

1 **Undertaking Request (U-35)**

2 **Thursday, April 26, 2018**

3 **Transcript Reference: Pg. 3, line 24 to Pg. 4, line 25**

4 Undertake to provide any reference you have to the update on net metering; how many  
5 have availed of it or applied for it, or undertaken projects pertaining to net metering and if  
6 you have any reference to coordination between Hydro and Newfoundland Power as part  
7 of your Undertaking.

8

9

10 **Undertaking Response**

11 Please refer to U-DD-035 Attachment 1 for Hydro's Net Metering Annual Report, filed with  
12 the Board on March 29, 2018. As of May 4, 2018, there have been no additional  
13 applications.



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March 29, 2018

The Board of Commissioners of Public Utilities  
Prince Charles Building  
120 Torbay Road, P.O. Box 21040  
St. John's, NL A1A 5B2

**Attention: Ms. Cheryl Blundon**  
**Director Corporate Services & Board Secretary**

Dear Ms. Blundon:

**Re: Newfoundland and Labrador Hydro – 2017 Net Metering Program Annual Report**

Please find enclosed the original and 10 copies Hydro's *2017 Net Metering Program Annual Report*.

The attached report is filed in compliance with Order No. P.U. 17(2017), wherein the Board ordered that Hydro file annual progress reports on its Net Metering Program that include application and take-up rates, total customer generation installed, associated costs, and any other relevant information.

Should you have any questions, please contact the undersigned.

Yours truly,

**NEWFOUNDLAND AND LABRADOR HYDRO**

Michael Ladha  
Legal Counsel & Assistant Corporate Secretary

ML/bs

cc: Gerard Hayes – Newfoundland Power



## Net Metering Program Annual Report

March 29, 2018

*A Report to the Board of Commissioners of Public Utilities*



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1 **1.0 Introduction**

2 Approved by the Board of Commissioners of Public Utilities (the Board) on May 18, 2017,  
3 under P.U. 17(2017), the Net Metering Program, effective July 1, 2017, allows Newfoundland  
4 and Labrador electricity customers to generate power from small-scale renewable sources for  
5 their own use and supply surplus power to their electricity utility, when available.

6 Newfoundland and Labrador Hydro (Hydro) and Newfoundland Power each offer a net  
7 metering option to allow customers to install small-scale renewable generating facilities of  
8 100 kW or less to generate power for their own consumption. Between the two net metering  
9 options, there is a provincial total limit of 5 MW of generation installed.

10

11 In P.U. 17(2017), the Board also ordered that both Hydro and Newfoundland Power file  
12 annual progress reports on its Net Metering Program, including application and take-up rates,  
13 total customer generation installed, associated costs, and any additional relevant information  
14 beginning April 1, 2018.

15

16 **2.0 Net Metering Program**

17 Since July 1, 2017, Hydro has received two applications for net metering generating systems,  
18 one in St. Lewis and another in Ramea, totaling 8.4 kW. In both cases, the applications were  
19 for wind power generation in isolated communities with prime power diesel generation.  
20 Hydro has not received any net metering application for the interconnected systems. As noted  
21 in Hydro’s application for Net Metering, the addition of non-firm renewable generation in  
22 these low capacity systems could negatively affect reliability. Hydro completed a technical  
23 review of both applications.

24

25 The St. Lewis application has been deemed acceptable from an energy perspective, but the  
26 proposal has technical loading issues within an isolated diesel plant that need to be addressed  
27 before it can proceed. The output from the customer’s wind turbine could drop the output of  
28 the smallest diesel generator below 30%, which would cause a violation of rural generation  
29 planning criteria. The applicant has been notified that they must therefore install, at their

1 cost, a communication system between their system and Hydro's diesel plant to allow for  
2 shutdown of the applicant's system during low load periods. Another possible solution that  
3 has been suggested to the applicant is the use of solar panels, given that the low load diesel  
4 generation periods are at night, at which time the solar panels are not providing power to the  
5 system, and thus not contributing to generation below 30% of the smallest generator  
6 capacity. Hydro is awaiting a decision from the applicant as to a decision to proceed.

7

8 For the application for Ramea, also an isolated diesel generation system, Hydro determined  
9 that the proposal has technical restrictions similar to the ones in St. Lewis. A non-utility wind  
10 generator already in service in Ramea, Frontier Power Systems, Inc., utilizes a low-load  
11 communication protocol that limits wind generation from forcing the diesels to run below  
12 30%. As well, a Power Purchase Agreement, which is also currently in force with Frontier  
13 Power, may require priority for consumption of the power produced by the project, and  
14 therefore the applicant's energy production may be in violation of that contract. Analysis is  
15 ongoing regarding the commercial impact of Net Metering on the contractual arrangements in  
16 place in Ramea. A communication system would also be required to ensure that the wind  
17 generation would not cause a rural generation planning criteria violation by forcing the diesels  
18 to run at generation levels below 30%, and it may also be required to ensure no conflict with  
19 the existing contract with Frontier Power Systems.

20

### 21 **3.0 Net Metering Program Costs**

22 To date, costs incurred by Hydro have been approximately \$2,000 associated with technical  
23 engineering reviews.

24

### 25 **4.0 Conclusion**

26 Hydro remains in consultation with Newfoundland Power regarding the provincial limit of 5  
27 MW. To date, the aggregate capacity of the applications received by Newfoundland Power is  
28 156 kW, for a total of 164.4 kW between both utilities. At this time, Hydro has no active net  
29 metering customers.