

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: October 13, 2020

AT (OFFICE): NHPUC

FROM: Deandra Perruccio, Analyst, Sustainable Energy Division

SUBJECT: DE 20-146, SFR Hydro Corporation Verified Petition for Waiver of Net Metering Rule Definition of Generating Capacity
Staff Recommends Waiver

TO: Dianne Martin, Chairwoman
Kathryn M. Bailey, Commissioner
Debra A. Howland, Executive Director

CC: Karen P. Cramton, Director, Sustainable Energy Division
David K. Wiesner, Director, Legal Division

On September 14, 2020, SFR Hydro Corporation (SFR Hydro) filed a petition requesting a waiver of N.H. Admin. R., Puc 902.15, which defines “generating capacity” for non-inverter-based interconnections as “the nameplate capacity kilowatt rating of the generating facility.” SFR Hydro requested the waiver in order to register its hydroelectric generation facility as a group net metering project and to receive net metering compensation under RSA 362-A:9 and the Commission’s Puc 900 rules. Commission Staff (Staff) recommends that the requested rule waiver be granted.

The petition outlines a number of facts regarding the SFR Hydro facility (pages 1-4), provides an overview of the net metering statute and rules applicable to the waiver request as well as the Commission’s rule waiver standards (pages 4-6), and concludes with reasons for granting the waiver request (pages 6- 9).

The SFR Hydro facility is a hydroelectric generating station located in Milton, New Hampshire. The SFR Hydro facility consists of four generating units with a total nameplate capacity of 1,550 kilowatts (kW). According to SFR Hydro, Unit 2 (manufacture date believed to be 1906, nameplate capacity of 450 kW) will be permanently disabled, reducing the facility generating capacity to 1,100 kW. The petition additionally represents that Unit 1 (manufacture date 1940, 350 kW) and Unit 3 (manufacture date 1923, 250 kW) were originally motors that have been rewound, converted, and attached to turbine generators. The conversion of Units 1 and 3 from motors to turbine generators is significant because “when the rated equipment is paired with other equipment, it often operates very differently than the manufacturer intended.” Unit 4 is listed with a manufacture date of 1980 and a generating capacity of 500 kW. SFR Hydro represented that, in recent years, “the combined annual peak output of the

four generating units has rarely exceeded 1 MW, under extremely unusual and favorable conditions.”

The petition represents that SFR Hydro President Steven B. French’s operational experience with the facility reflects actual peak generating capacities significantly less than the nameplate capacity or rating of each unit, reporting typical total peak generating capacity for units 1, 3, and 4 of 800 kW, depending on the tail race level and a number of other factors. The petition also includes information and attachments related to the installation of a supervisory control and data acquisition (SCADA) system at the SFR Hydro facility to enable the management of output to below 1,000 kW, and further describes the potential to 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 would not temporarily cause a spike in electrical production.

The petition attachments include a letter from Richard G. Ouellette, President of S.D.I., Inc, describing the SCADA system for the SFR Hydro facility, including its functional capability to automatically reduce the output of Unit 3 to ensure maximum kW output at a capacity at or below 1,000 kW.

The attachments also include an electronic mail communication from Martin Greco of Salmon Falls Power dated August 18, 2019 that outlines the appropriate use of alternative methods in determining “generating capacity” unique to hydroelectric facilities, specifically stating that, “in a hydroelectric generator system, the hydraulic design and operations conditions of the prime mover turbine unit will determine the efficiency and power output of the system.” According to Mr. Greco, “[s]mall hydroelectric operations placed into operation some time ago, seem to lack attention to engineering details and manufacturer’s nameplate information data is frequently not accurate in the installed environment.” Mr. Greco’s email also describes the SCADA control system installed at the SFR Hydro facility.

SFR Hydro additionally represented that its interconnecting utility, Eversource Energy, had indicated that, if SFR Hydro is approved for participation in the net metering program as a group host, it would review the SFR Hydro facility’s production information quarterly and report to SFR Hydro and/or the Commission regarding its compliance with the 1,000 kW peak generating limit. According to SFR Hydro, that monitoring by Eversource “provides yet another alternative that satisfies the purpose behind the definitional rules from which [SFR Hydro] seeks a waiver.”

SFR Hydro argues that the “total peak generating capacity of up to and including one megawatt” phrase included in the definition of eligible “customer-generator” under RSA 362-A:1-a, 11-b is not contained in the statute, with the “nameplate capacity” reference only appearing in the Commission’s rules. SFR Hydro requests the rule waiver in order to use the 990 kW maximum facility output under the SCADA control settings, permanent disablement of Unit 2, and potential manual disablement of Unit 4 head pond control, rather than the nameplate capacity of the units at the facility, to meet the requirement that the facility’s total peak generating capacity not exceed 1,000 kW.

Staff has reviewed the requested rule waiver and recommends that, pursuant to Puc 201.05,¹ the Commission grant a waiver of Puc 902.15 for SFR Hydro. In view of the age and unique circumstances of the equipment at the SFR Hydro facility and the proposed unit disablements, system controls, and production monitoring, the requested rule waiver would allow the peak generating capacity of the facility to more accurately reflect the actual capacity limitations resulting from those proposed modifications. Staff further recommends that the subsequent acceptance of SFR Hydro's group net metering application be made contingent upon confirmation that the proposed modifications have been implemented.

The requested rule waiver would serve the public interest because the purpose of Puc 902.15 is to enable renewable energy generators with total peak generating capacity less than or equal to 1 MW to participate in net metering. Staff believes that the rule is intended to ensure that facilities do not generate over the 1 MW capacity limit, and SFR Hydro has proposed to implement material modifications that would limit its electrical output to less than that amount. In effect, the specific modifications proposed by SFR Hydro represent an "alternative method" of satisfying the purpose of the applicable rule.

In sum, the proposed waiver would serve the public interest and would not disrupt the orderly and efficient resolution of matters before the Commission, in view of the unique circumstances of the SFR Hydro facility. Accordingly, the rule waiver criteria are met and Staff recommends that the Commission grant the requested waiver, contingent upon confirmation that the proposed modifications have been implemented at the time a group net metering application is submitted. *See* Puc 201.05.

¹ Under Puc 201.05, the Commission must waive the provisions of any of its rules, except where precluded by statute, upon request by an interested party, or on its own motion, if it finds that (1) the waiver serves the public interest, and (2) the waiver will not disrupt the orderly and efficient resolution of matters before the Commission. In determining the "public interest," the Commission shall waive a rule if either compliance with the rule would be onerous or inapplicable given the circumstances of the affected person, or the purpose of the rule would be satisfied by an alternative method proposed.

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