation of an unknown complaint/concern. In addition, there are limits to what models can "verify" with respect to mitigation (see discussion above).
Page 43 – "Green Box: If the glare assessment includes runways, flight paths and/or highways as receptors, the applicant must confirm that it has provided a copy of the glare assessment to Transport Canada, Alberta Transportation and the local government, and has consulted these parties about potential glare impacts." Page 46 – "Table 4.6 – *Final project update requirements for solar power plants* – Row: Glare – Confirm that the changes do not cause additional solar glare at route receptors (e.g., highways, major roadways and railways) and any registered and known unregistered aerodromes."	As indicated above under SP14, the term "highways" is not clear in the context of the glare assessment requirements.
Indigenous Consultation	
Page 180 – Appendix A1-B – Section 2.1	CanREA is seeking clarity on the new language added to Appendix A1-B (section 2.1) regarding Indigenous consultation. CanREA wants to ensure decisions regarding consultation (i.e., who is consulted, how they are consulted and

	about what) are made in a manner consistent with the law on the Crown's duty to consult.
Energy Storage Facilities	
Page 113	CanREA's comments regarding proposed requirements for wind/solar power plant applications, above, also apply to proposed requirements regarding energy storage facility applications as applicable.
Page 117 – "ES21) Describe how the applicant will continually update and improve its emergency response program including the site-specific emergency response plans, including how it will continue to incorporate input from local fire departments and nearby landowners/residents."	The phrasing "continually update and improve" its emergency response plan and "incorporate input" creates a requirement that is too onerous. In particular, it may not be necessary or appropriate to incorporate all stakeholder input received in consideration of measures already in place or various other factors. CanREA suggests replacing this phrase with a requirement to describe "how the applicant will continue to solicit and consider input" on the emergency response plan, which might be more appropriate, or consider deleting the last part of this sentence that refers to the incorporation of input.
Page 117 – "ES24) Describe the battery chemistry, for example, Nickel Manganese Cobalt (NMC) or Lithium Iron Phosphate (LFP)."	This should refer to "the proposed battery chemistry", since a final battery manufacturer may not have been selected at the time of a project application and may change after detailed design.
Page 117 – "ES27) Submit a report that provides air quality dispersion modelling and a risk assessment using the best available information on the battery type to be used (e.g., select the characteristics of the most likely or most representative choice of battery vendor). The report should include, but is not limited to:…"	CanREA advocates for more specific parameters around modelling requirements or safety standards. For example, related to hydrogen fluoride (HF) emission modelling, the Commission has held that UL 9540A test results are more informative than blanket assumptions of an HF emission rate, and are now routinely requesting UL 9540A test result information in energy storage facility applications. It would be in the interest of regulatory efficiency to require and rely on UL 9540A test results to a certain extent/where appropriate. In addition, gases such as HF are only released in a catastrophic event, the emergency release modelling is very different and has different parameters.

	CanREA suggests there be an exemption to the requirement to conduct dispersion modeling if dwellings are far enough away to avoid impact and the UL9540A test results did not detect HF during induced thermal runaway. The phrasing "best available information" is vague/subjective. It would be better to simply specify that the report should be based on the characteristics of the proposed or most representative choice of battery vendor, if that is the intent of this requirement.
Page 117 – “ES27) Submit a report that provides air quality dispersion modelling and a risk assessment using the best available information on the battery type to be used (e.g., select the characteristics of the most likely or most representative choice of battery vendor). The report should include, but is not limited to: • “The chemistry and toxicity of the emissions to adjacent residents and animals at the closest residence and the proposed project boundary.”	It is not clear what is meant by "toxicity". It is also confusing to refer to both "adjacent residents" and the "closest residence" in this sentence. If the risk is to humans and animals, it would make more sense to simply refer to humans and animals. Also, it might make sense to limit the distance as a closest residence may be quite far from the project boundary so limiting the distance to a 1km boundary next to the project might make sense.
Page 117 – “ES27) Submit a report that provides air quality dispersion modelling and a risk assessment using the best available information on the battery type to be used (e.g., select the characteristics of the most likely or most representative choice of battery vendor). The report should include, but is not limited to: • “Describe what training (initial and ongoing) will be provided to emergency responders and indicate whether the emergency responders have requested training. • The mitigation measures that should be included in the site-specific emergency response plan.	These requirements are more appropriately included in emergency response plan requirements or otherwise as standalone requirements, rather than a requirement in connection with air quality dispersion modelling/risk assessment report. Consultants who prepare dispersion modelling reports may not be the appropriate professional to prepare a site-specific emergency response plan and to describe mitigation measures.
Time Extension for Energy Storage Facilities	

Page 128 –10.7.1 Initial period to construct	The comments above with respect to power plant facilities also apply to timeline requirements for energy storage facilities.
Information Requirements	
Page 153 – “AT5) Confirm that the proposed approval holder is a qualified owner, that it will take over the existing reclamation security plan for the facilities, and that it has sufficient funds to meet the plan.”	The comments above with respect to the use of general language regarding "sufficient funds" with respect to reclamation security requirements for power plant facilities also apply to the use of this language for approval transfer requirements. In addition, CanREA is concerned that requiring transferees to demonstrate that they have "sufficient funds to meet the (reclamation) plan” would require an assessment the liquidity and financial health of the transferee (which has commercial sensitivities in oil & gas and that concern is true for the renewable sector as well). The AUC could consider alternative phrasing such as requiring a declaration from the transferee confirming they will assume the security obligations, or perhaps that the security in place will be transferred to them as part of the transaction.
Glossary	
Page 158 – Local authority – “The municipality and other relevant municipal parties such as emergency services, infrastructure services, and planning services.”	The AUC could provide more specificity on which parties would be Local Authorities that must be consulted under the various provisions requiring consultation. That phrasing lacks clarity for project developers to know whether the list provided in the definition is comprehensive.
Pag 159 – Power plant project boundary – “The limits of a power plant project defined using all quarter sections of land on which permanent project infrastructure is sited (above and below ground), including collector lines. If any portion of a project is sited within a quarter section, that quarter section should be included in the project boundary.”	The phrasing of this definition should be considered in connection with Rule 007 requirements regarding project footprints, and particularly agricultural information requirements. For example, this definition may create confusion if there are Class II agricultural lands within a quarter section where a project is located, but not within the project footprint

Engagement with Local Municipal Jurisdictions	
Page 175 – “Engagement with local municipal jurisdictions – For any power plant and energy storage facility application, the applicant must provide the Municipal Engagement Form [link] to **the affected municipality** to complete for a minimum of 30 days before the application is filed. The municipal engagement form provides an opportunity for an affected municipality to share information regarding the project with the…”	Comments above regarding the language of "affected municipality" in the context of power plant application requirements apply equally here – the language suggests that municipalities intend for projects to be modified at the outset. “Affected municipality” should be changed to "applicable municipality" or "potentially affected municipality" or other language indicating that it would be the municipality where the project is located, rather than assuming the municipality will be affected. Also, this is duplicative of WP44. Per changes to the PIP Guidelines (Appendix A), local municipalities must be consulted as part of the PIP. Their feedback should be reported along with all other stakeholder feedback.
Projects on a First Nation Reserve	
Page 186 – “While an AEPA renewable energy referral report is not required for wind and solar projects on reserve, the Commission expects applicants to demonstrate that the project complies with the standards and best management practices outlined in the provincial Wildlife Directive for Alberta Solar Energy Projects and the Wildlife Directive for Alberta Wind Energy Projects (Wildlife Directives) to minimize effects to wildlife and wildlife habitat. If the project does not comply with the standards and best management practices in the Wildlife Directives, rationale for any noncompliance must be provided to the Commission for consideration.” “Applicants are required to obtain the necessary consent and approvals from the First Nation and, if applicable, the federal government for on-reserve projects. The applicant should provide evidence that demonstrates they have applied for the necessary consent and approvals (e.g., band council resolution, communication from the federal government) and the expected timing of these approvals. Applicants must provide a summary of concerns raised and mitigations	Phrasing here of "complies with" and "noncompliance" is misleading. This language appears to be too strong since “standards and best management practices under the Wildlife Directive” are not legal requirements. The Commission has recognized this in its decisions. Instead, the AUC should only indicate that applications should provide a rationale for any departure from the standards/best management practices..

discussed. For more information about the on-reserve land designation process, contact Indigenous Services Canada.”	
Other Notable Comments	
	A shorter, faster approval process for battery energy storage facility applications would be appropriate, since, in general, those projects are considered to have fewer or more minor potential impacts than larger wind/solar projects. CanREA also considers that reduced environmental requirements or expedited processing may be appropriate where an energy storage facility is sited on (a) land zoned industrial/commercial and (b) brownfields. CanREA members have questioned why thermal power plants are not subject to agricultural and soil assessments (Agricultural Information or Soils Components). Compared to wind farms, such projects could conceivably require the use of more agricultural land. CanREA members have also questioned why the AUC has not required air quality monitoring or Fire safety and explosion safety protocols for thermal power plants in Rule 007.