Hello AUC

I am a residential micro-generator and felt compelled to respond to a number of your questions which I am qualified to provide an educated response. Other questions I did not respond to. Thanks for your consideration.

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.

Answer 1:

Let's attempt to be as forward thinking as possible. The world is moving to an electrified future, meaning all consumers will be burning less fossil fuels and using more electricity generated by clean and renewable sources. Given this fact, it makes sense to allow smaller micro generators who are connected to the grid via a 200A or less service to install a system as large as the infrastructure can support and not be limited to their current consumption rates. A distributed generation system is the future! This approach allows for a more streamlined approval process, much less red tape and bureaucracy, and a higher supply of clean electricity to the grid during the day, supporting the reality of higher consumption in the years to come. The AUC should be looking to reduce costs of commissioning micro generator sites for all parties involved (consumers, installers, utilities, etc), and the easiest way to do this is using simple and streamlined approval processes rather than attempting to make the process more complicated. Residential micro generators already face a complex approval process, and if the province is looking to increase adoption then simplifying the process makes the most sense. The following sub questions become redundant if micro generators are allowed to install systems as large as their current infrastructure can handle. I can't imagine anyone wants to increase the complexity by adding more rules, regulations, audits, and hoops to jump through. In the end, that just causes costs to rise for everyone with little, if any, benefit.

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

- 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.

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.

Answer 2:

Allowing microgenerators on a 200A service or less to generate the maximum output their grid connection can support would remove the need for monitoring compliance. Post-approval compliance monitoring is not needed and will only add costs and administration for no benefit or gain. Take my own personal situation as an example. Since I had my solar array installed, I have added loads such as an air conditioner and electric vehicle. Although my system was designed to produce as much as I consume on an annual basis, I am now consuming more than my system generates. However, next year my 2 adult children may leave our household and live in their own residences which would lower my annual consumption of electricity, and potentially I will be generating more than I consume. As we move away from using fossil fuels, I may replace my furnace with a heat pump and add another electric car in the future, thus increasing my consumption again. As a society we are encouraging people to use less electricity by installing LED lighting, more energy efficient appliances, etc, and I suspect we want to continue encouraging this behaviour. As a micro generator I want to strive to lower my consumption by doing these things without the fear of punitive actions if my annual consumption is less than my annual generation. Again, it makes no sense to attempt to monitor all these fluctuations in annual demand as they will vary from year to year. Let's try to keep things as simple as possible! Less red-tape benefits all parties involved.

- 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.).

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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.

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

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.

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.

- 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.

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.

Closing remarks

I, alongside UTILITYnet and the Solar Club, urge the AUC to reaffirm its support for a regulatory environment that continues to foster innovation, customer choice, and grassroots energy development. Alberta's leadership in distributed solar is a model that other provinces admire. Let's continue to build on that momentum, not undermine it. Thank you for the opportunity to contribute to this important discussion for maintaining an open dialogue with industry and stakeholders. I look forward to continued collaboration to ensure that Alberta remains the best place in Canada to be a micro-generator.