

**STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION**

Docket No. DE 10-151

HOLYOKE GAS & ELECTRIC DEPARTMENT

Application to Produce Class IV Renewable Energy Certificates

BRIEF OF GRANITE STATE HYDROPOWER ASSOCIATION

I. Introduction

On June 2, 2010, the Holyoke Gas and Electric Department (“Holyoke”) applied for Class IV Renewable Energy Certification for fourteen components of the Holyoke hydropower system under RSA 362-F:4, IV and the Renewable Portfolio Standard (“RPS”) rules at Puc 2500 *et seq.* On August 12, 2010, the Public Utilities Commission (“PUC” or the “Commission”) ruled that Holyoke does not meet the requirements under RSA 363-F:4, IV, and on September 10, 2010, Holyoke filed a motion for reconsideration or in the alternative, rehearing of the Commission’s decision. As a result, the Commission commenced the instant adjudicative proceeding pursuant to N.H. Code Admin Rules Puc 2505.13. Granite State Hydropower Association (“GSHA”) filed its motion to intervene on December 1, 2010, and that motion was granted by the Commission. *Transcript* (DE 10-151) at 15:22-16:2 (Dec. 7, 2010). On February 11, 2011, the parties filed stipulated facts with the Commission (“Stip. Facts”).

RSA 362-F permits certification of a Class IV hydropower “facility” only when it “has a total nameplate capacity of 5 MWs or less as measured by the sum of the nameplate capacities of all the generators” and it provide both upstream and downstream

fish passages, as approved by the FERC. RSA 362-F:4, IV. GSHA objects to Holyoke's request because the total nameplate capacity of one of the facilities is far greater than 5 megawatts. Furthermore, Holyoke relies on that larger facility to provide upstream and downstream fish passages for all fourteen components of its hydropower system, eliminating their eligibility under RSA 362-F:4, IV.

More specifically, Holyoke is requesting certification of fourteen "stations" within its canal system.¹ However, six of those stations are part of the 42.955 megawatt Holyoke Project ("FERC Project 2004"). *Stip. Facts* at 1. These six stations are merely components of a larger facility, and the sum of those components exceeds RSA 362-F eligibility. Holyoke asserts that the remaining eight stations are certifiable, but it relies on the upstream and downstream passages associated with FERC Project 2004 and its 42.955 megawatts to meet the RSA 362-F:4, IV requirements. *Id.* at 2. For the reasons set forth below, under the relevant statutes, rules, precedent, and legislative history these stations do not meet the certification requirements.

The issues before the Commission are: (1) Whether the FERC Project 2004 facility can be divided into "stations" so that each "station" falls within the 5 megawatt facility gross nameplate capacity limitation under RSA 362-F:4, IV and (2) Whether the upstream and downstream fish passages required in RSA 362-F:4, IV may be part of a separate facility from the one seeking certification, even when those passages are associated with a facility that has a capacity of more than 5 megawatts. The answer to both of these questions is no.

¹ The term "station" is not a statutory term established by the New Hampshire Legislature in RSA 362-F. Instead, it is a term applied by Holyoke to define the components of its hydropower system. Holyoke, in effect, asserts that a "station" is akin to a facility under New Hampshire law. GSHA uses the term "station" to refer to the components of the Holyoke system, but does not conclude that the phrase "station" is synonymous with "facility" under RSA 362-F.

II. Argument

A. Stations within FERC Project 2004 do not meet the 5 megawatt size limitation

As the Commission has already found, a hydroelectric generating facility must be no larger than 5 megawatts to meet the RPS Class IV regulations. *Class IV Renewable Energy Certificate Eligibility Application for Certain Existing Small Hydroelectric Facilities* (DE 08-053, 08-123, and 08-124) at 14 (Feb. 6, 2009) [hereinafter “2009 Order”]. However, Holyoke’s proposal requires that the Commission find that six interrelated components of the same facility may be disaggregated to meet the meaning and intent of RSA 362-F:4, IV’s size limitation.

The FERC Project 2004 facility consists of seven components: the Hadley Falls station; the Boatlock station; the Beebe-Holbrook station; the Skinner Station; the Riverside 4-7 Station; the Riverside 8 Station, and the Chemical station. In its Class IV Renewable Energy Certificate Application, Holyoke attempts to differentiate between the Hadley Falls station and each of the other six parts of the Project 2004 FERC license. In so doing, Holyoke seeks to have each component within FERC Project 2004 considered as a separate facility with respect to Class IV certification, even though the project as a whole consists of 42.955 megawatts.

The criteria that an existing small hydroelectric facility (or “source”)² must meet in order to qualify for Class IV RECs in New Hampshire are set out in RSA 362-F:4, IV, as follows:

² NH Admin. Rule Puc 2502.10 defines “Class IV source” as “a hydroelectric generation facility that began operation on or before January 1, 2006 and has a gross nameplate capacity of 5 megawatts or less, has installed FERC required and approved upstream and downstream diadromous fish passages and has obtained all necessary state water quality certifications, to the extent the source is not used to satisfy certificate purchase obligations pursuant to RSA 362-F:4, I(j).”

Class IV (Existing Small Hydroelectric) shall include the production of electricity from hydroelectric energy, provided the *facility* began operation prior to January 1, 2006, has a *total nameplate capacity* of 5 MWs or less as measured by the sum of *the nameplate capacities of all the generators at the facility*, has actually installed both upstream and downstream diadromous fish passages and such installations have been approved by the Federal Energy Regulatory Commission, and when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects..

RSA 362-F:4, IV (emphasis supplied). The size issue turns on the meaning of the word “facility” in this statute. Importantly, the “total nameplate capacity” of a facility is “measured by the sum of the nameplate capacities of all the generators at the facility,” indicating that the separate components of a facility should not be counted separately. *Id.*

In 2009, the Commission had the opportunity to rule on a similar question – whether the term “source” in an earlier version of RSA 362-F applied to the individual components of a hydroelectric facility.³ *2009 Order* at 14. The Commission found that “RSA 362-F uses the terms source, facility and generating unit interchangeably throughout the definitions,” and concluded that the term “gross nameplate capacity” in RSA 362-F:4, IV “relates to the total capacity of a hydroelectric facility, *i.e.*, a dam, not to the capacity of a turbine that is a component part of that facility.” *Id.* The Commission determined that PSNH could not disaggregate the generation units in its facilities to meet the 5 megawatt limitation in RSA 362-F:4, IV. Similarly, here, Holyoke

³ The version of 362-F:4, IV at issue in the *2009 Order* used the term “source” instead of “facility”, and read “Class IV (Existing Small Hydroelectric) shall include the production of electricity from hydroelectric energy, provided the source began operation prior to January 1, 2006, has a gross nameplate capacity of 5 MWs or less, has installed upstream and downstream diadromous fish passages that have been required and approved under the terms of its license or exemption from the Federal Energy Regulatory Commission, and when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects.” RSA 362-F:4, IV (2009); *see also GSHA Appendix* at 14-15.

cannot disaggregate the parts of the FERC Project 2004 facility to meet the requirements of RSA 362-F:4, IV.

Furthermore, the legislative history for the RPS legislation (House Bill 873) demonstrates that the stations in FERC Project 2004 cannot be separated for the purpose of meeting the 5 megawatt requirement. Where, as here, a statute may be susceptible to more than one reasonable interpretation, it is appropriate to consider and give weight to the intent of the enacting legislature. According to the New Hampshire Supreme Court:

Our rules of statutory construction are well-settled:

We are the final arbiter of the meaning of a statute as expressed by the words of the statute itself. We look to the plain and ordinary meaning of the words used in the statute and will not examine legislative history unless the statutory language is ambiguous, consider what the legislature might have said, or add words not included in the statute. We interpret a statute to lead to a reasonable result and review a particular provision, not in isolation, but together with all associated sections. The legislature will not be presumed to pass an act leading to an absurd result and nullifying, to an appreciable extent, the purpose of the statute.

Weare Land Use Assoc. v. Town of Weare, 153 N.H. 510, 511-12, 899 A.2d 255 (2006) (citations omitted). “Our goal is to apply statutes in light of the legislature’s intent in enacting them, and in light of the policy sought to be advanced by the entire statutory scheme.” *Town of Hinsdale v. Town of Chesterfield*, 153 N.H. 70, 73 (2005) (quotation omitted).

Green Crow Corp. v. New Ipswich, 157 N.H. 344, 346 (2008). The primary legislative sponsors for House Bill 873 were Rep. Suzanne Harvey, Vice Chair of the House Science, Technology and Energy Committee, and Sen. Martha Fuller Clark, Chair of the Senate Energy, Environment and Economic Development Committee (“Senate Energy Committee”). But the highly technical criteria for various classes of renewable energy generating facilities that would qualify for RECs in Classes I, II, III, and IV were

negotiated and defined in a series of stakeholder meetings coordinated and led by the NH Department of Environmental Services, and specifically by Air Resources Division Director Robert Scott and his deputy, Joanne Morin.

At the April 17, 2007 Senate Energy Committee hearing on House Bill 873, Ms. Morin stated, regarding the size limitation, that “the concept behind it is to incent those hydroelectric facilities that are more at risk of not being able to compete economically because of additional requirements or that they’re just very small, so that the economics are more difficult.” *GSHA App.* at 3 (the GSHA appendix includes relevant excerpts from Appendix D to the *Stipulated Findings of Fact* filed on Feb. 11, 2011, including parts of the legislative history regarding House Bill 873 (2007) and House Bill 229 (2009)). Ms. Morin also described the 5 megawatt size limit as applying to “small hydro projects.” *Id.* at 4 (emphasis added). In other words, RSA 362-F:4, IV was intended to apply to small projects, 5 megawatt or less, not larger projects that may have one or more individual generators or components with nameplate capacities of 5 megawatt or less. Also incorporated into the legislative record is a letter from GSHA dated April 17, 2007 that clarifies the intent of the Class IV provisions set forth in RSA 362-F:4. The GSHA letter states that the intent of the Class IV language would apply where the “‘gross nameplate capacity’ of the *project* is ‘5 MWs or less.’” *Id.* at 5 (emphasis supplied).

It is clear that the Legislature’s focus was not on physical attributes; instead it was concerned that the RPS support small hydropower for which upstream and downstream fish passages have been constructed and approved by the FERC. *Cf. Stip. Facts App. A*, Letter to Ms. Reno from Ms. Sypek (June 28, 2010) (describing the aggregation of stations for ISO-NE regulatory purposes, and contrasting the “physical” separation

between stations and their regulatory treatment). Reliance on separate physical and electrical attributes does not take this economic reality into consideration. Certifying six stations within FERC Project 2004 separately because those individual stations are each less than 5 megawatts is akin to considering individual generators or facility “components” separately, which is inconsistent with the text of RSA 362-F, the legislative history for House Bill 873, and the Commission’s precedent. *2009 Order* at 15. Certifying these components would permit aggregation of these stations for permitting and economic purposes, while still permitting them the benefit of Class IV certification.

B. Relying on upstream and downstream passages from a larger project to support certification of smaller projects is not supported by RSA 362-F:4 or its legislative history.

RSA 362-F:4, IV also requires that electricity must be produced from a facility that has “actually installed both upstream and downstream diadromous fish passages and such installations have been approved by the Federal Energy Regulatory Commission.” In addition to the six “stations” associated with FERC Project 2004, Holyoke seeks certification for eight other FERC projects: the Valley Hydro (Station No. 5) Station (FERC Project 10806); the Albion Mill A Station (FERC Project 2768); the Albion Mill D Station (FERC project 2766); the Gill Mill D Station (FERC Project 2775); The Holyoke No. 1 Station (FERC Project 2386); the Holyoke No. 2 Station (FERC Project 2387); the Holyoke No. 3 Station (FERC Project 2388); and the Holyoke No. 4 Station (FERC Project 7758) (collectively referred to as the “Eight Holyoke Projects”). None the Eight Holyoke Projects are eligible for Class IV certification. Holyoke has admitted that none of the Eight Holyoke Projects has installed upstream and downstream fish passage

facilities. *Stip. Facts App. A*, Letter to Ms. Reno from Ms. Sypek (June 28, 2010) (“Has HG&E installed upstream and downstream fish passages at any of the other facilities besides Hadley Falls Station? No.”). Instead, Holyoke requests that each of the Eight Holyoke Projects, in essence, should be allowed to take credit for or “piggy back” on the fish passages that are installed as part of the 42.955 megawatt FERC Project 2004.

The Commission has already ruled that “only those hydroelectric facilities that have both upstream and downstream fish passage are eligible for certification for Class IV RECs.” *2009 Order* at 17. Thus, the Commission has determined that each certified facility must have its own upstream and downstream fish passage, and cannot bootstrap fish passages for other facilities to meet the RPS requirements.

In addition, the legislative history for RSA 362-F strongly supports the conclusion that a larger project cannot be used to provide fish passageways for smaller projects. *Green Crow Corp. v. New Ipswich*, 157 N.H. 344, 346 (2008). The Commission has the benefit of extensive testimony regarding the RPS statute. For example, in her testimony before the Senate Energy Committee regarding House Bill 873, Ms. Morin noted that “[t]here was some slight refining of the hydroelectric category, making sure that there’s adequate fish passage and language to that effect...” *GSHA App.* at 2. In addition, Sen. Odell then conducted the following colloquy with NHDES witnesses Scott and Morin:

Senator Bob Odell, D.8: . . . Tell me a little bit about the fish ladders, and how important that is, and . . . whether or not we’ve addressed the right kind of fish and things in this, I’ve heard we might not have, and—

(Laughter.)

Ms. Joanne Morin: I’ll try. We might have to defer to stakeholders. But the idea being that we were – the concept behind it is to *incent those hydroelectric facilities that are more at risk of not being able to compete economically because they have additional requirements or that they’re*

just very small, so that the economics are more difficult. So, and also there's a push-and-pull on hydro; you know, you know, some people think any hydro-electric is very positive renewable energy. There are some that feel that there's a environmental tradeoff in terms of impacts to streams and fishways and fish and so forth.

So what this says is that the ones that would get this RPS additional incentive would be ones that actually have both fish ladders for wild fish to migrate up and downstream. The word that was used would include things like migrating eels as well as things like salmon that spawn upstream, as opposed to eels that live upstream and go to the ocean to breed. So it's trying to do joint, as I understand it, and a stakeholder may have to – I'm not an expert, but that's I think the layman's explanation.

Director Robert Scott: "Dianadromous" (laughing).

Ms. Joanne Morin: Diana..., yeah. Which would include both the eels and the salmon; in other words, both the eels that need to come down and the salmon that need to come up to spawn.

Director Robert Scott: So the language now allows free flow of fish going both ways, basically.

Ms. Joanne Morin: Both ways. So we believe these to be the most – you know, *that's a lot of investment for a small dam*, and those to warrant an economic incentive.

Id. at 3-4. (emphasis supplied). Thus, one of the main purposes of the RPS statute was to support the ability of smaller projects to construct their own fish passageways.

In addition, House Bill 229 (2009), which amended the fish passage-related sections of the RPS statute also demonstrates the intended meaning of the fish passage requirement. *See GSHA App.* at 8-9. In 2009, the Legislature added the words "has *actually* installed" fish passages to the statute, clarifying that "eligible Class IV facilities must have *actually* installed fish ladders that meet the requirements of a FERC license or waiver," and that they are not merely exempted from said requirements. *Letter from Thomas S. Burack, NHDES Commissioner to Chairman Fuller Clark* (April 23, 2009),

GSHA App. at 14 (emphasis supplied). Thus, the Legislature made it clear that each facility must have actually installed fish ladders.

Testimony by the authors regarding House Bill 229 regarding the intended meaning of the fish passage requirement in RSA 362-F:4, IV is also informative. Rep. Harvey, a prime sponsor of the RPS legislation and related amendments, in comments provided to the Senate on House Bill 229, stated, “[t]he intent of the RPS was to ‘reward’ those plants that went through the trouble and expense of installing diadromous fish passages by deeming them eligible for RECs and to specify the size of the plant for eligibility, so that, for instance, very large projects would not overwhelm the market for Class IV RECs.” *GSHA App.* at 12. Ms. Morin concurred, stating, “it was identified that the small hydros, who have to have fish ladders, have a financial burden because of those fish ladders. And, the idea was to do small hydros. The idea of the facility was that less than five megawatts and that would include any turbine at the facility. . . .” *Id.* at 13. Similar statements were provided to the Committee in public testimony. *See id.* at 15-16 (testimony of Heidi Kroll on behalf of GSHA, stating that “GSHA’s understanding is that the intent of the Class IV requirements was to ensure, among other things, that the total size of each facility was five (5) megawatts or less and that each facility had actually installed both upstream and downstream diadromous fish passages . . .”).

In *Green Crow*, the state Supreme Court said, “[w]e interpret a statute to lead to a reasonable result... The legislature will not be presumed to pass an act leading to an absurd result and nullifying, to an appreciable extent, the purpose of the statute.” 157 N.H. at 346. As noted, the purpose of the fish passage requirement in RSA 362-F:4, IV was to incent and support investment in costly fish passages at smaller facilities for which

the economic cost of fish passages is proportionately greater. But even if that is not clear, it cannot be presumed that the Legislature would have intended that Class IV RECs should be readily available to a project without fish passage of its own, simply because it happens to be sited in proximity to another FERC Project or facility which has fish passage.⁴

Finally, even if the Commission were inclined to accept the argument that the Eight Holyoke Projects can rely on the fish passages associated with a separate and distinct FERC project, the Eight Holyoke Projects cannot meet the eligibility criteria for Class IV certification because FERC Project 2004 has a nameplate capacity of 42.955 megawatts, and exceeds the 5 megawatt maximum nameplate limit specified in the RPS rule, which is contrary to the small-facility focus of the statute. *See supra, Part II.A.*

III. Conclusion

For the reasons set forth herein, GSHA respectfully requests that the Commission (a) affirm its original decision regarding the Holyoke request, dated August 12, 2010, and (b) deny Class IV status to the components of the Holyoke Canal System on the grounds that they do not meet the gross nameplate capacity and upstream and downstream fish passage requirements in RSA 362-F.

⁴ The six "stations" which are components of FERC Project 2004 are also seeking certification based on the fish passages associated with a 42.955 megawatt facility. This analysis would apply equally to those stations, if the Commission were to determine that each "station" is a facility under RSA 362-F:4, IV.

Respectfully submitted,

GRANITE STATE HYDROPOWER ASSOCIATION

By Its Attorneys

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Date: March 11, 2011

By: 

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Certificate of Service

I hereby certify that on this date written below, I caused the attached Brief of Granite State Hydropower Association to be served in accordance with the provisions of NH Admin. Rule Puc §203.11.

Date: March 11, 2011



Rachel Aslin Goldwasser

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GSHA APPENDIX

**Relevant Excerpts from
Appendix D to the
Stipulated Findings of Fact filed on
Feb. 11, 2011**

Date: April 17, 2007
Time: 1:15 p.m.
Room: State House Room 100

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The Senate Committee on Energy, Environment and Economic Development held a hearing on the following:

HB 873-FN-L establishing minimum renewable standards for energy portfolios.

Members of Committee present:

Senator Fuller Clark
Senator Hassan
Senator Cilley
Senator Sgambati
Senator Barnes
Senator Odell

Senator Martha Fuller Clark, D. 24: I'd like to have the attention of everyone here before I actually have Senator Hassan open the hearing on HB 873. We have allowed two hours for this bill. You will know that the House Committee had an all-day hearing on this legislation, at which the members heard overwhelming support for the RPS bill. So far, looking at our list, that no one has signed up in opposition to this bill. So when many of you might like to speak, it's really important that we bring this hearing to a close around quarter of three, if at all possible. So I really would encourage you, if you have written testimony, to hand it in; but we'd like to be able to move this bill forward.

And so I just wanted -- and the first part of the hearing testimony will be an explanation for the Committee members from both Joanne Morin, from the Department of DES, who has provided extraordinary leadership as we have shaped and reshaped and reshaped this legislation, and also then from Ross Gittell, who will provide the information that looks at the economic impact. And then, after, but we'll let the sponsors or co-sponsors to be able to speak first, just to open the hearing, and then we will call on other individuals. So just so that you have a sense of how we're going to proceed, I wanted to lay that out at the very beginning. And now I would like Senator Hassan to open the hearing.

the constraints of time we have a handout with some of the highlights of the bill, again, kind of summarizing it, but we can answer any detailed questions that you have. I don't want to cut your questions short; I just want to move along for time. So, with that, I'll end my comments, but certainly we're here for questions. And, again, we would like to bring the UNH professors to talk about the economics.

Senator Martha Fuller Clark, D. 24: I do have a question for Joanne Morin, and that is, could you briefly share with us what were some of the changes that were made in the House amendment?

Ms. Joanne Morin, New Hampshire Department of Environmental Services: The changes that were made were that the percentage for new renewables was increased over time; the percentage had stopped at 2015, it was moved up a little bit sooner, I think by one year, and increasing out to 2025, balanced by PUC reviews to see how the cost of RECs are going and see if this working in the way we thought it would, economically, so that we feel we have sort of a mechanism if it doesn't work as predicted.

Other major, we did add two more PUC reviews as well; people really thought that was a good mechanism to keep tabs on the bill and be able to adjust it over time. The purchase power agreements are long-term contracts that Bob Scott mentioned. The provision to allow those on a voluntary basis was added to the bill. In the bill that was passed ... the bill that was passed last year out of the Senate Committee because it didn't get amended in the House, there were discussions of further amendments, a municipal solid waste was one of the qualifying renewable energy resources, and that is no longer in the bill, after House discussion.

There was some slight refining of the hydroelectric category, making sure that there's adequate fish passage and language to that effect. There was a slight modification to Class II on the solar replacement; it used to say replacement of electric hot water with either the solar or biomass renewable resources. We were supportive, actually, of having that, the biomass renewable resources for replacing electric hot water, but there was a problem with that in that there is, um, outdoor wood boilers are becoming an issue and may be an issue for the State, they're uncontrolled. Bob Scott can speak to it better than I can. DES has a concern with how we're going to regulate those, and this might have been interpreted to give actually an incentive to outdoor wood burners and we need to deal with that before we get this into this bill. So we needed to take it out for now, because of that potential, unintended consequence.

rec

We adjusted the alternative compliance payments. As you know, how you comply with this bill is either by buying RECs on the market; if RECs are not available because of a maximum price, the electric supplier can pay into an alternative compliance payment; it's basically a price cap on this, it's very common in RPS bills. And we wanted to -- we're trying to make a regional market and so we just matched our payments for new renewables to the Massachusetts market to make them more fluid and joint regional market that seems to be driving the prices as the mass market. But those are very slight adjustments.

And then, Bob Scott also spoke to the thermal study committee, and the thermal energy is energy to produce heat, if you're not familiar with that term. So, wood-pellet stoves for heating is the part that we'd like to try to get some incentive on the thermal side; in other words, producing heat with renewables. This is an electric Renewable Portfolio Standard for that study committee. So those are the main changes.

Senator Martha Fuller Clark, D. 24: Are there other questions for either Bob Scott or Joanne Morin? Senator Odell.

Senator Bob Odell, D. 8: Thank you, Madam Chair. Tell me a little bit about the fish ladders, and how important that is, and ... whether or not we've addressed the right kind of fish and things in this, I've heard we might not have, and --

(Laughter.)

Ms. Joanne Morin: I'll try. We might have to defer to stakeholders. But the idea being that we were -- the concept behind it is to incent those hydroelectric facilities that are more at risk of not being able to compete economically because they have additional requirements or that they're just very small, so that the economics are more difficult. So, and also there's a push-and-pull on hydro; you know, you know, some people think any hydroelectric is very positive renewable energy. There are some that feel that there's an environmental tradeoff in terms of impacts to streams and fishways and fish and so forth.

So what this says is that the ones that would get this RPS additional incentive would be ones that actually have both fish ladders for wild fish to migrate up and downstream. The word that was used would include things like migrating eels as well as things like salmon that spawn upstream, as opposed to eels that live upstream and go to the ocean to breed. So it's trying to do joint, as I understand it, and a stakeholder may have to -- I'm not an expert, but that's I think the layman's explanation.

rec

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Director Robert Scott: So the language now allows free flow of fish going both ways, basically.

Ms. Joanne Morin: Both ways. So we believe these to be the most -- you know, that's a lot of investment for a small dam, and those to warrant an economic incentive.

Senator Martha Fuller Clark, D. 24: Yes, follow-up.

Senator Bob Odell, D. 8: How do we get to the five megawatts, we're talking about hydro; who's included or who's not included?

Ms. Joanne Morin: We looked at that, it includes a large -- I don't have the percentage off the top of my head; we did look at New Hampshire's facilities, we believe it includes a large percentage, you know, greater than three-quarters of the facilities in New Hampshire. There are some large facilities in New Hampshire that would not be included. And we also feel there is relatively smaller competition from the other states at that level, so that's one consideration. Kind of a little bit of a favoring New Hampshire facilities.

Is it a scientific number, five versus six or seven? No. I can't say that it is. A little bit more of a level of magnitude in terms of being a very small number that everyone was comfortable with that tried to bring in as many small hydro projects in New Hampshire.

Director Robert Scott: And, again, as I mentioned, we were trying to tailor this as much as possible to New Hampshire; that overall we're worried about -- there's a concern that perhaps Quebec Hydro plants could just -- we'd basically be sending all our money to Quebec, and we didn't think that was such a good idea, so we were setting a limit, basically.

Senator Bob Odell, D. 8: Thank you. Thank you, Madam Chair.

(Please see above-referenced NH Department of Environmental Services packet attached hereto as Attachment #2.)

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April 17, 2007

COPY

Senator Martha Fuller Clark, Chairwoman
Senator Margaret W. Hassan, Vice Chairwoman
Senate Energy, Environment and Economic Development Committee
State House
107 North Main Street
Concord, NH 03301

Re: HB 873-FN – Electric Renewable Portfolio Standard

Dear Chairwoman Fuller Clark, Vice Chairwoman Hassan, and Members of the Committee:

On behalf of The Granite State Hydropower Association ("GSHA"), thank you for the opportunity to comment in support of HB 873, the Electric Renewable Portfolio Standard ("RPS") legislation that you are now considering. As you may recall, GSHA is a non-profit trade association that represents approximately 45 New Hampshire hydroelectric facilities which have a total installed capacity of approximately 50 MW.

GSHA supports the legislation in its present form. Below, we highlight a topic concerning existing hydroelectric facilities on which we request that the Committee confirm the legislative intent; we also offer a brief explanation of the importance of this legislation to our members.

Intent of Class IV Language (362-F:4)

The Committee will note that there are a number of requirements for a hydroelectric project to meet in order to be classified within Class IV in HB 873. These are that:

- (i) "the source began operation prior to January 1, 2006";
- (ii) the "gross nameplate capacity" of the project is "5 MWs or less";
- (iii) the project "has installed upstream and downstream dianadromous [sic] fish passages that have been required and approved under the terms of its license or exemption from the Federal Energy Regulatory Commission"; and
- (iv) the project "when required, has documented applicable state water quality

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certification pursuant to section 401 of the Clean Water Act."

GSHA thinks that requirements (i), (ii) and (iv) are clear and straightforward. However, requirement (iii) warrants two comments on changes made during the concluding meetings of the House Science, Technology and Energy Committee concerning this proposed legislation.

First, the word "diadromous" is misspelled and should be changed. This was a technical drafting error.

Second, the future administration of the RPS will benefit to the extent the legislative intent of requirement (iii) is clear.

The goal of limiting eligibility to hydroelectric projects with both upstream and downstream fish passages is to recognize that projects with such facilities have gone to great capital expense and incur meaningful operating costs by virtue of supporting the migration of fish. Importantly, stakeholder discussions regarding the significant capital and operating costs of certain fish passages focused on fish passages designed to facilitate the upstream migration of salmon, shad, herring, and other "anadromous" fish.

In the course of its review, GSHA learned that some small projects in New York State have upstream and downstream fish passages designed solely for eels. Although the eel passages at those projects are relatively inexpensive to install and operate, the projects would have qualified under the Class IV definition, as originally drafted. To correct the problem, at GSHA's request, the House Committee changed the referenced definition concerning fish passages to read: ". . . has installed upstream and downstream diadromous fish passages that have been required" By adding the word "diadromous," the projects that will potentially benefit from Class IV eligibility will be as the stakeholders and the Bill's sponsors intended, i.e. those that went to the substantial expense of installing at least anadromous fish passages.

In summary, it is GSHA's understanding that the Legislature intends the Class IV definition in HB 873 to apply to any hydroelectric project which has been required to and has provided, at a minimum, upstream and downstream anadromous fish passages, and, in the event that catadromous fish passages also happen to be required by the regulatory agencies, then the project must also have upstream and downstream catadromous fish passages. Conversely, if a project has fish passages only for catadromous fish but not for anadromous fish, then the project will not qualify.

Importance of Legislation

GSHA owners and operators face a challenging scenario. On the one hand, there is growing public policy recognition of the value of emission-free, indigenous energy resources that can be priced in a stable manner. On the other hand, increasing numbers of GSHA projects are no longer covered by firm contracts and face the volatile wholesale electric energy market. In addition, most of the GSHA projects are approximately 20 years old and are incurring increased maintenance costs. Some projects face costly required upgrades for fishway and other improvements.

PRODUCING ELECTRICITY FROM A RENEWABLE RESOURCE.

These issues are present even though hydroelectric projects have no fuel cost. This is because the absence of fuel costs is more than offset by hydro project capital costs and increasing unit maintenance costs. Further, the proper operation of small hydro projects can be labor intensive per unit of output. This combination of factors produces marginal economics at some sites. Thus, the inclusion of certain existing hydroelectric facilities in proposed RPS Class IV is important financially and sends a meaningful signal to owners of eligible facilities which can make a contribution to the policy goals of the RPS legislation.

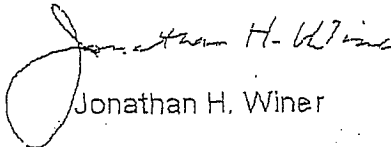
Conclusion

Once again, GSHA supports the proposed legislation, appreciates the opportunity to provide these comments, and would be pleased to respond to any questions or provide further information if needed.

Thank you again for your continuing efforts regarding RPS legislation.

Sincerely,

GRANITE STATE
HYDROPOWER ASSOCIATION



Jonathan H. Winer

Copies:

Members of the Committee

Ms. Joanne Morin
Mr. Robert Scott
NH Department of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302

PRODUCING ELECTRICITY FROM A RENEWABLE RESOURCE. _____

Amendment to HB 229

1 Amend the title of the bill by replacing it with the following:

2
3 AN ACT clarifying the eligibility requirements for class IV renewable energy generating
4 facilities and relative to renewable energy certificates.
5

6 Amend the bill by replacing all after the enacting clause with the following:

7
8 1 Electric Renewable Energy Classes. Amend RSA 362-F:4, IV to read as follows:

9 IV.(a) Class IV (Existing Small Hydroelectric) shall include the production of electricity
10 from hydroelectric energy, provided the ~~[source]~~ *facility* began operation prior to January 1, 2006,
11 has a ~~[gross]~~ *total* nameplate capacity of 5 MWs or less *as measured by the sum of the*
12 *nameplate capacities of all the generators at the facility, has actually installed both*
13 *upstream and downstream diadromous fish passages* ~~[that have been required and approved under~~
14 ~~the terms of its license or exemption from]~~ *and such installations have been approved by the*
15 *Federal Energy Regulatory Commission, and when required, has documented applicable state water*
16 *quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects.*

17 (b)(1) *Notwithstanding subparagraph (a), the commission shall re-certify as*
18 *class IV renewable energy sources the facilities named in commission order numbers 24,940*
19 *and 24,952. These facilities are:*

20 (A) *The Canaan, Gorham, Hooksett, and Jackman hydroelectric*
21 *facilities owned by Public Service Company of New Hampshire, which had been previously*
22 *certified by the commission on September 23, 2008; and*

23 (B) *The North Gorham and Bar Mills projects owned by FPL Energy*
24 *Maine Hydro, LLC which had been previously certified by the commission on October 30,*
25 *2008.*

26 (2) *These facilities shall not qualify or be certified as class IV renewable*
27 *energy sources after March 23, 2009, unless they meet the requirements of subparagraph*
28 *(a). Such facilities shall be eligible for class IV renewable energy certificates for all*
29 *electricity generated between the effective date of each facility's original certification by*
30 *the commission through March 23, 2009. Such certificates shall have the same validity as*
31 *any other class IV certificate issued under RSA 362-F, and may be sold, exchanged, banked,*
32 *and utilized accordingly.*



1 2 Renewable Energy Certificates. Amend the introductory paragraph of RSA 362-F:6, IV(a) to
2 read as follows:

3 IV.(a) Certificates issued for purposes of complying with this chapter shall come from
4 sources within the New England control area unless the source is located in a *synchronous* control
5 area adjacent to the New England control area and the energy produced by the source is actually
6 delivered into the New England control area for consumption by New England customers. The
7 delivery of such energy from the source into the New England control area shall be verified by:

8 3 Renewable Energy Fund. Amend RSA 362-F:10, VI to read as follows:

9 VI. Such payments shall be allocated from the renewable energy fund established in
10 paragraph I, *as determined by the commission* ~~[to the extent funding is available, up to a~~
11 ~~maximum aggregate payment of 10 percent of the fund per year]~~.

12 4 New Hampshire Code of Administrative Rules Puc 2600; Extension. The expiration date of
13 the New Hampshire Code of Administrative Rules Puc 2600 is hereby extended from June 30, 2009
14 to December 31, 2009 or such earlier date that final rules may be adopted.

15 5 Effective Date. This act shall take effect upon its passage.



2009-1988s

AMENDED ANALYSIS

This bill:

- I. Clarifies certain eligibility requirements for class IV renewable energy generating facilities.
- II. Extends the expiration date of the New Hampshire Code of Administrative Rules Puc 2600.

Date: April 9, 2009
Time: 9:32 a.m.
Room: LOB 102

MB

The Senate Committee on Energy, Environment and Economic Development held a hearing on the following:

HB 229 clarifying the eligibility requirements for class IV
renewable energy generating facilities.

Members of Committee present: Senator Fuller Clark
 Senator Merrill
 Senator Lasky
 Senator Odell

The Chair, Senator Martha Fuller Clark, opened the hearing on HB 229 and invited the prime sponsor, Representative Suzanne Harvey, to introduce the legislation.

Representative Suzanne Harvey: Good morning, again. I have some written testimony to... Senator, did you? Is this... Are we officially started?

Senator Martha Fuller Clark, D. 24: Yes.

Representative Harvey: I want to start off with a little bit of background on the RPS, although everyone on the Committee was present when we passed it in 2007, Renewable Portfolio Standard, RPS, also known as the Renewable Energy Act. I was the prime sponsor, along with Senator Fuller Clark on the Senate side. Just to remind everybody, we worked together with the Air Division at DES, the PUC, the Office of Energy and Planning and many, many stakeholders over several months; I think it was more than a year, to design RPS that was right for New Hampshire. At the time, there were about 23 states that had RPS statutes. It is filled with detail and rightfully left much for PUC rulemaking. However, there was some confusion about the intent of one part of the law and that's the reason for HB 229, which I consider housekeeping for clarification purposes.

If you recall, the New Hampshire RPS includes hydroelectric power as one of the renewable classes that can qualify for renewable energy credits or the RECs. These were included because our State is rich in hydro, a non-

emitting energy source. The Science and Tech House Committee spent a lot of time discussing exactly what category of hydro plants should qualify for RECs. The description of the existing statute, and I have written it down in this, but I am not going to read it, specific to this bill the hydro electric power plants have ladders for fish to ensure their safe journey through the water in order to spawn. You might wonder, as we did, what diadromous means and we spent a lot of time on that word. The word refers to the migration of fish between fresh and salt waters.

Class IV definition in HB 873, which is the RPS, was intended to apply to hydro electric projects that have been required to and have provided at a minimum up stream and down stream androgynous fish passages. That was from sea to fresh water. And, in the event catadromous fish passages from fresh to sea water are also required by regulators, then the project must also have up stream and down stream fish passages.

The intent of the RPS was to reward the plants and the owners that went to the trouble and expense of installing diadromous fish passages by deeming them eligible for the RECs and to specify the size of the plant for eligibility. So, that for instance, very large projects would not overwhelm the market for Class IV RECs. The text of the act was evidently not clear enough for Class IV renewable sources, and we want to make sure the intent of the law is followed in any future rulings.

You will hear in a few minutes that there is a suggested amendment coming that I am perfectly comfortable with; it's coming from the PUC. I think it will make things a lot easier if we at least have the part left in the law so that PUC will be really clear in the future going forward with Class IV. So, you will hear about that from the Commissioner, and I am very comfortable with what he's proposing. But, I think, just in the interest of making sure that the intent of the RPS is followed, that we go ahead with this little bit of housekeeping.

Please see Attachment #1, Representative Suzanne Harvey's testimony.

Senator Martha Fuller Clark, D. 24: Thank you so much for your very detailed and written explanation. We are very appreciative. Are there any questions for Representative Harvey? Yes, Senator Merrill?

Senator Amanda Merrill, D. 21: Thank you, Madam Chair. And, thank you, Representative. I had a couple of questions just about terminology and one is that, on line three, one of the changes is from the word source to facility. Then, in the new language, starting on line ten, the term sources is

Senator Bette R. Lasky, D. 13: I have a question.

Senator Martha Fuller Clark, D. 24: Yes, Senator Lasky.

Senator Bette R. Lasky, D. 13: Good morning.

Representative Harvey: Morning.

Senator Bette R. Lasky, D. 13: What prompted you to go about these changes? What alerted you to the fact that it wasn't working?

Representative Harvey: Right. The PUC had approved some RECs eligibility for some of the plants that we felt were not in, followed the intent of the RPS, and ultimately they agreed. So, you'll hear more about that.

Senator Bette R. Lasky, D. 13: Okay.

Senator Martha Fuller Clark, D. 24: Thank you.

Representative Harvey: Thank you.

Senator Martha Fuller Clark, D. 24: I'd like to call upon Joanne Morin.

Joanne Morin: Good morning. I am Joanne Morin from the New Hampshire Department of Environment Services. I am the Energy and Climate Programs Manager. I worked with Representative Harvey and other legislators on this bill. I simply just say we wanted to clarify some language that seemed to have some interpretation problems as the bill was being implemented by the PUC. Again, to reiterate the discussion of what hydro needed financial incentive, the RPS bill is that to try to provide additional financial incentive to those renewables that may require it.

And, it was identified that the small hydros, who have to have fish ladders, have a financial burden because of those fish ladders. And, the idea was to do small hydros. The idea of the facility was that less than five megawatts and that would include any turbine at the facility. And, there were some, those who felt that wasn't clear either, that you could actually get RECs for different turbines at one facility. So, we did want to correct that. And, then the other aspect was to indicate it was only those that had a total capacity of less than five megawatts and that also had installed fish ladders to some kind of acceptable level, not just something that was makeshift, but that the fish ladders would have met a FERC license or something similar in terms of being fairly substantial structures. So, I am going to stop there and see if you have any questions on the history.



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner
April 23, 2009

The Honorable Martha Fuller Clark, Chairman
Senate Energy, Environmental and Economic Development Committee
Legislative Office Building, Room 102
Concord, NH 03301

Re: HB 229 clarifying the eligibility requirements for Class IV renewable energy generating facilities

Dear Chairman Fuller Clark and Members of the Committee:

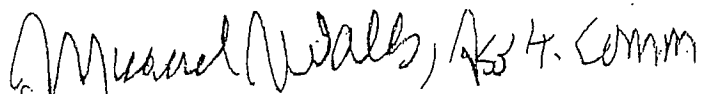
The Department of Environmental Services (DES) is pleased to testify in support of House Bill 229 as amended, clarifying the eligibility requirements for Class IV renewable energy generating facilities under the state's renewable portfolio standard per RSA 362-F:4, IV. This bill makes clear that eligible hydroelectric facilities are those that have a total nameplate capacity of 5 megawatts (MWs) and have installed both upstream and downstream fish passages. The bill language clarifies what we believe to be the original intent of the legislation.

As you know, DES worked with legislators, stakeholders and the Public Utilities Commission on House Bill 873 (HB 873) establishing minimum renewable standards for energy portfolios, which passed and was adopted as RSA 362-F. During legislative testimony to the Senate Committee on Energy, Environment, and Economic Development, DES indicated that Class IV facilities in HB 873 were small hydroelectric facilities with a total capacity of 5 MWs that had both upstream and downstream fish ladders. DES testified that these facilities were identified as warranting economic incentive through the mechanisms in HB 873. Numerous discussions with both House and Senate Committees focused on limiting Class IV facilities to those with fish ladders.

The reference in RSA 362-F to "approved under its FERC license or exemption" was intended to set a high standard for the construction of the required fish ladders. Some have interpreted this language to indicate that fish ladders are only required if they were required by the Federal Energy Regulatory Commission (FERC) license or exemption. DES is concerned that, under this interpretation, a facility could add a substandard structure, claim it to be a fish ladder, and thereby qualify as a Class IV facility. The language in HB 229 as amended is intended to make it clear that eligible Class IV facilities must have actually installed fish ladders that meet the requirements of a FERC license or waiver.

We urge you to pass this legislation to ensure that the original intent of the legislation is preserved. Should you have further questions or need additional information please feel free to contact Robert R. Scott, Director, Air Resources Division (271-1088, robert.scott@des.nh.gov) or Joanne Morin, Climate and Energy Program Manager (271-5552, joanne.morin@des.nh.gov).

Sincerely,


for Thomas S. Burack
Commissioner

cc: HB 229 sponsors



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February 5, 2009

Hon. Naida Kaen, Chair
House Science, Technology & Energy Committee
Legislative Office Building, Room 304
Concord, NH 03301

RE: HB 229, AN ACT clarifying the eligibility requirements for class IV renewable energy generating facilities

Dear Rep. Kaen:

The Granite State Hydropower Association ("GSHA") thanks you for the opportunity to testify in support of HB 229, an act clarifying the eligibility requirements for Class IV renewable energy generating facilities, and in support of the amendment introduced today by Representative Harvey. GSHA is a non-profit trade association that represents approximately 45 small independent New Hampshire hydroelectric facilities that collectively have a total installed capacity of approximately 50 megawatts.

GSHA was an active participant in the stakeholder process that led to the passage of New Hampshire's Renewable Portfolio Standards (RPS) law. The Association worked closely with legislators, environmental groups, and other interested parties to reach consensus on the requirements that Class IV renewable resources must meet to be eligible for Class IV Renewable Energy Certificates ("RECs"). GSHA supported, and continues to support, the original intent of the legislation and believes it is important to pass HB 229 in order to clarify those requirements.

GSHA's understanding is that the intent of the Class IV requirements was to ensure, among other things, that the total size of each facility was five (5) megawatts or less and that each facility had actually installed both upstream and downstream diadromous fish passages that met regulatory standards. There are various types of fish passages, and not all such passages were intended to be sufficient to qualify as a Class IV resource.

The goal of limiting REC eligibility to hydroelectric projects with both upstream and downstream fish passages was to recognize that projects with such facilities have gone to great capital expense and incur meaningful operating and maintenance costs by virtue of supporting the migration of fish upstream as well as downstream. Not only do projects have to incur annual extra labor and maintenance costs to ensure proper operation of these facilities, but these projects are required to divert and bypass water that otherwise would be available for generation. Water bypass requirements reduce annual generation by 3% or more, depending upon the hydro project's location. In particular, the stakeholder discussions contemplated that projects would

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GSHA

15

Hon. Naida Kaen, Chair
House Science, Technology & Energy Committee
February 5, 2009
Page 2

be required to install fish passages designed to facilitate the upstream migration of salmon and other "anadromous" fish, not simply upstream fish passages designed solely for eel passage (such passages are not particularly costly to install or operate). The projects that can benefit from Class IV eligibility are those that went to the substantial expense of installing upstream and downstream diadromous fish passages.

GSHA urges you to pass HB 229 with today's proposed amendment, and thanks you again for your time and consideration. I would be happy to answer any questions you might have.

Sincerely,

Heidi L. Kroll

Heidi L. Kroll
Registered Lobbyist,
Granite State Hydropower Association