

1. Should there be a standardized methodology or minimum information requirements for utilities' calculation of the estimated annual consumption at a customer's existing or new site and the calculation of the micro-generation unit's output? Please provide an explanation.

People with solar systems that use less than 200 amp service, like most homes and small businesses, should be allowed to send power back to the grid without extra restrictions, just like larger companies in Alberta can currently. What really matters for the grid is how much power you generate each day, not how much is produced over a whole year. Utilities already check this power flow when reviewing new systems, so we do not need another set of rules for these small setups.

Because these systems are naturally limited by their grid connection, allowing them to supply their own power and send any extra to the grid without needing detailed production forecasts would save time and reduce paperwork for everyone. It would also mean that solar companies and utilities would not have to spend as much time sizing most residential and small business systems. To be frank, this seems like an extra bureaucratic step that intentionally deters people from micro-generation, rather than encourages it.

In addition to this change, there should be a simple way for utilities to estimate how much electricity a customer uses and how much their solar system will likely produce. A standard process would speed things up, make it fairer, and reduce delays.

Right now, most solar companies work in different areas across Alberta. But since each utility has its own process, it is hard for installers to keep track of all the differences. This drives up their costs, which makes solar more expensive for Albertans. It also causes confusion for customers, since people talk to each other and do not always realize their utility might handle things differently than another one just down the road.

- **Please identify and justify the best historical timespan for accurately assessing a customer's historical energy usage (for existing sites).**

For micro-generators connected to services with a rating of 200 amps or less, dont. There is no need to assess future energy use. These systems should be allowed to operate with full self-supply and energy export capabilities. This approach simplifies the process and encourages wider adoption of small renewable energy systems, especially in residential settings. This kind of system only impacts how much power the major power companies make, but in no way further impacts anyone else in a negative way. The transmission costs are covered, and we create a much more robust energy system. If the government really wants to help reduce emissions, this will help.

For services greater than 200 amps, future energy use should be taken into account when determining system size. Projections can be based on historical electricity usage from the past one, three, or five years. They should also include any expected increases in consumption within the year following installation. Anticipated new loads like electric vehicle chargers or heat pumps can be supported using manufacturer specifications or standard load estimates. Again, it appears that the intent of this seems to be focused on how much we will impact the power plant's bottom dollar on electricity sales. If this is about helping encourage consumers to switch to solar, making it hard to pay off your power plant by "nickel and diming" the micro producers is not how to go about it.

- **Please identify and justify the best way for accurately projecting a customer's future energy usage (for new sites).**

For micro-generators connected to services with a rating of 200 amps or less, there is no need to assess future energy use. These systems should be allowed to operate with full self-supply and energy export capabilities. As above, the only group negatively impacted by this would be large power companies. This is net neutral to distribution companies, and 100% beneficial to consumers, and the government's desire to reduce emissions.

For services greater than 200 amps, future energy use should be taken into account when determining system size. Projections can be based on historical electricity usage from the past one, three, or five years. They should also include any expected increases in consumption within the year following installation. Anticipated new loads such as electric vehicle chargers or heat pumps can be supported using manufacturer specifications or standard load estimates. Historical data for these types of equipment may also be used to justify projected increases.

- **Please specify and justify the minimum level of proof that utilities should accept if a customer explains that they intend to increase their electricity consumption shortly after installing a micro-generation system (such as electric vehicle proof of purchase, etc.)**

For micro-generators on a 200-amp service or less, we recommend *not* requiring proof for future energy use, and instead enabling unrestricted self supply and export.

For micro-generators connected to a 200-amp service or less, we recommend that proof of future energy use not be required either. Instead, these systems should be permitted to operate with unrestricted self-supply and energy export. This approach reduces unnecessary administrative hurdles and supports the straightforward adoption of small-scale renewable energy systems.

For micro-generators on services rated above 200 amps, it is reasonable to request supporting documentation that demonstrates intent to increase future electricity usage. Acceptable forms of documentation may include a bill of sale, paid invoice, order confirmation, product registration, a contract deposit for major renovations, or issued permits. This should apply to items such as electric vehicles, charging stations, heat pumps, air conditioning units, electric stoves, and other energy-intensive equipment. In some jurisdictions, utilities are currently demanding more extensive documentation than necessary—such as requiring both a bill of sale and vehicle registration or insurance for an electric vehicle—which can place an undue burden on customers and delay system approvals. A more balanced and streamlined approach to documentation is recommended.

- **Please explain how a new micro-generation unit’s yearly energy output should be calculated, including accommodation for any partial shading or coverage of rooftop solar photovoltaic system.**

For micro-generators on a 200-amp service or less, we recommend *not* requiring calculations for yearly energy output, and instead enabling unrestricted self supply and export.

For micro-generators on a service over 200 amps should follow section 5.6. of Solar Alberta’s [Alberta Solar Business Code of Conduct \(https://solaralberta.ca/wp-content/uploads/2023/12/Alberta-Solar-Business-Code-of-Conduct-Nov2023.pdf\)](https://solaralberta.ca/wp-content/uploads/2023/12/Alberta-Solar-Business-Code-of-Conduct-Nov2023.pdf):

2. There are currently no specified mechanisms for monitoring the compliance of micro-generation systems with the Micro-Generation Regulation (i.e., the micro-generation system generates all or a part of, but not more than, the customer’s yearly electricity consumption) after the system is approved. How important is post-approval compliance monitoring to ensure micro-generators are remaining aligned with the Micro-Generation Regulation? Please provide an explanation.

This all undermines the purpose of Alberta’s Micro-Generation Regulation, which the AUC has stated is “in part, to promote self-supply by renewable energy resources and to simplify the regulatory process for micro-generators” (Decision 23412-D01-2018 & reiterated in 2023).

Post-approval compliance protocols would also undermine one of the primary current incentives for Albertans to become more energy efficient (reducing their electricity consumption currently enables them to generate additional credit).

Post-approval compliance boggs homeowners with more paperwork, and constant concerns about how much power they use and produce. Again, I fail to see any of the

groups/parties involved with micro-generation having any negative effects by allowing a much more flexible model on how much you can overproduce. The only party that would be negatively impacted is the current large power companies. If the government wants lower emissions, they need to prioritize the public production of power over companies like Enmax, who make most of their power by burning natural gas.

Focusing on sound approvals at the outset should proactively address any concerns there might be about more significant overproduction for micro-generators with as service over 200-amps.

The idea that the power pool will have “oversupply” of power in centralized areas is laughable. Every block has a transformer, and every line in that unit has a power rating. If their concerns are for future oversupply, then they need only begin those concerns when an individual block transformer is rated for. Currently, we would have to have every second house on the block with overproduction to even begin to worry about a load on the transformer, as all the neighbours are connected to the same unit balance. So even IF it was a concern, we need to make plans to expand our transmission system, not look for ways to prevent homeowners from producing more than they use. On top of that, battery systems and the homeowners inverter prevents production past the cap, which is ANOTHER step that has already been taken to prevent stressing the grid. If the concerns about grid stress is on a larger scale, that is even more laughable. Once the power makes it to the block transformer, that inverted power is balanced to the larger infrastructure of the community, then the grid at large. There is no way that we will produce enough solar power to overtake the grid, as the grid is literally a constant live system, and it just means that the gas power plants will throttle back.

I am told that the Government of Alberta, through Minister Neudorf, has repeatedly stated his intent to move on some demand-side management techniques. I believe this will address concerns about oversupply in the future and the AUC need not duplicate the Minister’s efforts.

- **Please identify and justify the best way to structure mechanisms for post-approval compliance monitoring, particularly regarding which party (or parties) should assume primary responsibility (such as the AUC, the AESO, utilities, etc.).**

There is no best way to structure mechanisms for post-approval compliance monitoring. To reiterate, the introduction of post-approval compliance protocols would create an additional and unnecessary burden on both micro-generators and the utilities (who would

almost certainly have to manage this), would fundamentally undermine the goal of Alberta's Micro-Generation Regulation, and would undermine one of the primary incentives for Albertans to become more energy efficient (generating additional credit by reducing their electricity consumption).

Policing homeowners who reduce consumption for personal or seasonal reasons (such as empty-nesters) is not a good use of the utilities' time and would not impact the overall health of Alberta's grid. Distributed micro-generation decreases demand on the grid and contributes to reducing the capital cost requirements for additional utility-scale power plant construction or expansion. Improvements to the initial system sizing process and clearer utility guidelines would be a more effective and less intrusive means of addressing any concerns about large micro-generators putting too much electricity onto certain sections of the grid at any one time. Not to mention, distribution companies dealing with this makes more sense, as they already charge solar-generators distribution fees.

3. What type of inverter de-rating, and associated evidence of this de-rating, would ensure that a micro-generation facility will not later increase its system capacity beyond the micro-generation system size approved by the utility? Please provide an explanation.

Inverter de-rating should be treated as a safeguard rather than a compliance enforcement mechanism; utilities and regulators should continue to rely primarily on service size constraints and the upfront interconnection approval process to manage grid impacts.

The introduction of post-approval compliance protocols such as this would create an additional and unnecessary burden on both micro-generators and the utilities (who would almost certainly have to manage this), would fundamentally undermine the goal of Alberta's Micro-Generation Regulation, and would undermine one of the primary current incentives for Albertans to become more energy efficient (generating additional credit by reducing their electricity consumption).

- **Should micro-generators be permitted to de-rate their inverters, subject to the previously described limitations? Please provide an explanation.**

Yes, micro-generators should be permitted to de-rate their inverters. This allows for future-proofing so that system sizes can be easily increased later when additional loads are purchased, like an EV, and would not require a costly full replacement of an inverter. Also, there are a limited number of products available and de-rating is often the only option for optimizing or maximizing a micro-generator's potential or adhering to various onsite electrical constraints.

4. The City of Medicine Hat’s micro-generation application process includes an initial step to determine a potential micro-generation system’s maximum permissible size, which has been found to reduce the number of full applications received. Would it be useful for the micro-generation application process to include an initial sizing determination phase, where a utility first determines a customer’s maximum permissible micro-generation system size before the customer makes a decision to proceed to a full application? Please provide an explanation.

Adding an initial step to determine a potential micro-generation system’s maximum permissible size is redundant if a process and standardized methodology is adopted. There is no need to add additional hoops for micro-generators to go through.

The goal of the Micro-Generation Regulation and the AUC should not be, as stated in this question, “to reduce the number of (micro-generation) applications received.”

If the AUC is looking for ways to simplify processes while still implementing size limitations, then they should look at the City of Lethbridge. Rather than adding an additional step, as Medicine Hat has done, they have a map that shows the maximum size for every home. This is helpful because systems can be designed and presented to clients knowing they will be approved. If the proposed system is going to exceed the maximum size listed, then simplifying the application process for justifying consumption and output would solve this issue. A public database that clients and contractors can access would be a much more logical step than having to jump through yet another hoop with the utilities.

If the AUC is concerned about consumer protection with respect to system size calculations, they should require all installers in Alberta to become members of Solar Alberta so that they can be held accountable to the [Alberta Solar Business Code of Conduct](#).

5. The AUC has heard from stakeholders that inverter standards for micro-generation systems often change, creating temporary misalignment with some AUC guidance documents and contributing to some confusion among micro-generation applicants. Would it be helpful for the AUC to facilitate a working group of relevant parties that reviews technical standards (for inverters, etc.)? Please provide an explanation.

The AUC in the community, we believe it would be logical for the AUC to routinely bring the utilities together to ensure better alignment on all matters. With respect to inverter standards specifically, it would be best to have a single accepted standard for all inverters, which would be communicated to utilities and jurisdictional inspection departments. CEC approval should be the only requirement.

- **If yes, how often should the working group meet? (e.g. monthly, quarterly, bi-annually). Please provide examples of technical requirements, other than inverters, that should be included in the discussions.**

The working group should meet once or twice a year.

6. Please identify, and provide justification and details for any other high priority micro-generation issues that should be addressed to ensure the effective and efficient functioning of the micro-generation landscape.

Aggregating sites that are on different feeders or with different retailers would be advantageous. In addition to these ideas and **enabling unrestricted self supply and export for Albertans with a 200-amp service or less**, we believe that Alberta should maintain the pillars of our Micro-Generation Regulation that have enabled Alberta to be the best province for micro-generators in Canada. Those pillars are:

1. **The One-to-One Ratio:** Enables Alberta micro-generators to receive a credit for the electricity that they put on the grid at a rate equivalent to the rate they pay when drawing electricity from the grid.
2. **Solar-Specific Pricing:** Enables Alberta micro-generators, like all power plants in the province, to switch from a higher electricity rate to a lower electricity rate when it is financially advantageous to them.

Year-End Credit Carry Over and/or Payout: Enables Alberta micro-generators to benefit from any credit they have earned in one calendar year or carry it into the next.