



## Town of Reading Meeting Minutes

### Board - Committee - Commission - Council:

RMLD Citizens Advisory Board

Date: 2021-12-20

Time: 6:00 PM

Building:

Location:

Address:

Session: Open Session

Purpose: General Business

Version:

#### Attendees: **Members - Present:**

Mr. Jason Small, Chair (North Reading); Mr. Vivek Soni, Vice Chair (Reading); Mr. Dennis Kelley (Wilmington)

#### **Members - Not Present:**

Mr. George Hooper, Secretary (Wilmington); Lynnfield Position Vacant

#### **Others Present:**

Staff: Ms. Coleen O'Brien, Mr. Hamid Jaffari, Ms. Wendy Markiewicz, Ms. Erica Morse, Mr. Gregory Phipps, Ms. Janet Walsh

Mr. Philip Pacino, RMLD Board of Commissioners

**Minutes Respectfully Submitted By:** Mr. Jason Small, Chair

### Topics of Discussion:

PER GOVERNOR BAKER'S MARCH 10, 2020, ORDER SUSPENDING CERTAIN PROVISIONS OF THE OPEN MEETING LAW, G.L. c. 30A, §20 AND THE JUNE 16, 2021, ACT EXTENDING CERTAIN COVID-19 MEASURES, THIS MEETING WAS HELD REMOTELY VIA ZOOM.

#### 1. Call Meeting to Order – J. Small, Chair

Chair Small called the meeting of the Citizens' Advisory Board to order at 6:00 PM and noted the meeting was being audio recorded. Chair Small asked all members present to state their names.

#### 2. Approval of Minutes – J. Small, Chair

**Materials:** Draft Minutes from February 24, 2021, April 22, 2021, July 19, 2021, August 12, 2021, and September 23, 2021.

Mr. Kelley made a **motion** that the Citizens' Advisory Board approve the minutes of the February 24, 2021, April 22, 2021, July 19, 2021, August 12, 2021, and September 23, 2021, meetings as written, seconded by Mr. Soni. **Motion carried** 3:0:1 (3 in favor, 0 opposed, 1 absent) by roll call vote of those present: Mr. Kelley, aye; Mr. Soni, aye; Chair Small, aye. Mr. Hooper was not present.

#### 3. General Manager's Update – C. O'Brien, General Manager

Ms. O'Brien reported that the 2022 historical calendars are now available. An Electric Vehicle Charging Strategies Webinar is scheduled for February 1st at 7:00 PM and will provide education on electric vehicles and RMLD rebates to promote electrification.

Planning is underway for the Renewable Choice program launch, High School Art Contest kickoff, and the Elementary Art Contest awards ceremony.

Ms. O'Brien reported that ENE has received the Vineyard Wind bid award; negotiations with Vineyard Wind will occur between now and April. ENE will determine how the output will be allocated amongst its members. The RMLD looks forward to being part of future wind opportunities as they continue to be built south of Massachusetts and then possibly all the way up the east coast. More information will be provided as it becomes available. An email regarding the award was sent to the CAB earlier in the day.

Ms. O'Brien provided an overview of recent legislative meetings that were set up and attended by ENE. Discussions included Green Communities and the omnibus bills pending this session. Ms. O'Brien encouraged to allow for each community to apply for Green Communities individually.

Ms. O'Brien reported that the RMLD was not able to move forward with an Innovate Mass grant with the Wilmington Housing Authority on thermal storage heat pump technology at this time. Taunton Municipal Light will be moving forward with an application and RMLD will follow their progress for lessons learned and then consider moving forward with Wilmington on the next round. The difference between Taunton and Wilmington is that Taunton Housing Authority currently uses (fossil fuel) oil burners, which are at the end of their useful life. The units are maintained by the Housing Authority so there is immediate value if they were to get a grant to eliminate fossil fuel. The Wilmington Housing Authority (20 units) uses resistive heat, and it is not very costly to maintain for the Housing Authority but is expensive for the customer to run. Ms. O'Brien noted one of the bills coming out includes funding to help all housing authorities in Massachusetts with heat pump upgrades.

Ms. O'Brien reported the ARPA (American Rescue Plan Act) health and economic stimulus package (in response to COVID) will provide some funding for electrification. Discussion ensued regarding the various grant and funding opportunities potentially available through the State.

Ms. O'Brien reported that staff will be releasing the construction bid for the five Level II EV chargers. As directed by the AG's office, the bid will list the Reading sites and the Wilmington sites as alternates. This will allow contractors to bid on both and the award will be determined based on whether Wilmington has signed their license agreement.

4. Integrated Resources Report – G. Phipps, Director of Integrated Resources  
Materials: Decarbonization Strategy of RMLD Power Supply (Presentation Slides)

Mr. Phipps began review of the presentation slides, **Decarbonization Strategy of RMLD Power Supply**, with a review of the *2021 YTD Power Supply Costs* (Slide 3) noting the slide being presented has been updated from what was included the packet. The data is the same, but the RMLD budget line (purple) was added. Mr. Phipps noted the total purchase power (on the left side) is the sum of energy, capacity, and transmission (reported in dollars). The RMLD budget line (purple), is straight-lined across (the annual budget divide by 12). The inputs for the ENE forecast look at the seasonality associated with power supply costs. Capacity and transmission, and much of energy are driven by established rates, and in the case of energy, longer term contracts, and usage equivalents. The variability of usage equivalents is driven primarily by weather, specifically MWHs for energy usage and MW peaks in the case of capacity and transmission. The RMLD team dampens these seasonal changes via the fuel and PPCT monthly rates.

The snapshot presented is as of October 2021 YTD, with total purchase power just under \$1m below (RMLD) budget. The key driver is that energy is higher (\$824k) than budget, which is driven by higher usage due to weather. Capacity and transmission are lower

than budget. It is expected the total of all three will come in below budget by the end of the year.

Mr. Soni asked relative to energy costs, if the forward contracts have kept RMLD prices (costs) relatively lower; spot prices would have actually been much higher (for natural gas). Mr. Phipps said that was correct. On average somewhere between 10-20% of energy (depending on the time of year) is the open position, which is market-driven pricing. The resultant 80-90% is contract prices so there is less variability. What is shown is (primarily) a usage driven change.

Mr. Phipps then reviewed *Decarbonization Context and Implications* (Slide 4), noting the Climate Law, put into place in 2021, is going to result in an increase to the regional load and most likely the RMLD load, which is forecasted to grow 60-70% by 2050. In that same time period, the Climate Law's focus on non-carbon generation is going to phase out the majority of the natural gas generations that are in place right now; those natural gas generators represent (on average) about half of the current power supply in the ISO New England region.

Mr. Phipps outlined the challenges of acquiring hydro, wind, and solar generation projects. Staff is contracting as much hydro as possible but, in terms of the regional area, there are no new hydro facilities being built. RMLD is trying to position itself to contract existing (hydro) contracts as they expire. Hydro will offer some new incremental regional supply additions, but nothing substantial. Significant solar and wind generation assets need to be built but they will face delays and limits. Regardless, RMLD will aggressively go after these projects. Mr. Phipps reviewed some of the current initiatives underway including the Broadleaf Project and the Seabrook solar project. In summary, demand is going up and identified supply is going down, which puts upward pressure on both price and availability. Looking forward, it will be prudent for RMLD to contract a larger portion of its forecasted purchases further out than we had in the past.

Mr. Phipps then reviewed (Slide 5) *Characterization of Non-Carbon Gen Assets*. The blue line on the chart on the left shows the seasonality of RMLD load with a peak in the summer. The actual (regional) output for solar, wind and hydro are shown in the colored areas. Wind and solar are very good generators from a non-carbon perspective, but they are intermittent. Hydro output is seasonal; the maximum output is tied to higher springtime runoff flow (March, April, and May). Into August and September, when the RMLD load is high, the rivers tend to dry up and output reduces. Wind, like hydro, is strongest in the winter and lowest in August. Solar is a bit stronger in the summer, but not as strong in the winter (fewer daylight hours).

Mr. Phipps then reviewed the daily generation (chart on the right-hand side). The blue line represents RMLD's daily load, and the orange line is the actual (2020) output of all the solar generators in New England. Most of the generation is in the middle of the afternoon, and our load (or need) is late afternoon/early evening. In summary, solar, hydro and wind are all seasonal. They are all intermittent and they are all valuable to the RMLD portfolio, but RMLD cannot build its entire portfolio just on those assets; a carefully crafted mix is required.

Moving to Slide 6 (*RMLD Decarbonization Transition*), Mr. Phipps noted the data is carried out through 2049. The supply to be acquired (load) is the top of the stacked bars and represents the load growth that is anticipated (driven by electrification). In 2021 RMLD will end up roughly around 659k MWH sales versus 651k MWH sales in 2020 or about a 1.2% growth between 2020 and 2021. The RMLD annualized target (the dark line) represents certificate retirements. RMLD will need to add to its portfolio as we get out past 2025 all the way to 2049.

To the extent possible, within the context of availability as discussed earlier, wind, solar and hydro generation need to support the majority of that growth, but RMLD will also

need to add nuclear. Specifically, the proposed plan is to increase nuclear to nearly 40% of total supply mix. The intention is to fill what used to be called "base load" to allow a reliable, steady, support of power when the intermittent sources are not producing energy. Battery storage will also fit into the portfolio. The graph is a snapshot of how staff is thinking about the RMLD decarbonization strategy going forward and the importance of nuclear as part of that strategy.

Mr. Phipps stated there are only two remaining nuclear sites – one in Seabrook, New Hampshire, and the other in Milford, Connecticut (Millstone with two reactors). One of the Millstone reactors is licensed through 2035, and the second is licensed through 2046. The Seabrook license extends to 2049. RMLD will pursue a balance of Millstone and Seabrook so that the risk, in terms of supply, is spread across those three reactors. Mr. Phipps asked if there were any questions.

Mr. Kelley noted that (per the chart) the further you go out (in time) hydro and wind (contracts) are less and less. Mr. Phipps respond that was correct. RMLD is going to try where possible to keep hydro at somewhere around 20%, but there is a lot of competition for hydro since the Climate Law passed. RMLD is well positioned to take existing (hydro) contracts and extend those out, and to increase hydro. However, it will not be much more than what it is in 2024/2025 in terms of capacity because additional hydro facilities are not being built in any noteworthy quantity. Most of the supply growth is going to be in solar and wind. At the end of the day, RMLD will have to replace more than half of the natural gas supply in the portfolio right now (shown in purple "mixed"). The only choices are nuclear, wind, solar and hydro, until someone creates something new and different.

Mr. Phipps then reviewed the current proposal as outlined on Slide 7 (*Power Supply - Nuclear*). RMLD would like to increase nuclear sourced energy between 2025 and 2049 up to 40%; RMLD's nuclear (supply) currently peaks out around 36% in 2035-2040. Incremental volume is roughly 60k megawatt hours or 9% (moving from ~27% up to ~36%). RMLD does not want to fill the portfolio until 2025 given what is already in place, which is why the proposal gives steps in 2026, 2030, 2036, and 2040, basically extending existing contracts that would be expiring at that point in time. Because of the requirement to be non-carbon compliant (100% by 2050), future contracts need to have EFECs. Currently, there is one LOI (letter of intent) with Seabrook on the table, and staff is working on a second LOI with Millstone. In both cases, pricing is going to be roughly 10-12% higher than average 2022 prices, which is good, but also keeps the relative upward pressure down. Mr. Phipps asked if there were any questions.

Mr. Soni asked for confirmation that Policy 30 did not set limits on the amount of nuclear (in the portfolio). Mr. Phipps confirmed it did not. Mr. Soni asked about the logic for the 40% limit; hypothetically, could it go up to 60% if possible. Mr. Phipps responded that the 40% is really about risk management and leaving options open for any future new technology. There are currently three reactors; they all have great track records in terms of being reliable base-load power, but we want to make sure, from a sourcing perspective, that RMLD does not put too many eggs in one basket; the life cycle of these three reactors currently expires in 2049.

Discussion ensued about the risk and benefits of being limited to 40% and whether the motion should be changed to allow more than 40%. Ms. O'Brien noted the motion is a recommendation by the General Manager, and she would not recommend going above 40%. The RMLD should stay with the strategic plan that was put together. Staff can come back and ask again but based on 40-years' experience for portfolio building, RMLD should not put more eggs in one basket. Staff can see what happens, but that is a perfect portfolio for base. RMLD wants to balance the Seabrook with the Millstone.

Chair Small stated if there are no further questions, he would entertain a motion.

Mr. Soni made a **motion** that the Citizens' Advisory Board recommend that the Board of Commissioners vote to accept the General Manager's recommendation to add additional supply contracts from Seabrook and/or Millstone nuclear facilities such that total nuclear does not exceed 40% of RMLD's annual power supply portfolio, seconded by Mr. Kelley. **Motion carried** 3:0:1 (3 in favor, 0 opposed, 1 absent) by roll call vote of those present: Mr. Soni, aye; Mr. Kelley, aye; Chair Small, aye. Mr. Hooper was not present.

Mr. Phipps then presented information regard *Battery Storage (Slide 8)* as part of the RMLD portfolio. Staff will be presenting a proposal in January or February for additional battery storage within the RMLD network. Mr. Phipps reviewed the economic, reliability and resiliency benefits of battery storage. The chart (lower left) represents actual output from one day in September when the battery (at Station 3) was turned on. The blue line is the generator, and you can see the (corresponding) load drop. This is very good from an economic perspective in terms of peak management as well as shifting power. Staff has prepared a roadmap for placing batteries within the network and will come back to the CAB with a more detail proposal.

5. Scheduling – J. Small, Chair

- January CAB Meeting – pending confirmation of January Board of Commissioners meeting date.
- Coverage for January Commissioners Meeting – Mr. Soni will tentatively cover, pending confirmation of date for Board of Commissioners meeting.

6. Adjournment – J. Small, Chair

Mr. Kelley made a **motion** to adjourn the Citizens' Advisory Board meeting, seconded by Mr. Soni. **Motion carried** 3:0:1 (3 in favor, 0 opposed, 1 absent) by roll call vote of those present: Mr. Kelley, aye; Mr. Soni, aye; Chair Small, aye. Mr. Hooper was not present.

The meeting adjourned at 6:45 PM.

As approved on May 23, 2022.