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NEPOOL REC Market Report November 2018

Report 3.0 November 2018

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Current Price Conditions

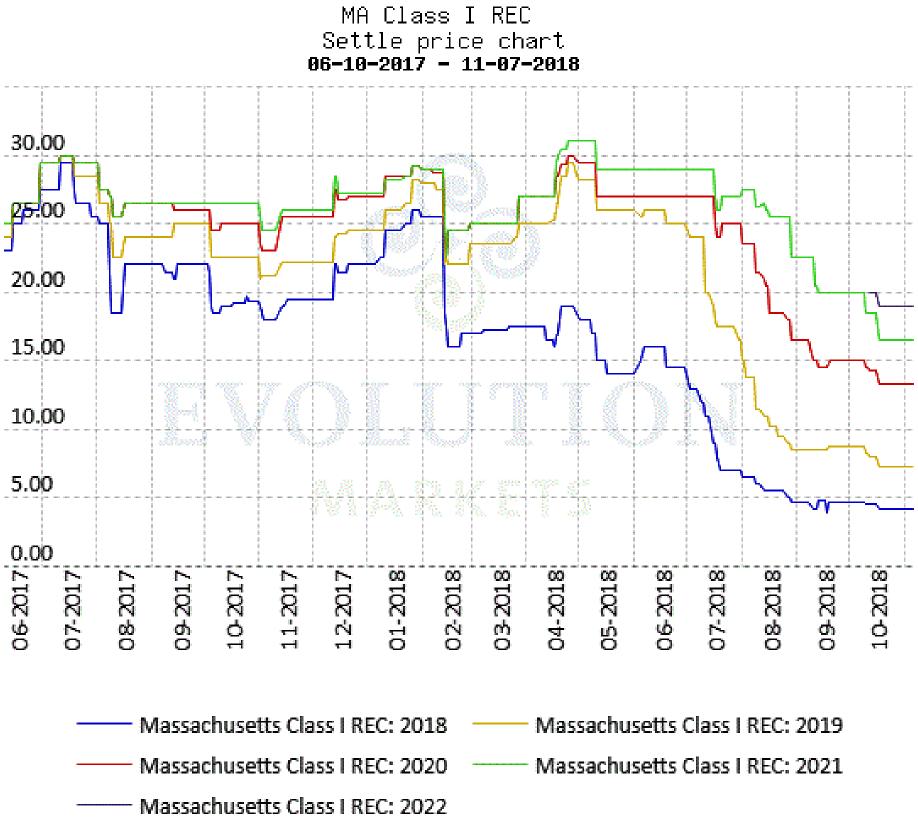
NEPOOL Class 1 REC prices continued to slide but the 2018 and 2019 vintage only moved slightly with 2018 vintage closing last month around $4.25 and 2019 vintage closing $7.25. Both 2018 and 2019 vintage Class 1 RECs have found interim bid support at the $3.00 and $6.00 range presently. Future vintages had a sharper correction as 2020 vintage moved from $15.00 to $13.00 and 2021 in sparse trading moved from $20.00 to $16.50.

Most NEPOOL Class 1 products are trading at parity with each other, including MA1, CT1, NH1, and RI new, with CT1 perhaps trailing the other products slightly at times by as much as $0.25. ME Class 1 RECs are at a significant discount with 2018 vintage trading below $2.00 and currently offered at the $2.00 mark. The lower ME1 price is a byproduct of certain generation that is only certified under the ME RPS program and cannot sell into the other NEPOOL Class 1 markets due to technology or geographic eligibility issues.

The release of Q2 generation data by NEPOOL GIS on 10/15/18 did not have a significant impact on class 1 REC

NEPOOL				
Product	**Term**	**Bid**	**Ask**	**Mid**
MA Class I REC	2018	$3.50	$5.00	$4.25
MA Class I REC	2019	$6.50	$8.00	$7.25
MA Class I REC	2020	$12.00	$14.50	$13.25
MA Class I REC	2021	$15.00	$18.00	$16.50
MA Class I REC	2022	$17.00	$21.00	$19.00
CT Class I REC	2018	$3.50	$4.50	$4.00
CT Class I REC	2019	$6.00	$8.00	$7.00
CT Class I REC	2020	$12.00	$14.50	$13.25
CT Class I REC	2021	$15.00	$18.00	$16.50
CT Class I REC	2022	$17.00	$21.00	$19.00
ME Class I REC	2018	$1.00	$2.00	$1.50
ME Class I REC	2019	$2.50	$6.50	$4.50
NH Class I REC	2018	$3.50	$5.00	$4.25
NH Class I REC	2019	$6.50	$8.00	$7.25
RI New REC	2018	$3.50	$5.00	$4.25
RI New REC	2019	$6.50	$8.00	$7.25
MA Class II REC	2018	$26.00	$28.00	$27.00
MA Class II REC	2019	$25.00	$27.50	$26.25
MA Class II WTE REC	2018	$4.50	$5.50	$5.00
MA Class II WTE REC	2019	$5.50	$6.25	$5.88
CT Class II REC	2018	$1.50	$3.00	$2.25
CT Class II REC	2019	$3.00	$8.00	$5.50
CT Class III REC	2018	$23.50	$25.00	$24.25
CT Class III REC	2019	$23.00	$27.50	$25.25
ME Class II REC	2018	$0.75	$1.25	$1.00
MA APS REC	2018	$16.00	$19.00	$17.50
MA APS REC	2019	$17.00	$19.00	$18.00
RI Existing REC	2018	$1.00	$2.00	$1.50
NH Class II REC	2018	$4.00	$8.00	$6.00
NH Class II REC	2019	$7.00	$25.00	$16.00
NH Class III REC	2018	$5.00	$12.00	$8.50
NH Class III REC	2019	$8.00	$14.00	$11.00
NH Class IV REC	2018	$20.00	$25.00	$22.50

markets and participants are still mostly weighing developments well into the future to form an opinion on price direction. Despite the apparent near term surplus of class 1 RECs, the ability of significant new class 1 projects within NEPOOL to be developed, availability of imported generation from adjacent regions (including large Canadian Hydro on new transmission to meet increasing Clean Energy Standard requirements) will determine future price direction.



Market Developments

Renewable Fuel Generation Q1 2017 vs. Q1 2018

From Vintage	To Vintage	Fuel Type	Certificates Total	Imported Certificates	ISO-NE Settlement Certificates	Behind the Meter Certificates	Year on Year change
Jan-18	Jun-18	Biogas	3,838	0	5	3,833	103.50%
Jan-18	Jun-18	Biomass	1,155,871	67,937	674,616	413,318	3.85%
Jan-18	Jun-18	Digester gas	42,799	0	9,851	32,948	1.73%
Jan-18	Jun-18	Fuel cell	161,493	0	86,155	75,338	7.65%
Jan-18	Jun-18	Landfill gas	574,796	288,264	234,825	51,707	-4.71%
Jan-18	Jun-18	Photovoltaic	1,572,889	0	70,999	1,501,890	38.41%
Jan-18	Jun-18	Wind	2,903,671	1,051,184	1,800,549	51,938	3.24%
Jan-18	Jun-18	Wood	1,033,557	227,015	711,743	94,799	-1.50%
TOTAL			7,448,914	1,634,400	3,588,743	2,225,771	7.83%

From Vintage	To Vintage	Fuel Type	Certificates Total	Imported Certificates	ISO-NE Settlement Certificates	Behind the Meter Certificates
Jan-17	Jun-17	Biogas	1,886	0	0	1,886
Jan-17	Jun-17	Biomass	1,112,979	3,766	720,181	389,032
Jan-17	Jun-17	Digester gas	42,072	1,140	8,033	32,899
Jan-17	Jun-17	Fuel cell	150,013	0	88,078	61,935
Jan-17	Jun-17	Landfill gas	603,182	304,497	238,165	60,520
Jan-17	Jun-17	Photovoltaic	1,136,424	0	33,785	1,102,639
Jan-17	Jun-17	Wind	2,812,421	1,031,675	1,723,110	57,636
Jan-17	Jun-17	Wood	1,049,254	217,943	746,505	84,806
TOTAL			6,908,231	1,559,021	3,557,857	1,791,353

A review of the Q2 2018 generation data released on 10/15/18 by renewable fuel type that is typically Class 1 eligible indicates an increase of 7.8% for FH18 over FH17 (note that hydroelectric generation data is not included in our table as most reported hydro generation is not Class 1 eligible and there has not been significant growth of Class 1 eligible hydro generation in the last several years).

Within the renewable fuel categories, "Wood" and "Biomass" is relatively flat year on year, "Wind" is up slightly (3.24%), PV Solar is up 38% (reflecting the continued buildout of MA Solar as well as other New England solar projects) and "Landfill gas" is down almost 5% for the period.

A review of electric load as reported by ISO-NE (real time) for January – September 2018 as compared to the same period last year, shows a significant increase in electric use with the entire NEPOOL region coming in 2.77% higher than last year. The biggest increase was in CT (3.37%) and MA saw an increase of 2.60% for the period.

2017 Retail Sales New England (MWh) vs. 2018 Retail Sales New England (MWh)

State	2017 Load	2018 Load
CT	21,830,692	22,566,967
MA	41,141,147	42,210,285
RI	5,986,894	6,165,580
NH	8,555,890	8,769,279
ME	8,391,796	8,575,546

*Through 9/31 of each year

Data from NE-ISO 2017 & 2018 SMD Hourly Reports

Regulatory Developments

New Connecticut governor Ned Lamont to help grow state's solar industry

Newly elected Connecticut governor Ned Lamont has openly supported the need to grow renewable energy in Connecticut throughout his campaign. Lamont said he has plans to increase funding to the Connecticut Green Bank as well as the Energy Efficiency Fund, and in a statement while touring Trinity Solar he said, “My goal is to create standards that drive clean energy development to sites that lack other good uses while keeping the door open to owners of productive lands who want to integrate clean energy into their mix of uses."

Maine governor election to have implication's on state's renewable sector

Shawn Moody (R) has made it clear that his views regarding renewable energy policy align with current Governor LePage. Moody was quoted saying"In the long term, renewable energy can play an important role in this energy strategy, but we cannot subsidize high-priced sources of energy, or special interests, at the expense of Maine people." Janet Mills (D) has openly voiced her support for renewable energy and her intention to allow the current wind moratorium to expire. Mills was quoted saying "Maine has the resources and the expertise to lead the entire nation in growing the clean energy economy, creating good-paying jobs, cutting pollution and lowering energy costs...What we've been missing is a leader willing and ready to take advantage of those opportunities."

Decision on New England Clean Energy Connect not to come until March 2019

Central Maine Power's project will have to wait until next year for a decision to be made. The transmission line that will deliver Canadian hydro power to customers in Massachusetts has received resistance since its introduction over the environmental impacts of the transmission line and the lack of upside for Mainers.

ISO-New England and NEPOOL file for energy storage market revisions

Iso-New England and NEPOOL have filed revisions to propose a new design that would enable batteries and other storage technologies to more fully participate in the New England wholesale electricity markets. The Federal Energy Regulatory Commission (FERC) has been asked to consider the proposal in order to implement a revised program by April 1, 2019

Checking in on Rhode Island's Clean Energy Portfolio

In March 2017, Governor Raimondo announced a plan to develop 1,000 MW of clean energy by 2020. As of quarter 2 of 2018, the state has added 159 MW of renewables for a total of 297 MW. That number is compromised of onshore wind, solar, landfill gas, offshore wind and small hydro.

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About Evolution Markets Inc. Evolution Markets Inc. provides strategic financial and industry-leading transactional services to participants in global environmental markets and the clean energy sector. Formed in 2000, the company has become the green markets leader, leveraging its unrivaled experience and knowledge on behalf of participants in the global carbon, U.S. emissions, renewable energy, weather derivative, and over the counter (OTC) coal, power, natural gas, oil, nuclear fuel, biomass, and biofuels markets. Evolution Markets is actively involved in the emerging compliance REC markets in NEPOOL, PJM, NY, CA, Texas, and the Midwest. In addition Evolution Markets also serves the nationwide voluntary REC market. Evolution Markets' Renewable Energy Markets team was voted "Best Broker" for U.S. Renewable Energy Certificate Markets by Environmental Finance magazine from 2003 to 2017.

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