

COUNCIL ORDER NO. 2025-01

BEFORE THE ADMINISTRATIVE TRIBUNAL OF THE ELECTRICAL SUB-COUNCIL

(the "Tribunal")

ON MARCH 28, 2025

IN THE MATTER OF the Safety Codes Act, Revised Statutes of Alberta 2000, Chapter S-1 (the "Act");

AND IN THE MATTER OF the order (the "Order") issued to Solar Ninjas Energy Solutions (the "Appellant") by Parkland County (the "Respondent") on January 8, 2025, regarding the solar installation installed at in Parkland County, Alberta;

UPON REVIEWING AND CONSIDERING the evidence named in The Record, including written submissions of the Appellant and Respondent; and UPON HEARING the testimony of the parties at the hearing;

IT IS HEREBY ORDERED THAT the Order is REVOKED.

Appearances, Preliminary, Evidentiary, or Procedural Matters:

- 1. The hearing for this matter was conducted by virtual means.
- 2. At the commencement of the hearing, the Coordinator of Appeals confirmed the subject of the appeal as the Order and confirmed the names of those in attendance:
 - a. Appearing for the Appellant, the Tribunal heard from:
 - Principal of Solar Ninjas;
 - ii. Partner at Solar Ninjas;
 - iii. Professional Engineer;
 - b. Appearing for the Respondent, the Tribunal heard from:
 - i. Safety Codes Officer;
 - c. Facilitating the hearing on behalf of the Safety Codes Council:
 - i. Legal Counsel for the Tribunal;
 - d. Attending as observers for the hearing:



- **3.** The Coordinator of Appeals then introduced the Chair of the Tribunal (the "Chair"), and turned the hearing over to them.
- 4. The Chair called the hearing to order and introduced the other Tribunal members:
- 5. The Appellant and Respondent confirmed there were no objections to any members of the Tribunal, and that the Safety Codes Council in general and the Tribunal in particular had jurisdiction to hear and decide the appeal. The Tribunal also confirmed they had jurisdiction to hear and decide this appeal.
- **6.** The Chair then explained the process of the hearing and advised of the list of the written material before the Tribunal, consisting of the documents listed below in **The Record** (see paragraph 7). The Appellant and Respondent confirmed that there were no objections to any of the material submitted to the Tribunal.

The Record:

7. The Tribunal considered, or had available for reference, the following documentation:

<u>Item</u>	<u>Description</u>	<u>Date</u>
1	Notice of Appeal	February 3, 2025
2	Order	January 8, 2025
3	Appellant Brief	March 12, 2025
4	Respondent Brief	March 13, 2025

Issue:

8. This appeal concerns the interpretation of "readily accessible" under Rule 84-024(1) of the Electrical Code and its application to the location of an alternating current disconnect for a solar installation.

Positions of the Parties:

Appellant

From the Appellant's submissions and testimony, the Appellant's position is summarized as follows:

9. It is the Appellant's position that requiring the alternating current disconnect to be located externally so as to be accessible to the supply authority is contrary to proper code interpretation, industry best practices, and the supply authority's own requirements.

Respondent

From the Respondent's submissions and testimony, the Respondent's position is summarized as follows:

10. It is the Respondent's position that "readily accessible" under the Electrical Code requires the disconnect be accessible specifically to the supply authority personnel without entering the building or structure, and therefore a disconnect must be installed in an exterior location.

Summary of the Agreed Upon Facts:

- **11.** The facts of this appeal are not contested. Rather, it is the interpretation of the Electrical Code that is at issue. The parties agree that the following facts are correct.
- **12.** The Appellant installed a rooftop solar photovoltaic (PV) system utilizing alternating micro inverters (the "Installation") on the Property. The Installation has solar panels installed on the roof and is connected on the consumer load side of the main panel. The Installation does not have a supply side connection.
- **13.** The Installation involved wiring two separate PV circuits with the wiring feeding to an interior panel board. Lockable circuit breakers are installed at the consumer disconnect location, which is inside the home. There is also a disconnect point on the roof.
- **14.** The Appellant obtained a permit from the Respondent for the Installation on September 27, 2024. This permit was issued with no conditions or terms for the Installation.¹
- **15.** On October 29, 2024, the Respondent issued an inspection report indicating that the Installation had failed because an alternating current disconnect was required to be "readily accessible" as per section 84-024 of the Electrical Code.²
- **16.** On January 8, 2025, the Respondent issued the Order requiring an alternating current disconnect to be installed that is "readily accessible... for the supply authority to disconnect the alternating current power output from all connected electrical power production sources."⁴

Summary of the Evidence Provided On Behalf of the Appellant:

Written submissions on behalf of the Appellant:

17. The Appellant submits that, given that previous installations of the same type in Parkland County were issued permits with conditions requiring the alternating current disconnect to be accessible to the supply authority, they sought clarification from the Provincial Electrical Administrator regarding the interpretation of Rule 84-024. The Provincial Electrical Administrator responded that their initial impression is that the Electrical Code did not require the disconnect be accessible to the supply authority, and interprets rule 84-030, which states that the supply authority disconnecting is intended to allow the supply authority a single point of access, to mean the main breaker so long as it is lockable. The Provincial Electrical Administrator finishes the email by advising that installers work

¹ The Record, page 30

² The Record, page 31

³ The Record, page 36

⁴ The Record, page 26

⁵ The Record, page 21

- with their "local AHJ [authority having jurisdiction]" regarding individual installations as they are the ones doing the actual inspections and review.
- **18.** The Appellant indicates in their timeline that, following the receipt of this email from the Provincial Administrator, they reached out to the Respondent SCO regarding the issue and were "rebuffed".⁶
- **19.** In November, following this failed inspection, the Appellant reached out to the Respondent SCO for "discussion, education, attempt at resolution" and that the Respondent SCO was unwilling to participate.⁷
- 20. The Appellant submits to the Tribunal that the Respondent incorrectly issued the Order due to an incorrect interpretation of "readily accessible" under the Electrical Code. The Appellant's position is that the Respondent is relying on the definition of "accessible" as a foundation for interpreting "readily accessible", which is incorrect. The definition of "accessible" under the Electrical Code is "admitting close approach because the equipment is not guarded by locked doors, elevation, or other effective means", whereas the definition of "readily accessible" is "capable of being reached quickly for operation, renewal, or inspection, without requiring those to whom ready access is a requisite to climb over or remove obstacles or to resort to portable ladders, chairs, etc." The Appellant then references Appendix B of the Electrical Code which states that, for the purposes of Rule 84-022, the consumer electrical service disconnect location inside the house is normally acceptable for the purposes of being readily accessible. It is the Appellant's position that the definition of "readily accessible" is clear on its own and does not evolve from or depend on the definition of "accessible."
- **21.** The Appellant references Appendix B of the Electrical Code regarding Rule 84-022, which states that "the supply authority disconnecting means is intended to allow the supply authority a single point of access to simultaneously isolate one or more electric power production sources on the premises. The main service box, or the equivalent, is normally used to provide this function." ⁹
- **22.** The Appellant submits that the Respondent's reasoning that the intent of the disconnect being for supply authority personnel is not a permissible rationale. The Appellant also submits that the supply authority has "explicitly denied this being part of their requirement." ¹⁰
- **23.** The Appellant also submits that the Installation is solely on the consumer load side and that there is no supply side connection. ¹¹ The Appellant submits that, because of this, there is no additional safety concern that is addressed by requiring this circuit breaker or disconnection means between two other circuit breakers. ¹²
- **24.** Finally, the Appellant submits that it is best practice province wide to install rooftop circuit breakers and feed directly in an interior panel board and then installing a breaker lock device on the PV circuit breakers. The Appellant submits that this is the primary wiring practice that has been accepted in other AHJs and supported by Alberta Municipal Affairs.

⁶ The Record, page 11

⁷ The Record, page 11

⁸ The Record, page 15

⁹ The Record, page 13

¹⁰ The Record, page 15

¹¹ The Record, page 15

¹² The Record, page 16

Evidence on behalf of

- 25. Thomas is the of Solar Ninjas.
- informed the Tribunal the requirement to install an additional exterior disconnect on a microgeneration site for supply authority personnel use is unnecessary and unsupported by the Electrical Code. He informed the Tribunal that the rooftop disconnects in the Installation meet all applicable codes and standards and particularly meets the requirement for readily accessible disconnects under section 84 of the Electrical Code.
- 27. informed the Tribunal that other AHJs have found the installation acceptable. He also references the Provincial Electrical Administrator's email as confirming that they agree with the Appellant's interpretation of "readily accessible."
- a misinterpretation of the code's language. emphasized that the definitions of "accessible" and "readily accessible" are distinct and independent, and that just because an installation is not "accessible" does not, by definition, mean that it is inaccessible so as to be non-compliant with the Electrical Code.
- 29. In response to a question from the Tribunal, confirmed that the issued permit for the Installation did not have a listed condition. He also confirmed that they reached out to the Respondent to discuss the Order to avoid an appeal but were unsuccessful in coming to a resolution.
- also confirmed for the Tribunal that there were a few previous projects where the issued permit had this listed condition and therefore they had tried to discuss it with the Respondent for previous installations, however it was not on the permit for this Installation.
- also clarified for the Tribunal that the supply authority for the Installation is Fortis, and that a response from Fortis was received on September 18, 2024, indicating they did not need this extra disconnection point for their purposes and that this correspondence was forwarded to the Respondent.

Summary of the Evidence Provided On Behalf of the Respondent:

Written Submissions made on behalf of the Respondent:

- **32.** The Respondent's position is that the Installation is not compliant with section 84 of the Electrical Code. The Installation failed upon inspection on October 29, 2024, and the Order was issued on January 8, 2025. The Respondent submits that on January 9, 2025, the Order was reviewed by the Provincial Electrical Administrator under section 49(5) of the *Act* and the Order, while varied for clarification, was upheld in substance by the Administrator.¹³
- 33. The Respondent submits that the scope of section 84 of the Electrical Code applies to "a power production source interconnected with a supply authority" and that the disconnect shall be "readily

¹³ The Record, page 36

accessible." ¹⁴ The Respondent submits that "readily accessible" means that the supply authority personnel need to be able to de-energize the supply authority equipment prior to working on it, and as such the disconnect needs to be in an exterior location, "ideally in proximity to the supply authority equipment" to allow personnel to open the disconnect without entering the building or structure. The Respondent submits that the locked door of a building or structure is an obstacle that must be removed by a party other than the supply authority, and therefore the panel inside the building is not readily accessible. ¹⁵

- **34.** Specifically, the Respondent states that "accessible" includes in its definition the equipment not be "guarded by locked doors, elevation, or other effective means" and that the locked door of a building renders the equipment "inaccessible by definition." The Respondent submits that if a piece of equipment is "inaccessible" then it cannot be "readily accessible." ¹⁶
- 35. The Respondent also submits that there has not been a registered or published document from a supply authority stating the disconnect is not required, the Electrical Code requirements have not been varied, and that the supply authority does not have jurisdiction over the Electrical Code interpretation and application.¹⁷

Evidence on behalf of

- 36. Flynn (" is an SCO with the Respondent and is the SCO that issued the Order.
- 37. In the informed the Tribunal that the Order was issued and then was affirmed by the Electrical Provincial Administrator with Municipal Affairs through the review process.
- 38. submit to the Tribunal that section 84-000 establishes the scope and intent of the power production source requirement. That section confirms that while installations must comply with Part I of the Electrical Code, they are also subject to the emergency access conditions outlined in section 84.
- 39. Specifically, informed the tribunal that a disconnect located behind a locked door, or otherwise obstructed from quick access, fails to meet the definition of "readily accessible" as it cannot be reached without the removal of obstacles. In made the point that coming back to the definition of "accessible", if a disconnect is not accessible by a lockbox then that installation is not accessible under the Electrical Code. It contends that if a disconnect is inaccessible, such as being located behind a door or an obstacle that must be moved, then by definition it cannot be "readily accessible" which requires the disconnect to be reached quickly without removal of an obstacle. Informed the Tribunal that a locked door is included as an obstacle.
- acknowledged to the Tribunal that the accessibility to supply authority personnel is not expressly mandatory but that the Electrical Code indicates a clear expectation that the disconnect be accessible to supply authority staff. He maintained that section 84 contemplates a disconnect installed for the benefit of the supply authority system, and that such disconnect must meet the accessibility standards articulated within the Electrical Code.

¹⁴ The Record, page 37

¹⁵ The Record, page 38

¹⁶ The Record, page 38

¹⁷ The Record, page 38

41. informed the Tribunal that this Appeal is the first time he has had any pushback about installing a disconnect out of the one hundred permits issued and closed as compliant.

Findings of Fact:

42. As the facts of the Installation are not at issue in this matter, the facts are accepted as they are described in the agreed upon facts. The issue at hand is in regards to the interpretation of the Electrical Code requirements, which the Tribunal has analyzed below.

Reasons for Decision:

- **43.** On an appeal such as this, the powers of the Tribunal are set out in subsection 52(2) of the *Act*, the relevant excerpt is reproduced below:
 - 52(2) The Council may by order
 - (a) Confirm, revoke or vary an order.... And as a term of its order may issue a written variance with respect to any thing, process or activity related to the subject-matter of the order if in its opinion the variance provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by this Act;
- **44.** This matter arises from a disagreement between the Appellant and the Respondent concerning whether an exterior disconnect device, accessible to supply authority personnel, is required for a residential PV system installation.

Definitions of "Accessible" and "Readily Accessible"

- **45.** The Electrical Code distinguishes between the terms of "accessible" and "readily accessible" and does not define one as a subset or component of the other. This distinction is deliberate. As per section 0 of the Electrical Code, where the drafters of the Electrical Code intended for one definition to incorporate another, this is expressly indicated such as in the case of nested definitions. That is not the case here; "accessible" and "readily accessible" are separate and distinct definitions. "Readily accessible" is not nested under "accessible", therefore, it must be viewed as a distinct definition in its own right. Because they are distinct definitions, they are not interchangeable.
- **46.** "Accessible" is generally understood in the Electrical Code to mean not behind locked doors or physical obstructions, while "readily accessible" includes requirements such as being quickly reachable without needing tools, ladders, or key access. The Tribunal finds that these are two separate and distinct terms, and one can be met without necessarily meeting the other.

Whether the Disconnect is Required Under the Code

- **47.** Having established that "accessible" and "readily accessible" are distinct requirements, the Tribunal must now address whether, based on the Electrical Code and the definitions within it, the Installation is non-compliant absent the exterior disconnect.
- **48.** Rule 84-024 of the Electrical Code specifies that a disconnecting means must be "readily accessible" but does not mandate a specific location such as the exterior of the building or adjacent to the meter. There is no requirement in the Electrical Code that a disconnect be available to utility personnel

specifically, rather, the Electrical Code is concerned with accessibility in general, that is, the location and installation of the disconnect, not accessibility *by whom*. The test is whether the disconnect can be reached without undue effort or specialized equipment, not whether it is externally available to utility staff. Had the Electrical Code intended to impose that latter requirement, it would have stated so explicitly.

- **49.** The parties have agreed that the main service panel of the Installation is located within the residence. A breaker located in the main panel inside the home is recognized under the Electrical Code as a valid form of disconnecting means, and there is no indication in section 84 that a supplementary device is required. In the present case, the panel-mounted breaker of the Installation satisfies the Code's definition of a "readily accessible" disconnect, and the Tribunal finds it to be code-compliant.
- **50.** The Tribunal also notes that although some utilities or jurisdictions have adopted guidelines on expectations for solar installations, Parkland County has not issued a formal directive or published interpretation to that effect. The absence of a formal requirement must be resolved in favour of the plain reading of the Electrical Code.

The Role of the Safety Codes Officer and Permit Conditions

- **51.** The Tribunal does acknowledge that Safety Codes Officers may place reasonable conditions on a permit to address location-specific or context-specific concerns. The installation of an exterior disconnect for utility access could constitute a reasonable condition. The rationale that such a disconnect improves clarity and safety for utility responders is, in principle, reasonable.
- **52.** However, the absence of such a condition on the issued permit is decisive. Permit conditions must be clearly communicated and documented. In the present case, no such condition was attached to the permit issued to the Appellant. The Tribunal finds no evidence that the requirement for an additional disconnect was ever formally imposed as a condition of the permit for the Installation, nor that it was removed at a later stage.
- **53.** In the absence of a specific condition to that effect, the only standard against which the installation can be assessed is compliance with the Electrical Code. Because the Installation meets all applicable code requirements, the Tribunal finds that the permit holder cannot be found in non-compliance for failing to meet a condition that was never imposed.

Safety Considerations

- **54.** Finally, the Tribunal turns to the issue of safety. The primary safety concern expressed by the supply authority involves the load-side terminals of the revenue meter. The Tribunal observes that in residential electrical systems without solar generation, the internal panel is considered adequately accessible and safe under the Electrical Code. The Tribunal does not see a reason to treat an identically configured solar system differently especially in the absence of batteries or high voltage equipment where additional isolation would be warranted.
- **55.** The Electrical Code has mechanisms in place to ensure safe disconnection of rooftop microinverters and other system components. These requirements for anti-islanding, combined with the utility's common practice of removing the utility meter, further mitigate safety concerns that might otherwise necessitate an external disconnect. The Tribunal finds no basis to conclude that the lack of an external disconnect in this case creates a unique or material safety concern.

Observations Regarding Process

- **56.** While the Tribunal finds that the Installation complies with the applicable provisions of the Electrical Code, it must also comment on the process by which this dispute arose.
- 57. The Tribunal notes that the Appellant was aware, well before the Installation was completed, that the SCO expected an exterior disconnect. The Appellant references previous permits that had this noted condition and repeated efforts to "educate" the SCO on their perspective. In this case, the Appellant deliberately chose not to follow that expectation and instead appears to have made a calculated decision to proceed with a system configuration that excluded the exterior disconnect. The Tribunal agrees with the Appellant that the Installation, as built, is compliant with the Electrical Code and that a disconnect at the exterior was not required under either the Electrical Code nor any condition placed on the permit. However, the decision to proceed in contradiction without reaching a clear resolution beforehand was not the most constructive approach. It gave the appearance of an attempt to provoke a conflict or force reconsideration of a policy, rather than foster collaboration. This decision was not conducive to cooperative problem-solving and created unnecessary friction.
- 58. At the end of the day, if an SCO implements a condition on a permit they have the authority to expect that condition to be followed. In this Installation, there was no stated condition and therefore the Order must be revoked. However, evidence of previous attempts to fight this condition or "educate" the SCO indicates that this issue has been ongoing and raises concerns about the respect for the role of the Respondent and the SCO in ensuring consistent enforcement within their jurisdiction.
- 59. That said, the Tribunal also finds that the failure of the SCO to clearly and consistently communicate with the Appellant was a shortcoming in this matter. The Record shows that the Appellant made multiple attempts to engage with the Respondent to resolve this issue, however those efforts were met with minimal response from the SCO. There is little evidence that the SCO provided meaningful opportunities for dialogue, explanation, or guidance, despite being aware that the Appellant had questions and concerns about the requirement.
- 60. The Tribunal wants to emphasize the importance of communication and responsiveness as part of the ongoing professional relationships between builders and SCOs. While technical expertise is essential, the ability to engage constructively and respectfully is equally critical to an effective and efficient safety codes system.
- 61. Finally, while not required, the Tribunal recommends that Parkland County publish adopted guidelines for these types of installations. Once in effect, this guideline may also assist with timestamping the outlined installation requirements in Parkland County and assist future SCOs in reviewing installations which will provide consistency throughout the area.

Final Decision

62. The Order is hereby REVOKED for the reasons stated above.

