Rule 024 and micro-generation application processes questionnaire

Questions:

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.

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

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

    c. 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.).

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

Direct Energy Response:
A standardized methodology is likely beneficial in assessing micro-generation size requirements. However, different methodologies are likely required for residential sites compared to commercial or industrial. Residential annual consumption can simply look at historical usage and for new builds, comparable homes. A three-year time frame may be helpful in case consumption varied significantly in one year from the norm, with recent changes that may significantly impact consumption highlighted and accounted for. For commercial and industrial sites, a multi-year average should be accounted for, but the distributor may also need to account for things such as increased production targets (depending on the business) that could have a significant impact on future demand. This is likely an area that will require further consultation with businesses that may have variable loads from year to year.

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.

    a. 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.).

Direct Energy Response:
It is important to note that the *Micro-Generation Regulation* clearly states that a "micro-generation generating unit" is "intended to meet **all or a portion of the customer's total annual energy consumption** at the customer's site or aggregated sites". Compliance monitoring should be put in place to ensure the unit is sized to produce electricity at or below a site's (or aggregated sites, as the case may be) annual consumption. Oversized units intended to export more energy to the grid than needed by the site are, by definition, no longer micro-generation sites and need to be treated as such. The Commission should establish a small upper boundary above annual consumption to account for small deviations that may happen year to year. Sites producing significantly more electricity than needed to match annual consumption place an undue burden on other customers, as detailed in our response to Question 6, and need to be brought in compliance with the intent of the *Micro-Generation Regulation*.

Compliance monitoring is best managed by the distributor, as they will have the consumption and export data for all micro-generation sites within their service territory, regardless of retailer. Meter data could be submitted to the AUC and evaluated on an annual basis to ensure compliance with the Regulation.

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.

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

Direct Energy Response:
Direct Energy views that inverter de-rating may be of use for sites looking to future-proof their micro-generation systems and account for future load growth as electrification increases and to avoid costly system upgrades. However, inverter de-rating should be used in conjunction with assessments of a site's maximum permissible size, and the compliance monitoring process described above.

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.

Direct Energy Response:
Direct Energy views that a maximum permissible size step would be beneficial as full visibility into the future of the asset is important. This may help account for future needs of the customer, as well as account for the distribution system's capability. Any excess system costs should not be subsidized by load customers not benefiting from an individual micro-generation system.

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.

    a. 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.

    b. If no, please suggest a different way that the AUC can keep abreast of changing technical standards.

Direct Energy Response:
Direct Energy is supportive of the establishment of a working group to maintain the relevance of the technical standards. Annual meetings would likely be sufficient.

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.

Direct Energy response:
Direct Energy believes that initiating a consultation on Rule 024 alone may not adequately address the broader issues surrounding micro-generation in Alberta. A more effective approach would be to align this review with, or conduct it following, a comprehensive government review of the *Micro-Generation Regulation*. To ensure a holistic and coordinated response, Direct Energy urges the AUC to elevate this matter to the Minister of Affordability and Utilities (MAU). This would facilitate a more thorough consultation that considers the interdependencies of micro-generation with other evolving market dynamics, including Bill 52 and the Alberta Electric System Operator's (AESO) Restructured Electricity Market (REM).

Under section 7(6) of the *Micro-Generation Regulation*, service providers for small micro-generation customers need to submit a generation credit summary to the AESO, where the total credit is net exports multiplied by the retail rate. The AESO must then compensate the service provider for that amount which is then recovered through the ISO tariff or fee, as determined by the Commission**.** There is currently no limit provided in the Regulation, or any other source, on what a solar retail rate can be. While numerous providers are offering a retail energy rate of 30 cents/kWh for micro-generation customers to utilize during net export months, there is concern that this rate could be pushed even higher with no recourse. These higher solar rates paid to micro-generation customers are recovered from the broader load base, leading to subsidization concerns – particularly if there is no limit placed on micro-generation-specific rates.

Direct Energy views that the intent of the *Micro-Generation Regulation* and the role of micro-generation-specific rates requires clarification by the MAU, given the potential for escalating cross-subsidization. Elsewhere in the market, the Commission has sought to avoid cross-subsidization between customers.[1] If higher export rates for micro-generation customers are in

[1] In Decision 27658-D02-2023, the Commission extensively reviews the issue of customers subsidizing other

fact an intentional feature rather than an unintended consequence, then clear guidelines and limits, if any, should be communicated to both customers and retailers.

Direct Energy notes that the website for Solar Club states that $14.6 million was paid for energy exported back to the grid in 2024 and the total customer payments increased by $6 million compared to 2023.[2] Given the continued growth of rooftop solar and in electrification, there will be an increase in payments collected through the ISO tariff. It may be in the AUC and the MAU's best interest to ensure these outcomes are intended sooner rather than later.

This determination must also be made with regard to time varying rates, as currently being contemplated under Bulletin 2025-07, along with shorter retail settlement periods as directed by the MAU and being progressed through the AESO's REM process. If time varying rates are implemented, most production from solar micro-generation customers will occur in the on-peak and super-peak periods. This impact will need to be considered if any changes to settlement and rate structure are contemplated in the *Micro-Generation Regulation*.

customers related to Maximum Investment Levels (MILs). In the decision, the Commission noted as a principle, MILs should be set at a basic level of service and not premium levels of service to avoid cross-subsidizing customers.

[2] https://solarclub.ca/solar-club-news/solar-club-members-celebrate-a-record-14-9-million-in-earnings/