AUC
Alberta Utilities Commission

# Rule 024 stakeholder comment matrix

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| **Comments from *(company/stakeholder name)*:** | Cogeneration Canada Ltd. (CCL)<br>Manufacturer / Integrator | **Contact name *(for companies)*:** | Thiago Avila, P.Eng., CFA (Director) |
| **Date [yyyy/mm/dd]:** | 2026/09/08 | **Phone:** | [redacted] |
| | | **Email:** | [redacted] |

**Instructions:**

1. Please download this document, save as "**Rule 024 matrix**" and fill out the demographic/contact information above.
2. Please review Bulletin 2026-10 and the blackline document for Rule 024: *Rules Respecting Micro-Generation.*
3. Please comment on the proposed information requirements below, including whether you agree that these information requirements should be included in an application under Section 4(3) or 4(3.1) of the *Micro-generation Regulation*. Please explain your position.
4. There are two open-ended questions included at the end of the document, including an opportunity to provide any additional information requirements that you believe should be included.
5. You can submit comments on as many or as few of the proposed changes as you wish. Blank boxes will be interpreted as neutral/favourable.
6. If a change from the blackline documents does not appear in the table below, it is considered administrative. You may provide comments on administrative changes in the general box at the end, if necessary.
7. While not all suggestions can be implemented, all relevant comments will be fully reviewed and considered.
8. Submit your response to engage@auc.ab.ca. In the email, please include the following subject line: **Rule 024 engagement**.

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Please review Sections 4(3) and 4(3.1) of the *Micro-generation Regulation:*

**Connection and operation**

**4**(3) Where in the opinion of the owner, concurred in by the Commission on application by the owner, the costs of connecting a particular micro-generation generating unit to the interconnected electric system are extraordinary, due to safety considerations, technological complexity or any other reason, the owner may require that the micro-generator directly reimburse the owner for the extraordinary portion of the costs.

(3.1) Where a micro-generator has changed the nameplate capacity of a micro-generation generating unit that is connected to the interconnected electric system and, in the opinion of the owner, concurred in by the Commission on application by the owner, the costs of maintaining the connection of the micro-generation generating unit to the interconnected electric system are extraordinary, due to safety considerations, technological complexity or any other reason, the owner may require that the micro-generator directly reimburse the owner for the extraordinary portion of the costs.

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| **Rule 024: New Section 6(2)**<br>**2) An application under Section 4(3) or 4(3.1) of the *Micro-generation Regulation* must include the following information requirements. If any of the below information is not available, the owner must explain why.** | | |
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| **Category** | **Proposed wording** | **Stakeholder comments** |
| Description of costs | c) A description of each cost, or portion of each cost, necessary to connect the micro-generation generating unit to the interconnected electric system which is, in the opinion of the owner, extraordinary.<br><br>(i) Include the item or category of items associated with each cost. The item or category of items may include, for example, specific equipment, equipment upgrades, studies, or protective devices.<br><br>(ii) For any equipment upgrades, please indicate if existing equipment will be salvageable. If yes, please ensure the salvage value of the existing equipment is deducted from the extraordinary costs. If there is a reason why the salvage value should not be deducted from the extraordinary costs, please explain.<br><br>(iii) For any included cost that does not have a finalized cost estimate, please indicate when a finalized cost estimate is expected. | CCL supports including s.6(2)(c)(i)–(iii) and the salvage-value deduction in (ii). We recommend four additions so that the description allows the Commission to test whether a cost is in fact extraordinary rather than merely itemised. We first set out the context for small synchronous units, because the cost that matters is often misdescribed.<br><br>Context. The interconnection protection functions required of a synchronous mCHP unit are the same as those required of a PV inverter: the unit must not island, must cease to energise on over- and under-voltage and over- and under-frequency, and must be provided with a utility-accessible disconnect at the meter. Synchronising is performed internally by the CHP package's own controller and generator breaker. The cost difference between a PV connection and a synchronous mCHP connection of the same size therefore does not lie in the protection functions; it lies in commissioning practice. A certified PV inverter is accepted on its certification. A synchronous unit is required to undergo the owner's witnessed Interconnection Protection Settings and Commissioning (IPSC) test, in which a relay test set injects voltage and frequency into the unit's controller to prove the trip settings and timing. That test exercises only the controller hardware and its software. For a packaged mCHP product both are identical from one installation to the next – same controller, same certification, same firmware. Repeating a witnessed relay-test-set IPSC at every site, with owner staff in attendance and a third-party test technician, is expensive and disproportionate for a microgeneration unit, and it is the item most likely to be presented as an extraordinary cost for this class of unit.<br><br>1. Source of the requirement. For each item, the owner should identify the technical requirement that gives rise to it (document title, section and version, e.g. the owner's microgeneration or distributed-generation interconnection requirements), and state whether that requirement is applied to every generating unit of the same technology class and size category. A cost that flows from a requirement applied to every unit of a recognised class is an ordinary cost of connecting that class, not an extraordinary cost attributable to a particular customer.<br><br>2. Incremental cost only. The description should confirm that each item is the incremental cost caused by the connection, net of any cost the owner would incur in any event, any cost recoverable through the owner's tariff, and any system benefit accruing to other customers (for example, a recloser or protection upgrade that improves the feeder for all users). Where a shared benefit exists, the owner should propose an allocation.<br><br>3. Alternatives considered. For each item, the owner should state what lower-cost alternatives were evaluated and why they were rejected. For a witnessed IPSC test in particular, the owner |

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| | | should state whether it considered accepting a design-level (type) witnessed test of the generating unit model and controller firmware version – witnessed once, with the test report supplied for each subsequent installation of the same model with unchanged firmware – in lieu of a site-witnessed test, together with a functional site verification by the installer (trip verification through the controller's test function and operation of the utility disconnect). This is the same principle on which certified inverters are accepted today, and it addresses the site-specific residual without repeating a test whose result cannot differ from site to site.<br><br>4. Basis of estimate. Each cost should carry its estimate class (vendor quote, unit-rate estimate, allowance) and contingency. Under (iii), where an estimate is not final, the owner should also state the range within which it expects the final figure to fall, so that the customer can make a decision on a bounded number.<br><br>Reason. CCL's units are packaged synchronous natural-gas mCHP units of 20–150 kW that use the same controller across the model line. Where the controller is certified to the applicable standard and its software is unchanged from a previously witnessed test, a repeat witnessed test adds cost and schedule without adding protection. CCL asks that Rule 024 (or the Guideline) provide that an owner may not recover as extraordinary the cost of a repeat witnessed IPSC test for a generating unit model and controller firmware version for which a prior witnessed test report is available, unless the owner identifies a site-specific reason. This comment is made in anticipation: CCL has not yet been the subject of a s.4(3) application, but the per-site witnessed test is the principal cost and schedule differentiator between a PV and a synchronous mCHP connection of the same size. |
| Comparative analysis | d) For each of the costs provided in (c), please provide a comparative analysis that explains why the owner considers these costs to be extraordinary, for example, due to safety considerations, technological complexity or any other reason. This analysis must include any supporting evidence that the owner considers relevant and may address the following:<br><br>(i) The costs and types of costs to connect the average micro-generation generating unit;<br><br>(ii) The costs and types of costs to connect the average micro-generation generating unit of the same size category (small <150 kW or large >150 kW);<br><br>(iii) The costs and types of costs to connect comparable micro-generation generating units (i.e., similar nameplate capability, | CCL supports a comparative analysis requirement but considers the proposed wording likely to produce the wrong answer for any non-solar unit unless three changes are made.<br><br>1. Make the like-for-like comparator mandatory, and define it. Items (d)(i) and (d)(ii) compare the unit with the "average" microgeneration unit, which in Alberta is an inverter-based PV system. Comparing a synchronous CHP unit, a biogas engine or a small hydro unit with the average PV connection will always show additional commissioning and testing cost (the witnessed IPSC test described under (c) above), and would therefore classify the ordinary cost of an entire technology class – one the Regulation expressly recognises in s.1(1)(l)(ii)(B) – as extraordinary. Item (d)(iii) is the correct comparator and should be required ("must address") rather than optional ("may address"). "Comparable" should be defined as the same technology class (inverter-based or synchronous/rotating), the same size category, and the same connection voltage; geographic and site-specific factors are then the legitimate residual that can make a cost extraordinary.<br><br>2. Require the owner to state its ordinary-connection baseline for that class. The owner should set out what it treats as the ordinary scope and cost of connecting a unit of the same technology class and size category, and show that the disputed items are in excess of that baseline. If the owner has never published such a baseline for the class, that should be stated, and the |

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| | geographic area, safety, technical, or other reasons);<br>(iv) Any specific characteristics of the micro-generation generating unit that contribute to the technological complexity of connecting the micro-generation generating unit to the interconnected electric system;<br>(v) Any factors related to the connection of the micro-generation generating unit that may impact the safety and/or reliability of the interconnected electric system, along with any implemented or planned mitigation strategies; and<br>(vi) Any other information the owner considers relevant to the Commission's consideration. | Commission should treat the absence of a published baseline as weighing against a finding that the cost is extraordinary.<br><br>3. Tie "technological complexity" and "safety" to site-specific facts. Items (d)(iv) and (d)(v) should require the owner to identify the specific site or feeder characteristic (fault level, protection coordination, hosting capacity, islanding risk) that makes the connection more complex or less safe than a connection of the same class elsewhere on its system, with the study or analysis that supports it. Generic statements that a technology class is more complex than PV should not suffice.<br><br>We also recommend adding an item (vii): a statement of what the same unit at the same site would be charged under the owner's small-scale generation or distribution-connected generation interconnection process, with reasons for any difference. The purpose of the microgeneration stream is to simplify connection for small demand-matched units; the extraordinary-cost mechanism should not produce a result that is worse for the customer than the stream the Regulation was intended to simplify. |
| **General** | | |
| Section 6(1) of Rule 024 states that "the owner shall file a completed notice of dispute…within 14 days from the date in which the owner finalizes its cost estimate". The Commission is aware that the cost estimates for each item or category of items associated with the connection of a micro-generation generating unit may be finalized at different times in the connection process. Please comment on the optimal timing for an owner to submit an application under Section 4(3) or 4(3.1) of the *Micro-generation Regulation*. | **Stakeholder comments:**<br>CCL's position is that the timing question should be answered in two stages, because the current single trigger ("within 14 days from the date the owner finalizes its cost estimate") is open-ended and places the entire timing risk on the customer.<br><br>Stage 1 – early notice of intent. At Form A acceptance under s.3(3), or within 30 days of it, the owner should be required to notify the customer in writing whether it anticipates seeking concurrence for extraordinary costs, identifying the category of each anticipated item and a preliminary range. This is not the s.4(3) application; it is a disclosure. It allows the customer to decide whether to proceed, redesign (e.g., different protection scheme, export limit, reduced size) or withdraw before committing engineering and equipment cost. An owner should not be permitted to seek recovery for an item it did not identify at least by category at this stage unless the need arose from a later change by the customer.<br><br>Stage 2 – the s.4(3) application. The Form B filing should be made within 14 days of the owner finalizing the estimate for the disputed items, as at present, but subject to a long-stop: no later than a fixed period after Form A acceptance (we suggest 90 days for small units and 180 days for large units) unless the customer agrees in writing to an extension. Where only some items are final, the owner should file on the final items and identify the outstanding ones with expected dates under s.6(2)(c)(iii), rather than withhold the application until every estimate is complete. The Commission's concurrence can be conditional on the final figure falling within the stated range. |

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| | Two further points. First, connection should not be held hostage to the dispute: for units whose connection is otherwise ready, the owner should connect on the customer's undertaking to pay the ordinary connection cost, with the disputed extraordinary portion held in escrow or payable on the Commission's determination. Second, Rule 024 should give the customer an express right to file a response to the Form B within a stated period (14 days), rather than leaving this entirely to the process the Commission sets under s.7(1); the customer is the party who will pay and is best placed to identify alternatives the owner has not considered. |
| Please provide any additional information requirements that should be included in an application under Section 4(3) or 4(3.1) of the *Micro-generation Regulation*. Please explain your position. | **Stakeholder comments:**<br>CCL recommends the following additional information requirements in an application under s.4(3) or 4(3.1):<br><br>1. The owner's qualification determination. A statement of how the owner determined that the unit qualifies under Regulation s.1(1)(h)(ii): the consumption figure used and its source, the production figure used and the method by which it was derived (for a dispatchable unit, the capacity factor assumed and whether the applicant's declared operating mode and export limit were accepted), and, for a CHP unit, the site's peak useful thermal demand as stated in the notice (from gas bills and engineering assessment) and whether the owner took it into account. Reason: the size the owner has accepted or imposed drives the protection scope, the unit's efficiency and therefore the cost; the Commission should see both decisions together. This is particularly important where the owner has required a reduction in nameplate before the application.<br><br>2. Generator type and protection provided by the applicant. The generating unit's technology class (inverter-based or synchronous), its on-board interconnection protection and the standard to which it is certified, and any export-limiting or reverse-power scheme proposed by the customer. Reason: these determine whether the owner's proposed protection items are necessary at all.<br><br>3. Chronology of technical requirements. Every technical requirement communicated to the customer, with the date and the document and version from which it derives, and identification of any requirement that changed after Form A acceptance. Reason: costs arising from requirements introduced after acceptance, without a change by the customer, should not be recoverable as extraordinary.<br><br>4. Customer communications. Copies of the owner's communications to the customer regarding sizing, technical requirements and anticipated costs, and the date on which the customer was first told, by category and range, that extraordinary costs might be sought. Reason: aligns with the proposed s.6(2)(b) date requirement and allows the Commission to assess whether the customer had a fair opportunity to redesign or withdraw. |

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| | 5. Alternatives and their cost. The lower-cost alternatives the owner considered for each item and the estimated cost of each. Reason: as set out under s.6(2)(c) above.<br><br>6. Precedent connections. The number of units of the same technology class and size category the owner has connected in the preceding five years, and whether it sought extraordinary-cost recovery for any of them. Reason: a cost sought from every unit of a class is evidence that it is ordinary for that class.<br><br>7. Customer's position. Confirmation that the customer has been given a copy of the complete application (not only the Form B) at the time of filing, and any written position the customer has provided. |