



Town of Reading Meeting Minutes

Board - Committee - Commission - Council:

RMLD Citizens Advisory Board

Date: 2022-04-04

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. George Hooper, Secretary (Wilmington); Mr. Dennis Kelley (Wilmington); Mr. Ken Welter (Lynnfield)

Members - Not Present:

Others Present:

Staff: Ms. Coleen O'Brien, Mr. Hamid Jaffari, Ms. Wendy Markiewicz, Mr. Gregory Phipps, Ms. Kathleen Rybak

Minutes Respectfully Submitted By: Mr. George Hooper, Secretary *George Hooper*

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.

Chair Small welcomed Mr. Ken Welter as the new Lynnfield Representative.

2. General Manager's Update – C. O'Brien, General Manager

Green Communities – Ms. O'Brien reported that an omnibus bill will be coming out (within the next couple of months) and staff is hoping there will be a decision regarding Green Communities. The concept would be that each town would join Green Communities on their own. The legislation will determine whether each town would have to pay into the renewable trust as individual towns or all four together if any one of them join Green Communities.

Board Elections – Ms. O'Brien noted that Reading town elections are tomorrow (April 5). Commissioners Talbot and Pacino are both up for re-election. Staff will send out a notification with the results on Wednesday morning.

Annual Report – Ms. O'Brien noted the Annual Report will once again feature artwork from the High School Art Contest, and asked CAB members to make their selection on the artwork submitted using the link sent by Ms. Mulvaney.

Economic Development Meeting – Ms. O'Brien reported that scheduling for the economic development meeting is still pending. The concept is for the Select Board and the Board of Commissioners to come together to discuss economic development options (including use of the Ash Street campus). The CAB will be invited to join the discussion. The first phase of the process was a tour (of the property), including Station 1. Ms. O'Brien noted she had provided the assessment report on Station 1, which was done back in 2012. Additionally, there are some economic development visions on the Reading website if anyone would like to take a look at them.

Community Update – Ms. O'Brien reported that Mr. Phipps would be reporting on the Kearsarge battery agreement, and that a press release was sent out on that project.

The Elementary Art Contest awards ceremonies were held in March.

Ms. O'Brien reported that she would be retiring (effective June 30th), and that she received a legal opinion that she could post the job internally for an Interim General Manager using the existing job description; the job description cannot be changed unless there is a Board vote. The Board will then decide how they will proceed for the permanent hire. The next Commissioners meeting is April 21.

3. Integrated Resources Report – G. Phipps, Director of Integrated Resources
Materials: *Integrated Resources Report - Battery Storage and Energy Cost Snapshot*

Mr. Phipps began his presentation with a review of the proposal to add battery storage at Fordham Road (slide 3). There is currently a 2.1-megawatt DC array (built by Kearsarge Energy) that has been running at this site. The proposal is to add a five-megawatt (10-megawatt hour) battery storage system to the site. The goal of the storage system is primarily economics, specifically cost savings tied to capacity and transmission charges through peak load reduction. Mr. Phipps noted transmission costs are growing significantly, and that capacity costs are also a key factor. Capacity costs are based on one (peak) hour per year and transmission costs are based on the twelve (peak) transmission hours, one peak hour per month. RMLD works diligently to encourage customers to drop load during these peak hours, and the battery system is another mechanism to do that. This proposal is a cost-savings proposal.

For this particular configuration, the base will be charged from the grid, and not from the co-located solar array. When a peak hour is anticipated, staff would charge in the morning or early afternoon and then discharge in the late afternoon during peak hours. By discharging during peak hours, load is reduced. That load (reduction) equates to savings.

Peak reduction is an established RMLD program in terms of how it is done; this project will add another five-megawatt array to the RMLD system to aid in peak load reduction. RMLD staff has been working to lay out, over the next 2-3 years, a total of ~30 megawatts of storage systems; this is the first in a series of these projects coming down the road. Site access, safety, and permitting will be the responsibility of Kearsarge as the developer. There is some final analysis that needs to be completed, but the initial analysis looks good. This particular project will be a shared-savings structure.

Mr. Phipps noted the current view of battery systems and storage systems is that they are still a technology risk – they are still in development and prices are still coming down. Therefore, the approach on battery storage systems for now is not to own them, but to do them under a PPA structure - let someone else own the asset and take that

operation and technology risk. In exchange, the RMLD will not take as much of the savings since we are taking less risk. Staff believes this is the appropriate strategy for this project. In this case, Kearsarge will make money when RMLD saves money, hence our incentives are aligned.

Mr. Phipps then reviewed the "base case model" which outlines the investment (equipment and installation) and the "avoided cost." The agreement with Kearsarge will be a 20-year agreement. Mr. Phipps reiterated it is a five-megawatt (10-megawatt hour) system, which is important to note because it will discharge at a five-megawatt rate for two hours. The goal is to hit a single peak hour each month, and for capacity one key hour a year. The estimated average net savings to RMLD is ~\$200k per year (~\$4m over the 20-year program); there is no discount rate built into that. Mr. Phipps asked if there were any questions.

Mr. Welter asked if the CAB has reviewed the PPA? Mr. Phipps responded; the CAB does not typically review PPAs. There is a standard PPA structure, and RMLD counsel reviews them. The CAB typically looks at the big picture including the basic economics of a project.

Mr. Soni asked who owns the property. Mr. Phipps responded that the site was owned by one customer and agreed to follow-up with the name of the customer.

Mr. Soni asked (regarding the savings over 20 years) without factoring a discount rate (presumably capacity and transmission charges will increase over time) is this still expected to be a good deal? Mr. Phipps responded the worst-case scenario is RMLD misses the peak. There is never a net loss for RMLD; there is always a positive net savings (if RMLD hits the peak). As rates go up, it could be better. It will be (on average) ~\$200k (annually) out of a \$65 million budget.

Mr. Soni asked if it was standard practice not to factor in discount rates on any of the transactions; you are not looking at net present value? Mr. Phipps responded, RMLD tends not to on a shared savings model; we are going to be predicting a couple of different variables simultaneously. Typically, on an asset within the RMLD territory we don't do a discount factor. In the energy purchases, we do look at discount factors because there are often times (such as the Seabrook Solar approved in December of last year), where we actually looked at that as being a fixed rate at a higher rate over the 30 years versus a lower initial rate escalating. RMLD ended up going with the escalating rate because it saved a little bit, but it's heavily dependent upon what you assume the discount factor to be over 30 years. Mr. Soni asked that staff watch out for this going forward.

Mr. Hooper asked staff to affirm that the RMLD has no initial investment, no maintenance costs - nothing to invest in. It is the PPA with Kearsarge. Mr. Phipps responded, that was exactly correct. RMLD does not have a lot of risk. As shown on the slide, the avoided costs are just under a million dollars. RMLD is going to share about \$700k of that with Kearsarge, and RMLD will keep about 23% (or \$214k). As some point in time, the risk associated with the technology may be lower. At that time, RMLD may want to make the investment up front and own the asset in order to capture all of the savings.

Chair Small stated that he would accept a motion if there were no additional questions or comment.

Mr. Kelley made a **motion** that the Citizens' Advisory Board recommend that the Board of Commissioners vote to accept the General Manager's recommendation to contract with Kearsarge Energy under an energy storage PPA with shared savings, associated with a new 5 MW, 10 MWH battery system to be installed at a Fordham Road, Wilmington, Massachusetts, site, pending final interconnect study and appropriate permitting. Mr. Soni seconded the motion.

Mr. Hooper asked about seeing the PPA or a breakdown of it before voting. Mr. Phipps responded that the table on the left (of the slide) provides a good idea of what the numbers look like. This PPA has not yet been drafted; it is a proposal. The PPA will go through legal review before it is executed. Staff is looking for approval to move forward on the project. As with any other energy, storage, and/or asset project, it will get a lot of legal review. Typically, the responsibility for the details of the PPA resides with staff and legal. The CAB (and BOC) basically provide guardrails within which to operate, and staff executes within those guardrails.

Chair Small mentioned as a point of information, that the Board of Commissioners (at their meeting a week and a half prior) approved a motion to approve this (proposal) pending the CAB vote. Chair Small asked if there were any other comments before the vote.

Hearing no further discussion, the **motion carried 5:0:0** (five in favor, 0 opposed, 0 absent) by a roll call vote of those present: Mr. Soni, aye; Mr. Hooper, aye; Mr. Welter, aye; Mr. Kelley aye; Chair Small, aye.

Mr. Phipps then reviewed the RMLD Wholesale Energy Cost Forecast (Slide 4), which shows a snapshot of the current RMLD portfolio, and some of the analysis that is done on a regular basis in anticipation of each new energy contract. Reviewing the chart on the left, Mr. Phipps noted the "open market" line (dark blue) is the forecast associated with open market prices (LMP); this is the best estimates (right now) in terms of what energy is going to cost going forward. The "all RMLD" line (purple) shows RMLD's average cost of energy. The purple line is below the dark blue line, which shows RMLD has done a good job of keeping RMLD costs lower than market. Staff is able to negotiate lower prices by making a long-term commitment. Mr. Phipps noted the dotted lines are the current, actual (combined) contracted costs; "all RMLD" is all the aggregated. Based on Policy 30, RMLD buys the renewable energy certificates (RECs) with the power (associated certificates) and then retires a portion of those certificates over time to meet state compliance and also avoiding rate shock. By 2050 RMLD will be retiring all of those certificates. This is important because the difference between the dashed line and the solid line is the net cost. In the initial years, RMLD is going to be selling most of the certificates. This year, 2022, RMLD is retiring 26% (based on kWh sales). Fifty percent of RMLD's 2022 power portfolio has certificates associated with it, so that additional 24% will be sold on the open market after 26% are retired. The solid lines are the realized or net costs to RMLD, and the dashed lines are the initial cost. For the next ten or so years, certificate sales are going to be noteworthy – a couple of million dollars a year. Over time, as RMLD retires more and more, certificates sales are going to disappear. RMLD must retire all of the certificates by 2050.

Mr. Phipps noted some key takeaways: Each non-carbon source has different characteristics in terms of when they generate power and when they don't. RMLD must match that intermittent generation into the RMLD portfolio. Nuclear is steady (base) load, which is why it will become a third of the RMLD portfolio. Another key takeaway is that there is a fairly steady upward pressure on prices over time; by doing long-term supply contracts RMLD can dampen that upward pressure. Mr. Phipps then entertained questions.

Mr. Soni thanked Mr. Phipps for providing this information. Mr. Soni noted the spot energy prices are very high; as shown at around \$80/megawatt hour (annual average). RMLD prices are less than half of that today, and RMLD exposure to the spot price is about 10% of the load. Mr. Phipps responded that RMLD (open market) has historically been around 15%, but this year staff tried to tighten it closer to 10%. There is a lot of art and science associated with the timing in terms of purchases. We know, due to the Russia/Ukraine war that there is very high upward pressure (on pricing). Therefore, since RMLD had exposure in the 20-25% range, staff has been working to fill those in and bring it back down to the 10% range. RMLD would normally have let that float

because we know in the spring and fall prices tend to dip down while in the winter and summer they tend to peak. Given today's context, RMLD is purposely less open. Mr. Soni noted the numbers are actual costs that are going to end up higher than what is noted (on the slide) because of the current exposure to a high rate. Mr. Phipps responded, yes, and it changes every year. Mr. Soni asked for confirmation that the difference between the dash line and the solid line is the sale of the RECs. Mr. Phipps responded that that was correct. Mr. Soni thanked Mr. Phipps and noted the information is very helpful.

4. Engineering & Operations Report: Supply Chain Update – H. Jaffari, Director of Engineering & Operations

Materials: *Engineering & Operations Report - Supply Chain Update*

Mr. Jaffari began his presentation with a review of Slide 2 (Transformers – Key Points) noting the recent transformer bid revealed increases in prices and long lead times for delivery. Market conditions are expected to continue at least through 2023 but may go well into 2025. RMLD must purchase transformers under the current volatile market conditions in order to continue to support system growth, new business, maintenance, and emergency transformer replacement. Mr. Jaffari then reviewed the Aged Transformer Replacement Strategy (Slide 3) including the transformer lifespan matrix, which prioritizes transformer replacement based on age, load, and physical conditions. The transformer replacement program ensures network reliability and avoids excessive cost of oil leaks and transformer failures

Mr. Jaffari then reviewed Slide 4: Transformer Lead Time and Pricing, which summarizes the results of the recent transformer bid, including the pricing and (delivery) lead-time increases. These increases (and delays) will impact RMLD business - the ability to keep up with demand and maintenance programs. Mr. Jaffari then reviewed Slide 5: Supply Chain Impact on Maintenance & Capital Projects, noting RMLD's current policy is to maintain 10% of the total number of transformers system-wide, in stock at any given time; approximately 9% is currently available in stock. The limited transformer supply will impact progress on certain capital improvement projects. Mr. Jaffari noted the current transformer inventory is estimated to last through November/December of 2022 depending on emergencies and how many overloaded transformers need to be replaced.

Mr. Jaffari then reviewed Slide 6: New Strategy – Transformer Replacement. Currently, RMLD inspects pad-mount transformers system-wide (~700) annually and replaces between 100-180 transformers annually as part of the Aged Transformer Replacement program. With the new strategy, staff will reprioritize transformer replacement based on the age, load, and physical condition matrix, but adding to those criteria leaking/seeping oil, or if needed due to emergency. If a transformer is not leaking/seeping oil, it probably will not be replaced.

Mr. Jaffari noted staff will be very conservative installing transformers and reviewed the "utilization categories" showing how the current inventory will be used. Last year RMLD saw the highest level of transformers being changed out (approximately 180), but this year that number will be much less. Mr. Jaffari noted staff will evaluate any bulk or cooperative purchase initiatives available with other MLPs or through NEPPA.

Mr. Hooper asked about the current status of the Aged Transformer Replacement Program. Mr. Jaffari responded that it is a moving target; currently there are ~1,400 transformers 25-years or older. As they are replaced, there are others that move (age) onto the list to be replaced. Mr. Jaffari talked about the progress made to date with the Aged Transformer Replacement Program, some of the reasons transformers fail, and the impact of load on transformers.

Mr. Soni asked about the impact relative to the capital budget. Mr. Jaffari responded that the in-stock transformers are slated for some of the ongoing projects, but we are

going to have to slow down until the next batch (of transformers) are received. Approximately \$750k was budgeted for 2022 for transformer purchases for all categories (projects); it is now going to be closer to \$1.9 to \$2 million based on the current bid. RMLD needs to determine whether or not to spend more money (than budgeted) in order to get in the manufacturing queue/production line. Delivery of these transformers is delayed to December of 2022 or well into next year. The ~300 (in-stock) transformers are going to be gone by then. The group discussed some of the supply chain issues specific to transformers.

Mr. Jaffari then reviewed Slide 7: Additional Supply Chain Considerations, which provides a snapshot of some of the lead time for other items that are on order. In summary, prices and lead time are going up and RMLD needs to be proactive rather than reactive with ordering.

Chair Small stated if there was no other discussion, he would accept a motion.

Mr. Soni made a motion that the Citizens' Advisory Board recommend that the RMLD Board of Commissioners vote to accept the General Manager's recommendation due to unprecedented and emergency situations to award BID IFB 2022-10 and IFB 2022-09 for pad mounted and pole mounted transformers from various vendors and distributors at approximately \$2 million in accordance with Massachusetts General Law Chapter 164. Mr. Hooper seconded the motion. **Motion passed** 5:0:0 (5 in favor, 0 opposed, 0 absent) by roll call vote of those present: Mr. Hooper, aye; Mr. Soni, aye; Mr. Kelley, aye; Mr. Welter, aye; Chair Small, aye.

5. The next meeting of the CAB was scheduled for April 28th at 6:00 PM. Mr. Soni agreed to cover the Board of Commissioners meeting scheduled for April 21st.

6. Executive Session – J. Small, Chair

Mr. Hooper made a **motion** that the Citizens' Advisory Board go into Executive Session pursuant to Massachusetts G.L. c.164 section 47D, exemption from public records and open meeting requirements in certain instances, to consider purchase, exchange, lease or value of real property if the chair declares that an open meeting may have a detrimental effect on the negotiating position of the public body. Mr. Soni seconded the motion. **Motion passed** 5:0:0 (5 in favor, 0 opposed, 0 absent) by a roll call vote of those present: Mr. Hooper, aye; Mr. Soni, aye; Mr. Kelley, aye; Mr. Welter, aye; Chair Small, aye.

7. Adjournment – J. Small, Chair

Mr. Hooper made a **motion** the Citizens' Advisory Board adjourn regular session. Mr. Kelley seconded the motion. **Motion passed** by roll call vote of those present: Mr. Kelley, aye, Mr. Hooper, aye, Mr. Welter, aye; Mr. Soni, aye; Mr. Small, aye.

The meeting adjourned at 7:38 PM

As approved on October 27, 2022.