2018 RPS Review (RSA 362-F:5)
Stakeholder Session #2 Notes: RPS Class Requirements
May 10, 2018, 9:00 AM to 1:00 PM
Public Utilities Commission, Hearing Room A

Disclaimer: The following "Notes" summarize comments made by one or more stakeholder(s) during the public sessions and should not be considered a consensus opinion of those in attendance. Opinions expressed in comments are those of the commenter only, and do not constitute the opinions or findings of the Commission.

1) Welcome and Introductions

2) Stakeholder Presentations (15 minutes; including Q&A)

Lisa Linowes of Windaction presented materials regarding structural issues of the (New Hampshire) RPS and its interactions with other RPS policies in the region, including New York

a) Presentation is available on the Commission's 2018 RPS Review webpage https://www.puc.nh.gov/Sustainable%20Energy/Review%20RPS%20Law.html

b) Several topics were presented, including:

i) Regional REC market overview – RPS mandates and REC Supply
   (1) Shortage conditions exist.
   (2) Encourage New Hampshire Facility Renewable Energy Certificates (RECs) to be used for New Hampshire compliance.
   (3) Impact of other state Alternative Compliance Payment (ACP) rates, RPS requirements, and REC certified facilities on New Hampshire's REC market.

ii) Goals should be to maximize RPS compliance with RECs, protect in-state facilities during regional REC surplus, protect New Hampshire rate payers during regional REC shortages, and increase transparency.
   (1) Suggested ACP rate changes were presented and discussed (slide 5).
   (2) Change in-service date for Class I to be consistent with Massachusetts and Rhode Island in-service date (i.e., 1/1/1998).
   (3) Reassess Class I Thermal requirements.
   (4) Increase transparency through reporting more details for RECs produced/purchased, make the "My Settled Certificates" reports public.

c) During the presentation other topics were discussed, including:

i) New Hampshire REC Banking Rules- current rules limit banking of RECs for 2 years and allow a maximum of 30% of the compliance obligation to be met with banked RECs.

ii) Public comments included:
   (1) Established banking limits help to maintain an orderly and non-distorted market.
   (2) Established banking limits prevent hoarding of RECs for future years' compliance.

(3) Do not change current limits.
(4) Eliminate the 30% maximum rule.

iii) GIS reporting capabilities.

3) **Adequacy or potential adequacy of sources to meet the class requirements (RSA 362-F:5, I)**

a) Class I and II Net Metering Credit for RPS Compliance – impact on REC market? Public comments included:

i) Continue to provide a compliance credit for interconnected facilities that do not apply for REC authorization because the credit reduces the overall cost of compliance.

ii) The credit distorts the market and provides misinformation to system owners. For example, customers lack of awareness, or understanding, regarding the credit and its impacts on the "renewable" attribute of their system.

iii) All renewable generators should be required to participate in the REC market.

iv) The complexity and cost to certify a facility and sell RECs in the market may be too high for very small generators (i.e., homeowners with small systems). Reduce complexity.

v) Eliminate the credit to increase market demand for Class II RECs.

vi) Reduce the capacity factor used to calculate the credit from 20% (statutorily defined) to 12% (conservative industry standard).

vii) Rhode Island model establishes a cap and has utilities serve as aggregators.

b) Classes I, I-Thermal, II, III and IV: Are there surpluses and/or shortfalls? Discussion and public comments included:

i) Discussion of regional nature of market: NH facilities authorized to produce and sell RECs in other states, NH certifying facilities located out of state, varying ACP rates, inconsistency in class definitions amongst states.

ii) Discussion of New Hampshire Class IV and Massachusetts Class II; Class IV generators can sell into either market and are currently selling into Massachusetts.

iii) Set New Hampshire ACP levels slightly higher than other states in order to encourage more REC sales in New Hampshire.

iv) ACP rates should be based on technology integration goals.

v) Discussion about the need for Classes III and IV. Public comments included:

(1) How long should "existing" facilities be supported by the RPS?

(2) Should Class III and Class IV be combined into one "existing" renewable class?

(3) Class IV under 1MW participate in net metering; possible impact of increase to 5MW (2018 - SB446); are RECs needed for these facilities to be viable?

(4) Separate classes promote fuel diversity.

4) **Class requirements of all sources in light of existing and expected market conditions (RSA 362-F:5, II)**

a) Should the class requirements change? If so, which Classes and by how much? Discussion and public comments included:

i) Class II was raised by SB 129 and it is now high enough.

ii) Class II requirement is too low; it was established when solar development costs were higher and market growth was slower.
iii) Class requirements should be set based on the level of growth in the resource technology that is desired.
iv) Class requirements should not be set to try to chase prices in a multi-state market because there are too many other contributing factors.

b) Discussion of collapsing current RPS classes into only one "new " and one "existing" class rather than having separate classes based on technology. Public comments included:
i) Establishing one class for all "new" renewable generators would allow the most efficient resource to be developed, at the lowest cost to ratepayers.
ii) Individual classes support economic development, fuel diversity and other policy goals.
iii) New Hampshire's REC market is small compared to other states in the region; therefore, class carve-outs slice the market into very small segments, making the market less liquid and less efficient. Because carve-out class markets are small; at some point there is no longer a market.
iv) Discussion of small system generators, including barriers to market participation and high costs on both the supplier and generator side.
v) Rhode Island cited as example as a state having only one "new" and one "existing" RPS class.
vi) Collapsing classes may be okay, but keep differential between new and existing.
vii) Economic support for the North Country may be an objective, but having clean, low emission, energy sources is the highest priority.
viii) Maintaining classes allows inefficient technologies to continue operating.
ix) Collapsing classes would increase efficiency and incent better technology.

5) **Potential for addition of a thermal energy component to the electric RPS (RSA 362-F:5, III)**

a) **Stakeholder Presentation (15 minutes; including Q&A)**
i) Jack Bingham of Seacoast Energy presented "The Case for Thermal RECs for Air Source Heat Pumps"
ii) Air source heat pumps are an eligible technology under the Massachusetts Alternative Portfolio Standard (APS).

b) General Discussion on Class I Thermal. Discussion and public comments included:
i) Inclusion of other renewable fuels/sources?
(1) It may be helpful to have legislation be more technology agnostic; define "renewable" rather than artificially limiting current technologies or technologies which have not been created yet.
ii) Increase interaction between Class I Thermal and Class I.

c) How is the current thermal RPS working? Discussion and public comments included:
i) Discussion of current Class I Thermal REC shortage. Public comments included:
(1) The thermal market has been a slow start for a number of reasons but making significant changes now to the thermal RPS may have negative market implications.
(2) Class I Thermal lowers the total cost of the RPS by reducing compliance payments for a portion of Class I (i.e., Class I Thermal is a carve-out of Class I, and has a lower ACP rate).

(3) The thermal market is moving in the right direction, more slowly than anticipated for reasons outside of the state's control (e.g., oil prices, delay in rule development and implementation, etc.).
(4) Concerns with the size of thermal generators and the number of RECs they create – suppliers incur higher administrative costs when buying from small suppliers.

ii) Supply and demand. Public comments included:
(1) Lower mandate (reduce obligation percentage);
(2) Increase supply of RECs (maybe by increasing fuel sources that qualify; e.g., Methane, air source heat pumps);
(3) Or, authorize the PUC to adjust class requirement.

iii) Metering requirements? Thermal Output vs. Fuel Input. Public comments included:
(1) Metering and other requirements are a major barrier for entry, especially for smaller generators.
(2) Sometimes harder to measure thermal output than fuel input.
(3) Balancing the requirement for generation accuracy and consistency with expense and ease.

iv) Other discussion topics and public comments:
(1) The underlying intent of the RPS was not to consider ACPs as a penalty, but as a price signal, or cap on New Hampshire's willingness to pay for the renewable resource. Meaning, it is okay to meet compliance through ACPs rather than RECs; avoiding ACPs at all costs was not the intent of the RPS.
(2) How are aggregators working/not working in thermal market? Public comments included:
(a) Little knowledge and little evidence of aggregation in thermal; one aggregator known.
(b) Brokers may be also working to procure Thermal RECs and working with multiple generators.
(3) Discussion of a current pending 2018 session bill (HB 559) which may enable methane to participate in Thermal REC market.
(4) Discussion of making legislative language less technology specific.
(5) Metering, engineering, testing, and market facilitation costs are too high for generators to participate in Thermal REC market.
(6) Cited Massachusetts multiplier methodology for solar hot water and geothermal.
(7) Class I-Thermal ACP/REC price is not high enough to incent solar thermal or geothermal.
(8) Discussion of air and water source heat pumps.

6) **Increasing the Class requirements relative to Classes I and II beyond 2025 (RSA 362-F:5, IV)**

a) Should increase(s) beyond 2025 be recommended? Why or why not? Discussion and public comments included:

i) This is big question with lots to consider; people need time to think about positions on this question. Two public comments:
(1) Migrating "new" facilities to "existing" facilities, or decertify facilities after x years.

(2) State solicitation for renewable energy instead of RECs.

b) RPS may not be the best way to support any resources.
c) Other states are moving to long term procurement contracts.
d) REC market is hard to predict; volatile prices.
e) Costs to generators and suppliers are barriers to participation.

7) **Possible introduction of any new Classes such as an energy efficiency class or the consolidation of existing ones (RSA 362-F:5, V)**
   a) Should an energy efficiency (EE) class be recommended? Does the Energy Efficiency Resource Standard (EERS) accomplish this? Public comments included:
      i) The 2011 RPS Review report recommended to not include energy efficiency in the RPS. That position should be maintained.
      ii) Including storage in the RPS may be something to consider.
      iii) Storage can be attractive without RPS.
      iv) Include storage in the RPS.

8) **Timeframe and manner in which new renewable Class I and II sources might transition to and be treated as existing renewable source, and if appropriate how corresponding portfolio standards of new and existing sources might be adjusted (RSA 362-F:5, VI)**
      i) When should new sources be re-classified as existing sources, if at all? Methodology for transition? New Classes for transitioned facilities? Discussion and public comments included:
         (1) Discussed the transition of "new" resources to "existing", or phasing out of resources over time.
         (2) Transitioning facilities from "new" would require new resources to come online in order for the state to continue to meet its RPS targets.
         (3) This will be a big question and will take more thought to consider positions.

9) Other topics discussed - Discussion and public comments included:
   a) Guiding principle of RPS legislation (RSA 362-F)
   b) The enabling legislation's purpose was to recognize the value renewable energy provides that was not reflected in the market.
   c) Can argue over classes, etc. but need to do so in the context of meeting goals which were stated in the legislation.
   d) Goals are broad but informative and include reducing dependency on foreign fuels, promoting fuel diversity, achieving stable energy costs, local economy, and environmental impacts.
   e) Should guiding principles be revisited?
   f) Maybe amend the statute to be more focused on defining "renewable" and less technology specific to allow for new and changing technological solutions.

10) Next Meeting
   a) June 14, 2018, 9:00 AM to 1:00 PM, Public Utilities Commission, Hearing Room A

b) Topics (RSA 362-F:5 VII-IX):
   i) Experience with and valuation of the benefits and risks of using multi-year purchase agreements for REC (with purchased power), relative to meeting the purposes and goals of this chapter at the least cost to consumers and in consideration of the restructuring policy principles of RSA 374-F:3 (RSA 362-F:5, VII)
   ii) Alternative methods for renewable portfolio standard compliance, such as competitive procurement through a centralized entity on behalf of all consumers in all areas of the state (RSA 362-F:5, VIII)
   iii) Distribution of the renewable energy fund (RSA 362-F:5, IX)