

STATE OF NEW HAMPSHIRE

Before the

PUBLIC UTILITIES COMMISSION

DE 20-_____

SFR HYDRO CORPORATION

**VERIFIED PETITION FOR WAIVER OF
NET METERING RULE DEFINITION OF GENERATING CAPACITY**

NOW COMES SFR Hydro Corporation (“SFR” or “Petitioner”), by and through its undersigned attorneys, and pursuant to N.H. Admin. R. Puc 201.05, respectfully requests that the New Hampshire Public Utilities Commission (“Commission” or “PUC”) waive the definition of “generating capacity” contained in N.H. Admin. R. Puc 902.10 (and in Proposed Rule Puc 902.15 should it become effective while proceedings on this petition are pending) such that SFR can participate in the New Hampshire net energy metering program as a customer-generator group host. In support of this request, SFR states as follows:

I. FACTS AND PROCEDURAL BACKGROUND

1. Petitioner SFR is a New Hampshire corporation having a business address of 16 Church Street, P. O. Box 689, Kingston, New Hampshire 03848. SFR’s president is Mr. Steven B. French, who with his family, owns a controlling interest in SFR.

2. In 2013, Abenaki Timber Corp. (“Abenaki”), in which Mr. French also owns a controlling interest, purchased SFR Hydro Corporation, a hydroelectric generating facility located in Milton, New Hampshire (“the hydro facility”). SFR is a wholly owned subsidiary of

Abenaki. At the time the hydro facility was purchased by Abenaki it was inoperable. Thereafter, Mr. French and his son repaired the facility as needed and began operating it to produce electricity.

3. The SFR hydro facility is located within Eversource's service territory and consists of four (4) generating units having a total nameplate capacity or rating of 1550 kilowatts ("kW"). The respective nameplate capacity/rating of each unit is as follows: Unit 1 – 350 kW; Unit 2- 450 kW; Unit 3- 250 kW; and Unit 4- 500 kW.

4. The nameplate ratings of the four units were determined many years ago by each unit's manufacturer. The manufacture dates of the units are believed to be as follows: Unit 1- 1940; Unit 2- 1906; Unit 3- 1923; and Unit 4 -1980.

5. All of the units except Unit 4 were originally motors and have been converted and attached to turbines from Dayton Wheel and other manufacturers. Unit 1 was rewound by Electric Motor Service of Dover, New Hampshire on March 14, 1998, Unit 2 was converted from a motor to a generator in 1974 according to the plant logbook, and Unit 3 was rewound as a generator by Stultz Electric Motor Systems of Westbrook, ME on September 25, 1998. These conversions are significant because when the rated equipment is paired with other equipment, it often operates very differently than the manufacturer intended.

6. Based on Mr. French's operational experience with the hydro facility, the peak generating capacity of each of the four units comprising the hydro facility is less than (and for some units, much less than) the nameplate capacity or rating of that unit. More specifically, Unit 1's typical peak generating capacity is approximately 200 kW; Unit 2's peak generating capacity is approximately 200 kW; Unit 3's peak generating capacity is 150 kW; and Unit 4's peak generating capacity is 450 kW, depending on level of tail race and a number of other factors.

7. During Mr. French's ownership of the hydro facility, the combined annual peak output of the four generating units has rarely exceeded 1 MW, under extremely unusual and favorable conditions.

8. In January of 2020, SFR completed the installation of a supervisory control and data acquisition ("SCADA") system at the hydro facility that, among other things, can extremely reliably limit total station output to 1000kW or less. As explained in the attached letter from Mr. Richard G. Ouellette, President of S.D.I., Inc., the system can monitor the total output of the facility and automatically reduce Unit 3's output if the hydro facility's total output exceeds 990 kW. *See* Attachment 1. In addition, SFR can manually disable the head pond control feature on Unit 4 so that if there is an increase in flow over night, for example, the additional volume of water will not temporarily cause a spike in production.

9. These above-described SCADA controls are extremely accurate compared to SFR's old equipment, and helped bring to SFR's attention the fact that the name plate ratings of the hydro facility's four units were not at all representative of actual generating capacity. As Mr. Ouellette's letter explains, the automatic SCADA system reduction coupled with the ability to manually disable Unit 4 ensures that SFR's production will not exceed 1000 kW (1 MW) at any given time.

10. On behalf of SFR, Mr. Robert A. Hayden of Standard Power of America, submitted an application dated February 6, 2020 ("registration application") to the Commission to register SFR as a customer-generator group host pursuant to N.H. RSA 362-A:9, XIV so that SFR could participate in Eversource's group net metering program. *See* Attachment 2.

11. As indicated in its registration application, the hydro facility's "Generation Capacity" is listed as "1.550 MW limited to 0.950MW." Attachment 2, p. 2. The reason SFR

indicated 950kW as the capacity limit was that it had not tested the new SCADA equipment and thought that a 50kW margin of error might be needed to account for deviation. However, now that SFR is familiar with the new SCADA system, SFR knows that the system can be operated with 990 kW as maximum set point.

12. Via e-mail dated June 4, 2020, 2020, Commission Staff member Michael Sisto provided Mr. Hayden with “official notification” that SFR’s registration application had been denied. *See Attachment. 3.*

13. Based on subsequent conversations between representatives of SFR and Commission Staff, it is SFR’s understanding that its registration application was denied solely because SFR’s nameplate capacity exceeds 1 MW.

14. Mr. French has recently decided to permanently disable Unit 2 (the oldest unit) by disconnecting the belt which is 14 feet long. This would reduce the hydro facility’s total name plate capacity rating to 1100 kW. However, as explained above, in reality, the hydro facility’s peak generating capacity would not exceed 1 MW of electricity (even without the SCADA control system).

II. NET METERING STATUTE AND RULES

15. N.H. RSA 362-A:9, XIV (a) allows a “customer-generator” to participate in New Hampshire’s net metering program as a host to a group of net metering customers whose aggregate annual load, together with the host’s, exceeds “the **projected annual output** of the host’s facility.” (Emphasis added.) *Id.*

16. “Customer-generator” is defined in RSA 362-A:1-a, II-b as:

an electric utility customer who owns, operates, or purchases power from an electrical generating facility...powered by renewable energy...with a **total peak generating capacity of up to and including one megawatt**, that is located behind a retail meter on the

customer's premises, is interconnected and operates in parallel with the electric grid, and is used to offset the customer's own electricity requirements. (Emphasis added.)

17. The term "total peak generating capacity" appearing in N.H. RSA 362-A:1-a, II-b, above, is not defined in N.H. RSA 362-A. However, the term "generating capacity" is defined in the Commission's currently-effective net metering rules as "for inverter based units¹, the kilowatt rating of the inverters, and for other interconnections, the kilowatt rating of the generating facility." N.H. Admin. R. Puc 902.10.

18. The Commission is in the process of promulgating changes to its net metering rules, including a revised definition of "generating capacity" to include the term "nameplate capacity". That definition reads as follows: "for inverter-based units, the maximum generating capacity alternating current kilowatt rating of the inverters, and for other interconnections, the nameplate capacity kilowatt rating of the generating facility." Proposed Rule Puc 902.15, Final Proposal Fixed Text (3/11/20).

19. It is SFR's understanding that for purposes of determining whether a "customer-generator" is eligible for registration as a net metering group host, Commission Staff has consistently interpreted the term "total peak generating capacity" appearing in N.H. RSA 362-A:1-a, II-b, and the term "rating" appearing in current rule N.H. Admin. R. Puc 902.10, as meaning a facility's nameplate capacity.

20. For the reasons set forth below, SFR respectfully requests a waiver of the above-referenced rules (current rules and proposed rules, if necessary) such that SFR can meet the net metering group host criterion which requires that a customer-generator group host have a peak generating capacity of 1 MW or less.

¹ SFR is not an inverter based unit.

III. WAIVER STANDARD

21. The relevant waiver standard is set forth in N.H. Admin. R. Puc 201.05(a) which provides that the Commission “shall waive the provisions of any of its rules, except where precluded by statute, upon request by an interested party” upon a finding that the waiver serves the public interest and will not disrupt the orderly and efficient resolution of matters before the Commission.

22. In determining the “public interest” as indicated above, the Commission shall waive a rule if compliance with it “would be onerous or inapplicable given the circumstances of the affected person” or “[t]he purpose of the rule would be satisfied by an alternative method proposed.” N.H. Admin. R. Puc 201.05 (b).

IV. ARGUMENT

A. There is No Statutory Bar to Granting the Requested Waiver.

23. At the outset, it is noteworthy that there is no statutory preclusion to granting this waiver. N.H. RSA 362-A does not define peak generating capacity, therefore waiving the rules that define that term by referring to a facility’s rating or nameplate capacity is not statutorily prohibited. Moreover, had the legislature intended to exclude customer-generators from the net metering program based solely on their having a nameplate capacity above 1 MW, the legislature could have expressly said so, but it did not. Instead, the legislature used the words “peak generating capacity” which the Commission has chosen to define in terms of a facility’s rating, and proposes to further define in terms of nameplate capacity. In view of the foregoing, there is no statutory bar to granting the requested rule waiver.

B. The Waiver Will Serve the Public Interest.

24. The requested rules waiver will generally serve the public interest by allowing a small hydroelectric facility whose generating capability has only rarely exceeded 1 MW in many years of operation, and can now guarantee it will not ever exceed 1 MW, to participate in the net metering program, thereby enabling Eversource's retail electric customers' load to be offset (up to 1 MW) with a clean, renewable energy source.

25. The requested waiver is consistent with the public interest standard set out in N.H. Admin. R. Puc 201.05(b)(1) which requires that the Commission waive a rule if "compliance with the rule would be onerous or inapplicable given the circumstances of the affected person...".

26. SFR's circumstances demonstrate that its hydro facility's very old unit ratings/nameplate capacities (some of which were designated at a time when the unit was a motor) are an incorrect indicator of its peak generating capacity. As indicated by Mr. Martin Greco, a licensed Master Electrician with over 30 years of industrial electronics and electrical operations in power generation, generator/motor nameplate data are less reliable in determining the operational parameters of a generating unit than newly installed technologies such as the SCADA system described above. *See* Attachment 4.

27. Using the nameplate ratings of older generating units is not necessarily an accurate measure of their peak generating capacity. Nameplate ratings reflect the generator manufacturer's engineering specifications for a particular unit's safe, long-lasting operation. *Id.* "As a practical matter, the nameplate power output would be considered a value not to exceed, at a rated temperature, to avoid damage to the generator components." *Id.* For a hydroelectric

generator system, it is the hydraulic design and operational conditions of the prime mover turbine unit that will determine the efficiency and power output of the system. *Id.* Further, for small hydroelectric facilities such as SFR that began operating many years ago, “manufacturer’s nameplate information data is frequently not accurate in the installed environment.” *Id.*

28. Mr. Greco’s above-referenced statements concerning nameplate ratings of older hydroelectric units are substantiated by SFR’s recent operating history which indicates that its hydro facility output has only rarely ever exceeded 1 MW during SFR’s ownership of the facility. Accordingly, to the extent that the net metering rules (current and proposed) require that SFR’s nameplate capacity be used to measure SFR’s compliance with the 1MW limit on a customer-generator’s peak generating capacity, that measurement is incorrect given SFR’s circumstances described above.

29. In addition to meeting the public interest standard discussed above, SFR meets the public interest standard articulated in N.H. Admin. R. Puc 201.05 (b)(2), as its SCADA system is a reasonable alternative that satisfies the purpose of the rating and nameplate capacity metrics contained in the Commission’s current and proposed rules.

30. The purpose of N.H. Admin. R. Puc 902.10 and proposed rule Puc 902.15 is to define the statutory term “generating capacity” which is a key term used in the definition of “customer-generator.” *See* N.H. RSAs 362-A:1-a, II-b. “Customer-generator”, in turn, is a key term in determining whether a generating facility qualifies as a net metering group host. *See* 362-A:9, XIV(a). When taken together, the above-referenced statutes establish that a generating facility cannot qualify for registration as a net metering group host unless its peak generating capacity is at or below 1 MW. SFR will meet this criterion through the permanent disablement of Unit 2, the SCADA controls, and the capability of manually reducing the output of Unit 4.

Thus, the reduced production created by permanently disabling Unit 2, along with the production limits imposed by the SCADA system and manual controls, are consistent with the statutory scheme that is intended to limit participation in the net metering program to group hosts/customer-generators whose peak generating capacity is at or below 1 MW.

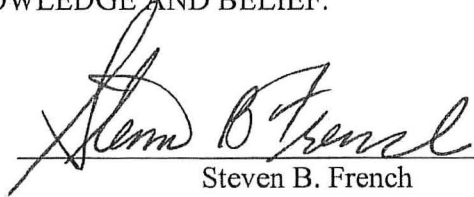
31. In addition to the permanent disablement of Unit 2 and the SCADA system alternatives to the nameplate capacity and unit rating metrics contained in the current and proposed definitions of generating capacity, Mr. Richard Labrecque of Eversource has indicated to Mr. Steven French that if SFR is approved for participation in the net metering program as a group host, Eversource would agree to review SFR's production information quarterly, and report to Mr. French and/or the Commission regarding SFR's compliance with the 1 MW limit. *See Attachment 5.* This monitoring by Eversource provides yet another alternative that satisfies the purpose behind the definitional rules from which SFR seeks a waiver.

C. The Waiver Will Not Disrupt the Orderly and Efficient Resolution of Matters Before The Commission.

32. Lastly, granting the requested waiver will not disrupt the orderly and efficient resolution of matters before the Commission. SFR is unaware of any pending Commission proceeding that would be potentially affected by the requested waiver. The waiver would not apply to all customer-generators, only to SFR, and Staff would not be required to develop any new processes or procedures for net metering group host registrations if the waiver is granted. Thus, SFR satisfies the waiver criterion set forth in N.H. Admin. R. Puc 201.05(a)(2).

33. The undersigned counsel has provided a copy of the within petition to Staff Attorney David Wiesner who has indicated that Staff does not object to the requested waiver.

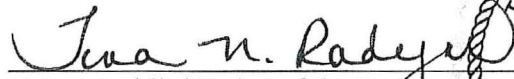
I HEREBY DECLARE THAT THE ABOVE STATEMENTS ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

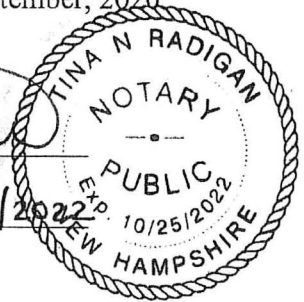

Steven B. French

STATE OF NEW Hampshire

COUNTY OF Rockingham

Subscribed and sworn to before me this 14th day of September, 2020


Notary Public/Justice of the Peace
My Commission Expires 10/25/2022



VI. RELIEF REQUESTED

For the reasons set forth above, SFR respectfully requests that the Commission:

- A. Waive the provisions of N.H. Admin. R. Puc 902.10 and, to the extent necessary, proposed rule Puc 902.15, such that SFR may meet the 1MW criterion for registration in the net metering program as a customer-generator group host; and
- B. Grant such further relief as it deems appropriate.

Respectfully submitted,

SFR HYDRO CORPORATION
By its Attorneys,
ORR & RENO, P.A.

By: S S Geiger

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Dated: September 14, 2020

Certificate of Service

I hereby certify that on the date set forth above a copy of this Petition was sent by electronic mail to the Office of Consumer Advocate and to Attorney David Wiesner.

S S Geiger

Susan S. Geiger