



ATCO Electric Ltd.

Micro-generation Determination

September 19, 2018

Alberta Utilities Commission
Decision 23412-D01-2018
ATCO Electric Ltd.
Micro-generation Determination
Proceeding 23412
Application 23412-A001

September 19, 2018

Published by the:

Alberta Utilities Commission
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1 Decision summary

1. For the reasons that follow, the Alberta Utilities Commission does not find that Mr. Andre Boisvert's generating unit is or will be a "micro-generation generating unit," as that term is defined in the *Micro-generation Regulation*.

2 Procedural summary

2. On February 1, 2018, Mr. Boisvert (the "customer"¹ under the *Micro-generation Regulation*) submitted a micro-generation application to ATCO Electric Ltd. (ATCO Electric).² ATCO Electric (the "owner"³ under the *Micro-generation Regulation*) rejected the application on the basis that the generating unit's projected annual energy production exceeded Mr. Boisvert's historical annual energy consumption and, therefore, did not meet the definition of a micro-generation generating unit in accordance with Section 1(1)(h)(ii) of the *Micro-generation Regulation*.

3. Under Section 2(2) of the *Micro-generation Regulation*, "if an owner ... is of the opinion that the customer's generating unit will not qualify as a micro-generation generating unit, the owner may...file with the Commission a notice of dispute." ATCO Electric chose to file a notice of dispute with the Commission on March 13, 2018. As stated by ATCO Electric in the notice of dispute:

The projected total annual energy production from the micro-generation generating unit as per the application is 13,680 kWh which is higher than the reported annual consumption of 10,394 kWh for this site. The regulation stipulates that a MG [micro-generation] generating unit is intended to meet all or a portion of the customer's total energy consumption at the customer's site, and as such, we consider that the proposed MG generating unit does not meet this criteria.⁴

4. On March 22, 2018, the Commission issued a notice of application requesting statements of intent to participate (SIPs) from interested parties by April 3, 2018. The Commission received SIPs from the following parties:

¹ Under Section 1(1)(h) of the *Electric Utilities Act*, "'customer' means a person purchasing electricity for the person's own use."

² Exhibit 23412-X0002, Mr. Boisvert inadvertently submitted his application to the incorrect email address, which caused a processing delay at ATCO Electric.

³ Under Section 1(1)(k) of the *Micro-generation Regulation*, "'owner' means the owner of an electric distribution system."

⁴ Exhibit 23412-X0001, AUC Form B Notice of Dispute Andre Boisvert (MG2018.13), March 13, 2018, PDF page 1.

- Mr. Boisvert, who identified representatives Howell-Mayhew Engineering, Inc. (HME) and Kuby Renewable Energy Ltd. (Kuby).
- The Office of the Utilities Consumer Advocate (UCA).

5. The remaining process steps, as amended through the course of the proceeding, were as set out in the table below:

Process Step	Due Date
Commission information requests (IRs)	April 20, 2018
Responses to Commission IRs	May 14, 2018
IRs from ATCO Electric to Mr. Boisvert and IRs from Mr. Boisvert to ATCO Electric	May 22, 2018
IR responses from ATCO Electric to Mr. Boisvert and IR responses from Mr. Boisvert to ATCO Electric	June 1, 2018
Objection to Notice of Dispute document from Mr. Boisvert	July 3, 2018
Commission IRs	July 13, 2018
Responses to Commission IRs	July 20, 2018
Argument (HME submitted on August 6, 2018)	August 3, 2018
Reply argument	August 20, 2018

6. The Commission considers the record for this proceeding closed on August 20, 2018.

7. In reaching the determinations set out in this decision, the Commission has considered all relevant materials comprising the record of this proceeding, including the evidence, argument and reply argument provided by each party. References in this decision to specific parts of the record are intended to assist the reader in understanding the Commission's reasoning relating to a particular matter and should not be taken as an indication that the Commission did not consider all relevant portions of the record with respect to that matter.

3 Jurisdiction

8. Under Section 2(3) of the *Micro-generation Regulation*, the Commission, on receipt of a notice of dispute, must determine whether the customer's generating unit "is or will be a micro-generation generating unit." Section 2(3) states:

(3) The Commission, on receipt of a notice of dispute under subsection (2), must, within 30 days or such longer period as the Commission, on notice to the owner and the customer, considers necessary,

- investigate and determine whether the customer's generating unit is or will be a micro-generation generating unit, and
- communicate its decision to the owner and the customer.

9. Section 1(1)(h) of the *Micro-generation Regulation* defines a micro-generation generating unit as follows:

Interpretation

1(1) In this Regulation,

...

- (h) “micro-generation generating unit” means a generating unit of a customer that
 - (i) exclusively uses sources of renewable or alternative energy,
 - (ii) is intended to meet all or a portion of the customer’s total annual energy consumption at the customer’s site or aggregated sites,
 - (iii) has a total nameplate capacity that does not exceed the lesser of 5 MW or the rating of the customer’s service,
 - (iv) supplies electric energy only to a site that is located on property that the customer owns or leases, and
 - (v) is located
 - (A) on the property referred to in subclause (iv), or
 - (B) on property that the customer owns or leases that is adjacent to the property referred to in subclause (iv);

10. Accordingly, for Mr. Boisvert’s generating unit to qualify as a micro-generation generating unit, the Commission must find that all five conditions listed in Section 1(1)(h) of the *Micro-generation Regulation* are satisfied.

11. The Commission will begin its analysis with Section 1(1)(h)(ii) of the *Micro-generation Regulation*, which is the condition of dispute between the parties. If the Commission finds that Mr. Boisvert has satisfied this condition, then it will consider whether Mr. Boisvert’s generating unit meets the other conditions in the definition.

4 Law and analysis

12. In Section 4.1 of this decision, the Commission will determine whether Section 1(1)(h)(ii) of the *Micro-generation Regulation* permits consideration of a customer’s future consumption plans. In Section 4.2 of this decision, the Commission will determine whether Mr. Boisvert’s generating unit satisfies Section 1(1)(h)(ii) of the *Micro-generation Regulation*.

4.1 Law

4.1.1 Views of Mr. Boisvert

13. HME, and specifically Mr. Gordon Howell, P.Eng., represented Mr. Boisvert in his submissions.

14. HME submitted that the meaning of “intend,” which is the present tense of “intended,” is defined in the Oxford Dictionary as follows:

1 Have (a course of action) as one's purpose or intention; plan.

1.1 (intend something as / to do something) Plan that something should be or do something.

1.2 Plan that (something) function in a particular way

1.3 Plan that speech should have (a particular meaning)

2 (be intended for) Design or destine something for a particular purpose.

2.1 (be intended for) Be meant or designed for the use of (a particular person or group)⁵

15. HME argued that a reasonable and practical understanding of the word “intended” must include both the expected and natural performance of the generating unit as well as the choices that the homeowner is intending to make over a reasonable number of years.⁶ In HME’s view, reasonable estimates of future energy consumption are an attempt to consider the future, and thus should comprise “intent.”⁷ HME argued that, generally, homeowners are not sophisticated long-term planners, and that it is reasonable to give homeowners leeway in developing their plans for the future.⁸

16. HME considered it to be fair, reasonable and in the interest of all homeowners for homeowners to be able to plan their solar-photovoltaic generating units to accommodate short-term increases in consumption in order to not endure the increased installation costs associated with subsequent, or “two-stage” installations.⁹

17. HME submitted that Section 1(1)(h)(ii) does not mention any consideration for previous consumption. Regarding the meaning of other words in Section 1(1)(h)(ii), HME stated that:

...all or a portion of the customer's total annual energy consumption at the customer's site or aggregated sites refers to the total annual electrical energy consumption of a customer within a 4-year timeframe in order to allow for any reasonable near-term consumption increases, which HME considers to be a not un-reasonable timeframe for a homeowner to do sufficient careful planning, research, saving and budgeting for large purchases.¹⁰

18. Regarding ATCO Electric’s plus 10 per cent tolerance over a 12-month period,¹¹ HME submitted that this number was not publically available, nor was it communicated to Mr. Boisvert prior to ATCO Electric filing the notice of dispute with the Commission. HME submitted that the positive tolerance demonstrates that intended increases in consumption are permitted under the *Micro-generation Regulation*. In HME’s view, higher values should be considered if a customer’s plans are reasonable.¹²

19. HME submitted that society is undergoing a period of change with respect to household electricity generation through increasing use of solar-photovoltaic generating units and a transition to electric vehicles.¹³ HME argued that the *Micro-generation Regulation* enables

⁵ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 13, paragraph 33(a).

⁶ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 14, paragraph 33(b).

⁷ Exhibit 23412-X0042, Closing Argument of Compliance of the Andre Boisvert Generating Unit, August 6, 2018, PDF page 9, paragraph 20.

⁸ Exhibit 23412-X0019, HME submission to AUC proceeding 23412 - Response to AUC IR, May 15, 2018, PDF page 16.

⁹ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 28, paragraph 43.

¹⁰ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 5, paragraph 11(a).

¹¹ Exhibit 23412-X0025, ATCO Electric Information Responses to Boisvert, June 4, 2018, AE-BOISVERT-2018May 22-001(a)(b), PDF pages 4 and 5.

¹² Exhibit 23412-X0045, HME Reply Argument part 1 of 2, August 14, 2018, PDF page 8, paragraph 15.

¹³ Exhibit 23412-X0042, Closing Argument of Compliance of the Andre Boisvert Generating Unit, August 6, 2018, PDF page 9, paragraph 20.

customers to self-generate enough solar electricity to meet their own electric energy needs, and its intent is to facilitate the changes that society needs to make and wants to make regarding the deployment of distributed solar-photovoltaics.¹⁴

4.1.2 Views of ATCO Electric

20. ATCO Electric argued that Section 1(1)(h)(ii) does not allow for energy production in excess of a customer's demonstrated past consumption.¹⁵ This is because, in ATCO Electric's view, "...future planned energy consumption over a period of years cannot reasonably, consistently or practically be considered in the assessment of eligibility under the *Regulation*."¹⁶

21. ATCO Electric stated that the use of the word "intended," in Section 1(1)(h)(ii), clearly refers to the intended purpose of the generation and not to future consumption.¹⁷ In ATCO Electric's view, the absence of specific language, such as "reasonably intended," or "generally intended," means that owners do not have broad discretion to determine what constitutes "all or a portion of the customer's total annual energy consumption," and implies that the Alberta legislature did not intend to grant such discretion.¹⁸ ATCO Electric submitted that if the aim of the *Micro-generation Regulation* was to enable consideration of both current and future intended consumption, then this would have been explicitly stated, and Section 1(1)(h)(ii) would have been written in plain language as follows:

"(ii) is intended to meet all or a portion of the customer's **intended** total annual energy consumption at the customer's site or aggregated sites" (emphasis in original).¹⁹

22. ATCO Electric argued that the intent of the *Micro-generation Regulation* is to incent self-supply by renewable energy sources,²⁰ and to simplify approvals and the overall interconnection process for micro-generators.²¹ ATCO Electric submitted that the legislation achieves these objectives by providing customers, with micro-generation units, as that term is defined in the *Micro-generation Regulation*, the following substantial benefits:

- a limited exemption from Section 18(2)²² of the *Electric Utilities Act*²³
- no-cost interconnection and metering of the micro-generator

¹⁴ Exhibit 23412-X0042, Closing Argument of Compliance of the Andre Boisvert Generating Unit, August 6, 2018, PDF page 10, paragraph 21.

¹⁵ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, PDF page 9, paragraph 28.

¹⁶ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, PDF page 5, paragraph 13.

¹⁷ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-006.

¹⁸ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-006.

¹⁹ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, PDF page 9, paragraph 32; Exhibit 23412-X0044, ATCO Electric Reply Argument, August 14, 2018, PDF pages 3 and 4, paragraphs 5 to 7.

²⁰ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-006.

²¹ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, PDF page 11, paragraph 36.

²² Section 18(2) states: "All electric energy entering or leaving the interconnected electric system must be exchanged through the power pool unless regulations made under Section 41, Section 99 or Section 142 provide otherwise."

²³ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-006.

- taxpayer funded grants²⁴

23. ATCO Electric argued that oversizing generating units results in incremental energy production that is in excess of a customer's self-supply requirements, and results in an incremental benefit to the customer and a cost transfer to other ratepayers; two results that are not intended by the *Micro-generation Regulation*. In ATCO Electric's view, because a micro-generator is compensated by other ratepayers for excess generation supplied to the grid, ATCO Electric cannot approve excess energy production based on future potential estimated energy consumption that cannot be verified.²⁵ Further, ATCO Electric argued that it cannot approve excess energy production based on verified additional consumption too far into the future, as this would result in additional subsidization by other ratepayers until the potential additional consumption materializes.

24. Finally, ATCO Electric argued that its interpretation of the regulation is supported because there is already a requirement for customers to provide a subsequent notice to the applicable owner when there is a change to the nameplate capacity of their existing micro-generation system.²⁶ Further, ATCO Electric argued that it is not an owner's obligation or role to evaluate the sincerity of a customer's future intentions in the determination of the eligibility of his or her micro-generator.²⁷

25. Despite these submissions, ATCO Electric stated that if a customer provided substantive verifiable evidence of additional consumption that would be realized within the 12 months following the date of micro-generation project notice, then it would be reasonable and consistent with the *Micro-generation Regulation* to consider this consumption in determining eligibility.²⁸

26. ATCO Electric explained that it typically allows for a plus 10 per cent variation in the annual energy production of a proposed micro-generator over the historical annual consumption in order to account for potential year-to-year variations in the customer's reported annual consumption.²⁹ In ATCO Electric's view, the plus 10 per cent variation allows for customers to practically and effectively size their generating unit in accordance with their annual energy consumption while still respecting the intent of self-supply.³⁰

4.1.3 Commission findings

27. The Commission has applied the "modern principle of statutory interpretation," which requires that:

²⁴ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-006.

²⁵ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-004(a)-(b).

²⁶ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-004(c).

²⁷ Exhibit 23412-X0044, ATCO Electric Reply Argument, August 14, 2018, PDF page 8, paragraph 27.

²⁸ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-006.

²⁹ Exhibit 23412-X0025, ATCO Electric Information Responses to Boisvert, June 4, 2018, IR response AE-BOISVERT-2018MAY22-001(a).

³⁰ Exhibit 23412-X0025, ATCO Electric Information Responses to Boisvert, June 4, 2018, IR response AE-BOISVERT-2018MAY22-001(a).

...the words of an Act are to be read in their entire context and in their grammatical and ordinary sense harmoniously with the scheme of the Act, the object of the Act, and the intention of Parliament.³¹

28. The Commission notes that there are also a number of presumptions that apply when interpreting any statute, which include:

- (1) The legislature is a competent and careful user of language and skillful crafter;
- (2) Legislatures use simple, straightforward and concise language;
- (3) The legislature avoids superfluous or meaningless words and does not repeat itself or speak in vain; and
- (4) The legislature uses language carefully and consistently so that the same words have the same meaning and different words have different meanings....³²

29. As indicated in *Sullivan on the Construction of Statutes*,³³ generally the rules governing the meaning of statutory texts and the types of analysis relied upon by interpreters to determine legislative intent apply equally to regulations.

30. Neither “intent” nor “intended” is defined in the *Electric Utilities Act* or the *Micro-generation Regulation*.³⁴ In the absence of a statutory definition, the starting point of the interpretative analysis is typically the dictionary definition of the statutory term. According to the Paperback Oxford Canadian Dictionary, Second Edition, “intend” and “intended” have the following definitions, in part:

Intend ... 1 have as one’s purpose; propose ... 2 ... design or destine ... 3 ... mean ...4 ...a be meant for a person to have or use etc. ... b be designed for

Intended ... 1 done on purpose; intentional. 2 designed, meant.... 3 future; prospective.

31. According to Black’s Law Dictionary, Tenth Edition, “intend”³⁵ has the following definition:

intend ... 1. To have in mind a fixed purpose to reach a desired objective; to have as one's purpose <Daniel intended to become a lawyer>. 2. To contemplate that the usual consequences of one's act will probably or necessarily follow from the act, whether or not those consequences are desired for their own sake <although he activated the theater's fire alarm only on a dare, the jury found that Wilbur intended to cause a panic>. 3. To signify or mean <the parties intended for the writing to supersede their earlier handshake deal>.

32. The Commission notes that the dictionary definitions of “intend” and “intended” include a prospective, future-looking component.

33. The Commission considers that an interpretation of “intended” to include a prospective, future-looking component is consistent with other uses of “intends”³⁶ in the *Micro-generation Regulation*, to describe customers and micro-generators who have an immediate desire to perform an action, but require approval by a third party as a condition precedent to performing

³¹ *Rizzo & Rizzo Shoes Ltd. (Re)*, [1998] 1 SCR 27, paragraph 21.

³² *1597130 Alberta Ltd. v. Condominium Corp.*, No. 1023241, 2016 ABQB 195, paragraph 16.

³³ *Sullivan on the Construction of Statutes*, 5th edition, page 368.

³⁴ *R v Rolland*, 1975 Carswell, Ont. 34, 27 CCC (2d) 485, 31 CRNS 68 (ONCA).

³⁵ Black’s Law does not have a specific definition entry for “intended.”

³⁶ See, for example, sections 2(1) and 2.1(1) of the *Micro-generation Regulation*.

that action. The Commission considers that such an interpretation is also practical, as a customer who undertakes installation of a micro-generation generating unit is necessarily doing so with the intent of generating all or a portion of their own energy on a go-forward basis.

34. In addition, the Commission considers that the meaning of the word “annual,” as part of the phrase, “total annual energy consumption,” and in the context of Section 1(1)(h), is as a unit of measure in a 365- or 366-day period (i.e., annual kilowatt hours),³⁷ and does not expressly preclude consideration of future time periods.

35. The parties appeared to agree that the purpose of the *Micro-generation Regulation*, in part, is to promote self-supply by renewable energy sources, and to simplify regulatory approvals and the overall interconnection process for micro-generators. The Commission notes that the *Micro-generation Regulation* contains specific provisions that permit qualified micro-generators to sell excess electricity to the power pool. In other words, the Alberta legislature contemplated that qualified micro-generators may at times produce excess electricity, and therefore included specific provisions in the statutory scheme to enable these micro-generators to sell that excess electricity to the power pool.

36. Given the purpose of the *Micro-generation Regulation*, as summarized above, the Commission does not consider it reasonable to find that because the definition of micro-generation generating unit contains conditions, that those conditions must be read as narrowly as possible. The Commission considers that a more restrictive interpretation of Section 1(1)(h)(ii) would dissuade self-supply by renewable energy sources.

37. Further, while “intended” contains a subjective element, the Commission considers that a customer can provide evidence demonstrating his or her intent. Such evidence would then be assessed on a case-by-case basis by an owner or the Commission, as applicable.

38. In view of the above, the Commission finds it reasonable to interpret Section 1(1)(h)(ii) to include consideration of a customer’s future consumption plans.

39. Having found that Section 1(1)(h)(ii) can include consideration of a customer’s future consumption plans, the Commission will next consider whether Mr. Boisvert’s generating unit satisfies Section 1(1)(h)(ii) of the *Micro-generation Regulation* based on the evidence and submissions provided on the record of this proceeding.

4.2 Analysis

4.2.1 Views of Mr. Boisvert

40. Mr. Boisvert’s electricity consumption, as of June 2018, was 10,316 kilowatt hours (kWh) per year. HME submitted that Mr. Boisvert wants to install a 34-module solar-photovoltaic generating unit rated at 13.6 kilowatt (kW) direct current, and 11.4 kW alternating current, on his house located in a subdivision outside the town of Bonnyville.³⁸ HME

³⁷ Decision 2012-103: ATCO Electric Ltd, Micro-Generation Determination, Proceeding 1477, April 17, 2012, paragraphs 21-23.

³⁸ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 3, paragraph 4.

calculated that the generating unit should produce roughly 13,680 kWh per year, based on the details of the proposed generating unit and its location.³⁹

41. HME advised that Mr. Boisvert's generating unit is intended and designed to supply existing consumption and near-term plans to add a workshop and purchase an electric vehicle,⁴⁰ which together will increase the site's consumption by 40 per cent over the next three years, and by 54 per cent over the next four years.⁴¹ HME explained that the photovoltaic modules will degrade 0.55 per cent per year after the first year, and that this should be incorporated when considering the generating unit's expected energy generation.⁴² In HME's view, the degradation will result in an overall reduction in energy generation of seven per cent in 25 years.⁴³

42. HME provided a hand drawn sketch of the workshop floor plan. HME explained that the workshop will consist of a wooden insulated building, with a high bay and a low bay, at a size of approximately 15 metres by 15 metres. HME submitted that Mr. Boisvert will use the workshop to store his electric vehicle (once purchased) and recreational vehicle, and to pursue his hobby of repairing vehicles. HME advised that Mr. Boisvert has received some quotes for the workshop, and expects to pay between \$120,000 and \$130,000 in development costs. HME submitted that the annual electrical energy consumption for the workshop is estimated to be 2,680 kWh as of mid-2020.⁴⁴

43. HME indicated that Mr. Boisvert currently drives 25,000 kilometres (km) per year, and plans to buy a Tesla Model 3 at a cost of \$45,600 (plus Goods and Services Tax).⁴⁵ This vehicle presently has a range of 500 km on a single charge.⁴⁶ HME advised that there is currently a 12-month lead time (wait-list) to purchase this kind of electric vehicle. HME submitted that Mr. Boisvert has already purchased an electric vehicle charging station, and included an invoice for the charging station in the amount of \$1,573.95.⁴⁷ HME predicted that the electric vehicle will consume approximately 2,900 kWh of electric energy from the site annually as of mid-2021.⁴⁸ Based on HME's estimation of 55 per cent highway and 45 per cent city driving (13,750 km highway and 11,250 km city), HME submitted that about 73 per cent of the required charges will occur at Mr. Boisvert's home. HME further indicated that the electric vehicle is capable of reaching Edmonton and almost all "common destinations" without requiring a recharge.⁴⁹

³⁹ Exhibit 23412-X0019, HME submission to AUC proceeding 23412 - Response to AUC IR, May 15, 2018, PDF pages 6 to 7.

⁴⁰ According to an IR response submitted on May 14, 2018, Mr. Boisvert was also planning to install in-floor heating in his basement. However, on July 3, 2018, HME, on behalf of Mr. Boisvert, withdrew the projected consumption increase of 1,800 kWh per year due to in-floor heating of Mr. Boisvert's basement after determining that the in-floor heating would be supplied by methane gas and not electricity.

⁴¹ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF pages 4 and 6, paragraphs 8 and 12.

⁴² Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 17, paragraph 35(b).

⁴³ Exhibit 23412-X0042, Closing Argument of Compliance of the Andre Boisvert Generating Unit, August 6, 2018, PDF page 6.

⁴⁴ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF pages 6-8, 11, 16.

⁴⁵ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 11, paragraph 22.

⁴⁶ Exhibit 23412-X0045, HME Reply Argument part 1 of 2, August 14, 2018, PDF page 6.

⁴⁷ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, paragraph 24, and PDF page 34.

⁴⁸ Exhibit 23412-X0042, Closing Argument of Compliance of the Andre Boisvert Generating Unit, August 6, 2018, PDF page 6.

⁴⁹ Exhibit 23412-X0045, HME Reply Argument part 1 of 2, August 14, 2018, PDF page 4.

44. HME acknowledged that these plans were conceptual, but submitted that this does not equate to those plans being disingenuous.⁵⁰ HME submitted that Mr. Boisvert's sincerity is demonstrated, in part, by his environmental commitment over the past few years, including paying an additional 2.5 cents/kWh for green electricity from 2014 to 2017, and exclusively using LED lighting in his house since 2015.⁵¹

45. ATCO Electric submitted that if Mr. Boisvert were to install the micro-generation unit as proposed that the result would be approximately 3,000 kWh per year of excess generation over his total site consumption for at least one to two years, which would result in increased costs to ratepayers. In response to this submission, HME calculated that, at 6.39 cents/kWh (the cost of electricity from Mr. Boisvert's May to mid-June 2018 electricity bill), Mr. Boisvert would receive a credit of \$215 for 2018, and \$545 total over the following three years, for a total projected profit of \$760. However, given the lower cost of Mr. Boisvert's energy compared to historical price trends for solar energy, HME submitted that the actual exported value of Mr. Boisvert's energy would be a benefit to consumers of \$61 over three years, as it would displace higher-cost energy from the market.⁵² HME concluded that the potential profit that Mr. Boisvert would earn from selling excess energy is negligible.

46. HME argued that the 34-module solar-photovoltaic generating unit should be approved now, rather than later when Mr. Boisvert's consumption is expected to increase. HME explained that it is not practical to install additional capacity later because it would require mobilizing a second installation crew to drive from Edmonton to Bonnyville to add equipment to the generating unit.⁵³ Additionally, HME submitted that it considered covering up eight of the solar-photovoltaic modules until Mr. Boisvert's consumption increased. However, HME submitted that Energy Efficiency Alberta would only award a partial Residential and Commercial Programme rebate of \$7,800 if eight modules were covered, rather than the full rebate of \$10,000 for the 34-module solar photovoltaic system, resulting in a loss of \$2,200 in rebates.⁵⁴

4.2.2 Views of ATCO Electric

47. ATCO Electric submitted that there were three primary reasons why it filed the notice of dispute:

1. The proposed generation was significantly oversized for the historical energy consumption at the site.
2. The future load additions were unclear and unsubstantiated with some plans scheduled far into the future.
3. The unwillingness of the Customer to bring the application into compliance.⁵⁵

48. ATCO Electric argued that the major problem with unverified plans, especially ones that extend so far into the future, is the uncertainty that they create, particularly when there are

⁵⁰ Exhibit 23412-X0045, HME Reply Argument part 1 of 2, August 14, 2018, paragraph 8.

⁵¹ Exhibit 23412-X0042, Closing Argument of Compliance of the Andre Boisvert Generating Unit, August 6, 2018, PDF page 8.

⁵² Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF pages 19 and 22.

⁵³ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 25.

⁵⁴ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF pages 25 and 26; Exhibit 23412-X0037, PDF page 4. HME noted that the originally stated amount of \$2,400 was a mistake.

⁵⁵ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, paragraph 26.

currently no mechanisms in place to monitor for compliance.⁵⁶ ATCO Electric submitted that if a customer provided substantive verifiable evidence of additional consumption that will be realized within the 12 months following the date of micro-generation project notice, then it would be reasonable and consistent with the *Micro-generation Regulation* to consider this consumption in determining eligibility.⁵⁷ ATCO Electric described “substantive verifiable evidence,” as follows:

ATCO Electric considers that reasonable proof of future projects that support the proposed future increase in energy consumption, could include approved development permits, proof of purchase for new equipment, engineered drawings, non-refundable down payment on an electric vehicle, or other substantive supporting documents.⁵⁸

49. In ATCO Electric’s view, such substantive verifiable evidence, for the stipulated time period, was not provided.

50. ATCO Electric argued that HME’s submissions in this proceeding demonstrate how a customer’s plans can change over time, making it challenging for an owner to assess a micro-generation application which contemplates future load increases.⁵⁹ As an example, ATCO Electric noted the withdrawal of the projected consumption increase of 1,800 kWh per year due to in-floor heating of Mr. Boisvert’s basement.⁶⁰

51. Additionally, ATCO Electric contested the feasibility of Mr. Boisvert’s planned electric vehicle mileage, stating that its understanding of electric vehicle capabilities rendered a significant portion of the planned 25,000 km of travel impossible on a single charge. ATCO Electric also expressed doubt about HME’s estimate that 75 per cent (later amended to 73 per cent by HME) of electric vehicle charging would occur at Mr. Boisvert’s home, which, in ATCO Electric’s view, further contributed to the uncertainty of Mr. Boisvert’s future energy consumption.⁶¹

52. ATCO Electric also argued that degradation in solar photovoltaic systems should not be considered when determining the eligibility of a generating unit to qualify as a micro-generation generating unit.⁶²

4.2.3 Commission findings

53. The Commission appreciates Mr. Boisvert’s commitment to the environment, as demonstrated by his “having a modest...home, including upgraded insulation and having the home fully lit by high-efficiency LED lights,” his paying extra for green energy in the past, and his desire to purchase an electric vehicle.

⁵⁶ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, PDF pages 11 and 12, paragraphs 37 and 38.

⁵⁷ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-006.

⁵⁸ Exhibit 23412-X0018, ATCO Electric Information Responses to AUC, May 14, 2018, IR response AE-AUC-2018APR20-004(c).

⁵⁹ Exhibit 23412-X0044, ATCO Electric Reply Argument, August 14, 2018, PDF page 7, paragraph 23.

⁶⁰ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, PDF page 4, paragraph 9.

⁶¹ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, PDF pages 4 and 5, paragraphs 10 to 12.

⁶² Exhibit 23412-X0044, ATCO Electric Reply Argument, August 14, 2018, PDF page 10, paragraph 35.

54. Mr. Boisvert indicated that he wanted to build a workshop by mid-2020, and the Commission acknowledges that he has spent some time considering its layout and obtaining quotes. However, Mr. Boisvert did not provide evidence that he has spent money on the workshop, that construction on the workshop has begun, or that the workshop is necessary for business or personal reasons. Additionally, it is also not clear to the Commission why Mr. Boisvert wanted to wait several years before beginning this project.

55. Similarly, while Mr. Boisvert has identified the electric vehicle he would like to purchase around 2021, he did not provide evidence that he has ordered the electric vehicle or spent any money on it. While he has purchased a charging station, the Commission considers the cost of the charging station to be nominal in comparison to the cost of the electric vehicle. The Commission notes that Mr. Boisvert did not provide evidence that an electric vehicle, or a Tesla Model 3 specifically, was required for business or personal reasons. In addition, there is conflicting evidence on the record regarding whether Mr. Boisvert's planned use of the electric vehicle, given charging limitations, is feasible.

56. Mr. Boisvert has acknowledged that his generating unit will result in production in excess of consumption for at least four years. The Commission is concerned that these projects may not proceed, given the lack of demonstrated financial investment or commitment to these projects, and given what the Commission considers to be a relatively long planning period. As HME acknowledged, the plans are conceptual at this time. If plans do change, Mr. Boisvert's generating unit may result in production in excess of consumption for an even longer period.

57. In addition, and as confirmed by HME, it is technically possible for Mr. Boisvert to proceed with a lower-capacity generator to meet his current consumption needs and then expand his generating unit when his increased consumption needs materialize.⁶³

58. Based on the above, the Commission finds that Mr. Boisvert has provided insufficient evidence on the record of the proceeding to persuade the Commission that the generating unit is intended to meet all or a portion of Mr. Boisvert's total energy consumption at Mr. Boisvert's site or aggregated sites. Accordingly, the Commission does not find that Mr. Boisvert has satisfied Section 1(1)(h)(ii) of the *Micro-generation Regulation*. Given this finding, the Commission will not consider whether Mr. Boisvert's generating unit meets the other conditions in the definition.

4.3 Other issues raised in the proceeding

59. ATCO Electric submitted that, if the Commission approved future consumption plans to be considered in the eligibility assessment of Section 1(1)(h)(ii) of the *Micro-generation Regulation*, then the Commission would need to provide clear guidelines regarding qualifying future load and monitoring compliance, including frequency of monitoring, administering post-connection changes to the customer's planned load additions, and outlining the process for re-assessment of eligibility and disqualification.⁶⁴

⁶³ Exhibit 23412-X0019, HME submission to AUC proceeding 23412 - Response to AUC IR, May 14, 2018, PDF page 15.

⁶⁴ Exhibit 23412-X0041, ATCO Electric Argument Submission, August 3, 2018, PDF page 12, paragraph 39.

60. Additionally, HME requested that the Commission:

clarify that any customer that intends to own a solar-photovoltaic micro-generation generating unit be permitted, within the intent of the text of AR27 Sub-clause 1(1)(h)(ii), to account for the degradation of the generating unit's performance over the solar-photovoltaic module's performance warranty period of 25 years and thus be permitted to over-size the generating unit's rated capacity and annual 1st-year generation by an amount of approximately 7%, which is what is able to provide for this expected and warranted degradation.⁶⁵ (emphasis added)

61. The Commission's authority under Section 2(3) of the *Micro-generation Regulation* is limited to determining whether a specific customer's generating unit is or will be a micro-generation generating unit. The Commission considers that issues such as compliance monitoring, or requests to make general statements regarding solar photovoltaic cell degradation that apply to customers other than Mr. Boisvert, are outside of the Commission's jurisdiction under Section 2(3). Accordingly, the Commission will not consider these additional matters in this proceeding.

Dated on September 19, 2018.

Alberta Utilities Commission

(original signed by)

Neil Jamieson
Panel Chair

(original signed by)

Tracee Collins
Commission Member

(original signed by)

Joanne Phillips
Commission Member

⁶⁵ Exhibit 23412-X0032, HME Objection to Notice of Dispute, July 3, 2018, PDF page 5.

Appendix 1 –Proceeding participants

Name of organization Counsel or representative
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