Proposed Standardized Setbacks for Renewable Infrastructure

The Alberta Utilities Commission (AUC) regulates the safe, reliable, and responsible supply of electricity in Alberta.

This document sets out the AUC's proposed standardization of acceptable setbacks for renewable infrastructure, including wind and solar projects. It explains the proposed setback ranges and why they are being proposed.

Background

Electricity is crucial to Albertans. It powers homes, schools, hospitals, businesses and industries. Stakeholders, including landowners, municipalities, local authorities, industry, developers, investors and others, have requested greater clarity and regulatory predictability to better support planning and investment in renewable infrastructure projects.

Clear setback ranges help landowners, municipalities, local authorities, industry, developers and others better understand what standards apply and what can reasonably be expected in the AUC's review process.

Review of renewable infrastructure rules

In 2024, the Minister of Affordability and Utilities requested that the AUC pursue standardized minimum and maximum setbacks for renewable energy infrastructure in the province. Standardized setbacks are the final step in the AUC's broader Rule 007: *Facility Applications* review and update. This review applies to utility-scale renewable energy infrastructure, not microgeneration such as rooftop solar.

AUC support for municipal setback decisions within the regulated ranges

Where a municipality sets setback distances in its land-use planning documents, and the setback distance falls within the approved minimum and maximum ranges, the AUC intends to accept and apply those setbacks in future facility application decisions in that municipality.

Proposed setback ranges

The AUC has developed proposed setback ranges based on industry practices, scientific studies, standards used by other regulators, and input from Albertans. The proposed setback ranges are now being shared for comment on any practical refinements before the standards are finalized.

The proposed setback ranges are summarized below. More detailed explanation and rationale for each range follows.

Solar project setback ranges (proposed)

Setback from:	Minimum	Maximum	Measured from
Dwellings, schools and hospitals	**120 metres**	**1,500 metres**	**Nearest dominant sound-emitting source**
Aerodromes	**1,000 metres**	**1,500 metres**	**Fenced project boundary**

These are proposed setback ranges only. Stakeholders are invited to provide comments on any distances chosen before the standards are finalized.

Wind project setback ranges (proposed)

Setback from:	Minimum	Maximum	Measured from
Dwellings, schools and hospitals	**800 metres**	**1,500 metres**	**Nearest dominant sound-emitting source**
Aerodromes	**2,000 metres**	**4,000 metres**	**Fenced project boundary**

These are proposed setback ranges only. Stakeholders are invited to provide comments on any distances chosen before the standards are finalized.

How to provide feedback

Stakeholders are invited to provide comments on the proposed standardized setbacks.

A virtual open house will be held on April 24 from 11 a.m. to noon to explain the proposed setbacks clearly, answer questions, and provide an opportunity for interested parties to provide feedback.

- **Register to attend here.**
    - Oral comments may be given at this open house.
    - Individuals who provide feedback are required to provide their contact information.
- **Written comments** should be submitted using the **Comment matrix template** and sent as an attachment to: engage@auc.ab.ca by **May 1, 2026.**

Comments should focus on practical refinements that may improve clarity, safety, predictability and fairness.

The rest of this information package provides a more detailed explanation of the standardized setback ranges, their purpose and AUC reasoning for the ranges.

A plain-language Q&A has been developed as an appendix for readers who would like further explanation of how the proposed setbacks work and why they matter. It provides answers to common questions and concerns about:

- Why standardized setbacks are being implemented.
- How setbacks operate.
- Safety and technical oversight.
- Human safety.
- Local authorities and community interests.

Finalized standardized setback ranges

After the AUC has reviewed and considered all feedback provided through the virtual open house and written submissions, the finalized standardized setbacks will be communicated.

Appendix A: Rationale for proposed setbacks

Understanding the proposed setback ranges

Minimum setbacks set a minimum safe distance from renewable infrastructure and technical requirements.

Maximum setbacks set an outer boundary from renewable infrastructure of what may reasonably be required, while allowing room for local authorities to choose standards within that range.

Minimum setbacks are based on safety and technical standards. They are intended to protect human health and help ensure the safety of children and adults living, learning, or working near renewable energy structures. They also provide clarity and predictability around regulatory requirements, support more efficient regulatory review, and assist landowners, developers and industry in investment and development analysis.

The AUC would not approve setbacks below the minimum where safety-based requirements or established technical standards would not be met. For example, the AUC would not approve a setback that would allow noise limits under AUC Rule 012 to be exceeded. Rule 012 sets out noise-control requirements and permissible sound levels for facilities under AUC jurisdiction.

Maximum setbacks are the outer limit of a setback range. They recognize that, beyond minimum safety requirements, other local priorities may also be considered. These may include local planning choices, development strategy, and reasonable concerns about how renewable infrastructure fits within a community.

Maximum setback ranges are not unlimited. They are intended to set the outer boundary of what may reasonably be required while balancing competing landowner interests, including quiet enjoyment and the development potential of private property.

The AUC would not approve setbacks beyond the maximum where the reasonable ability to develop or use private property would be unduly restricted.

1. Solar projects

A. Solar projects near dwellings and schools

Minimum setback: 120 metres

Maximum setback: 1,500 metres

Applies to:

- Dwellings and other infrastructure used for human habitation, such as homes, hospitals, nursing homes, and hotels.
- Schools.

Measured from:

- The nearest dominant sound-emitting source, such as an inverter-transformer station.

Why this range is proposed:

The minimum setback is based mainly on noise requirements in established AUC Rule 012, which deals mainly with noise limits for energy facilities. In most cases, a distance of about 120 metres from a typical inverter-transformer unit provides reasonable confidence that noise limits will be met. If more than one dominant sound source affects a dwelling, greater distance may be needed to account for cumulative effects.

The maximum setback reflects a 1.5-kilometre noise receptor review distance in Rule 012. Beyond that distance, noise from a solar project will generally be expected to comply unless site-specific conditions suggest otherwise.

B. Solar projects near aerodromes

Minimum setback: 1,000 metres

Maximum setback: 1,500 metres

Applies to:

- Registered aerodromes.
- Enregistered aerodromes.

Measured from:

The fenced boundary of the solar project.

Why this range is proposed:

The minimum setback is based mainly on glare and aerodrome safety. In most cases, a distance of about 1,000 metres provides reasonable confidence that glare impacts can be managed within the limits set under established AUC Rule 007, which sets out application and review requirements for power projects, including matters such as glare and other project impacts. The direction and orientation of solar panels in relation to an aerodrome also matters.

The maximum setback is intended to strike a balance between glare impacts and municipal discretion. Site-specific conditions that require a greater minimum safe distance in a particular case would still be assessed in an AUC proceeding.

2. Wind projects

A. Wind projects near dwellings and schools

Minimum setback: 800 metres

Maximum setback: 1,500 metres

Applies to:

- Dwellings and other infrastructure used for human habitation, such as homes, hospitals, nursing homes, and hotels.
- Schools.

Measured from:

- The nearest dominant sound-emitting source, such as a turbine.

Why this range is proposed:

The minimum setback is based mainly on noise requirements in established AUC Rule 012, which deals mainly with noise limits for energy facilities. In most cases, a distance of about 800 metres from a typical industrial wind turbine provides reasonable confidence that noise limits will be met. This minimum also roughly aligns with a quarter-section. If more than one dominant sound source affects a dwelling, greater distance may be needed to account for cumulative effects.

The maximum setback reflects the 1.5-kilometre noise receptor review distance already used under Rule 012. Beyond that distance, noise from a wind project will generally be expected to comply unless site-specific conditions suggest otherwise.

B. Wind projects near aerodromes

Minimum setback: 2,000 metres

Maximum setback: 4,000 metres

Applies to:

- Registered aerodromes.
- Known unregistered aerodromes.

Measured from:

- The fenced boundary of the wind project.

Why this range is proposed:

The minimum setback is based mainly on aerodrome safety. A distance of 2,000 metres is more than 10 typical rotor diameters and reflects a conservative starting point to address potential turbulence and pilot safety. This also recognizes that rotor diameters have increased over time and may continue to increase.

The maximum setback reflects existing federal aviation-related guidance and provides an outer range for consistent local planning.

Appendix B: Questions and answers

Participation and trust

1. Why is the AUC inviting comments if it has already consulted on setback distances?

The AUC is responsible for regulating electricity matters in Alberta in a way that is transparent, fair, and in the public interest. The invitation to comment is intended to help municipalities better understand the proposed framework and to provide thoughtful input that may refine and strengthen it before it is finalized. This consultation includes specific proposed distances to promote further, specific feedback.

2. What is the purpose of the AUC's virtual open house?

The open house is intended to explain the proposed standardized setbacks, the process followed, the information and data considered, and the approaches used in other jurisdictions facing similar responsibilities. It is also an opportunity to clarify roles, answer questions, avoid misunderstandings, and build rapport.

3. Will representative groups or other stakeholder bodies participate in this process?

The AUC is looking for feedback from municipalities and local authorities responsible for establishing standardized setback distances for development in their area. Representative groups and other stakeholder bodies are welcome to participate in this process. These groups can help bring forward local views, concerns, and recommendations, and they often provide useful context about how regulatory decisions may affect communities, landowners, and other stakeholders.

AUC regulatory role and why setback ranges are being established

4. What is the AUC's role in Alberta?

The Alberta Utilities Commission is the provincially appointed regulatory authority responsible for assessing proposed electricity projects in the public interest. Its reviews and decisions consider safety, reliability, siting, noise, environmental protection, and the overall benefit to Albertans.

5. Why is the AUC establishing standardized setback ranges?

As renewable development has grown, so have questions about where projects should be located and what setback distances are appropriate. Standardized setbacks are intended to provide greater clarity around development and regulatory requirements, and to help ensure that people living or working near renewable infrastructure are protected and respected.

6. How do standardized setbacks help landowners, investors, and developers?

Standardized setbacks provide greater clarity, predictability, and confidence about what standards apply and what is likely to be approved. That helps landowners, developers, and industry make better planning, investment, and development decisions.

7. Why has this process taken time?

These decisions affect safety, land use, local communities, and future development opportunities. The AUC has taken time to hear from stakeholders, review technical and scientific information, and consider practices in other jurisdictions so the proposed framework is thoughtful, fair, and workable.

How setbacks work

9. Why do setbacks matter to landowners, farmers, and rural communities?

Setbacks help determine where renewable infrastructure may be located and how it fits into rural communities. They can affect land use, nearby development, and the balance between development opportunity and respect for those living and working nearby.

10. How did the AUC decide the minimum setback distance?

Minimum setbacks are based on safety. Safety is a core AUC responsibility. In the past, the AUC has measured the minimum safe distance for projects on a case-by-case basis using its noise rule and other technical assessments. The minimum standardized setbacks reflect a conservative approximation of the closest distance renewable infrastructure can be located from people who live or work nearby while still meeting safety and technical requirements, based on the AUC's past experience. These considerations include protection of life, noise, light, and reasonable quiet enjoyment.

11. Why is there a maximum setback if the minimum setback is safe?

A maximum setback recognizes that, beyond minimum safety requirements, other local priorities may also be considered. These may include local planning choices, development strategy, and reasonable concerns about how renewable infrastructure fits within a community.

The maximum setback is not unlimited. It is intended to set the outer boundary of what may reasonably be required.

12. Can local authorities choose setback distances within the range?

Yes. The AUC intends to support local authority discretion to choose setback distances within the proposed standard ranges. Local authorities know their communities, local conditions, and local development needs. However, setbacks would not be approved below the minimum safety distance or above the maximum regulatory range.

Safety and technical oversight

13. What is the scope of the AUC's regulatory oversight in Alberta?

The AUC reviews proposed electricity projects in the public interest. Its role includes considering matters such as safety, reliability, siting, noise, environmental protection, and the overall benefit to Albertans. These responsibilities apply to renewable energy applications as they do to other electricity projects under the AUC's jurisdiction.

14. Why can’t a landowner decide on their own what gets built on their land?

Landowners have significant autonomy in decisions about their property. But when deciding whether to approve an electricity project, the AUC must also consider the project’s effects on neighbouring properties, local infrastructure, public safety, and the broader electricity system.

These are complex matters that require technical expertise and the application of legal, environmental, and regulatory requirements in a fair and consistent way.

15. Why are schools and hospitals specifically mentioned?

Schools and hospitals are specifically mentioned because setback distances are measured from structures where children and adults learn, receive care, or spend significant time. Clear setbacks help make sure those places are properly distanced from renewable infrastructure in a way that supports safety, health, and wellness.

16. Why do nearby landowners or residents have an interest in setbacks?

The location of a project may affect nearby people and properties. Setbacks help address those possible effects in a safe, structured, and consistent way.

17. Why are aerodromes specifically mentioned?

Aerodromes are specifically mentioned because renewable infrastructure can raise aviation-related considerations, including glare and turbine-related safety concerns. Clear setbacks help address those issues in a predictable way.

Environment and development

19. How do setbacks affect developers and industry?

Developers and industry need regulatory predictability to assess whether a project is viable and worth pursuing. Setbacks help determine where projects may be located, how dense infrastructure may be, and what risks or constraints apply. This information is important to sound investment and development decisions.

20. How do clear setback ranges support development and economic needs?

Clear setback ranges help landowners, municipalities, industry, and regulators better understand what standards apply and what projects can reasonably be expected to be approved. That reduces uncertainty, improves predictability, and helps projects move forward with greater confidence and timeliness.