



230 Ash Street  
P.O. Box 150  
Reading, MA 01867-0250

Tel: (781) 944-1340  
Web: www.rmlld.com

## AGENDA

### READING MUNICIPAL LIGHT DEPARTMENT CITIZENS' ADVISORY BOARD (CAB) MEETING

WEDNESDAY, JANUARY 17, 2018

6:30 PM

at

230 Ash Street, Winfred Spurr/Audio Visual Room  
Reading, MA 01867

1. **Call Meeting to Order** – G. Hooper, Chair
2. **Approval of Minutes** – G. Hooper, Chair  
*Suggested Motion:* Move that the Citizens' Advisory Board approve the Minutes of the May 24, 2017, August 16, 2017, and October 25, 2017, meetings as written.
3. **General Manager's Update** – C. O'Brien, General Manager
  - Storm Report
4. **Proposed Rate for Solar Choice Program** – J. Parenteau, Director of Integrated Resources Division  
*Suggested Motion:* Move that the Citizens' Advisory Board recommend to the RMLD Board of Commissioners the adoption of the Solar Choice Rate, MDPU #278, dated to be effective February 1, 2018, on the recommendation of the General Manager.
5. **Reliability Study Update** – H. Jaffari, Director of Engineering & Operations
6. **Organizational Study Update** – C. O'Brien, General Manager
7. **Next Meeting** – G. Hooper, Chair
8. **Executive Session** – G. Hooper, Chair  
*Suggested Motion:* Move that the Citizens' Advisory Board go into Executive Session based on Chapter 164, Section 47D exemption from public records and open meeting requirements in certain instances, to discuss competitively sensitive issues, and return to regular session for the sole purpose of adjournment. *Note: Roll call vote required.*
9. **Adjournment** – G. Hooper Chair

This Agenda has been prepared in advance and does not necessarily include all matters which may be taken up at this meeting.



## Town of Reading Meeting Minutes

### Board - Committee - Commission - Council:

RMLD Citizens Advisory Board

Date: 2017-05-24

Time: 6:30 PM

Building: Reading Municipal Light Building

Location: Winfred Spurr Audio Visual Room

Address: 230 Ash Street

Session: Open Session

Purpose: General Business

Version: Draft

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

Mr. George Hooper, Chair (Wilmington); Mr. Dennis Kelley, Secretary (Wilmington); Mr. Jason Small (North Reading)

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

Mr. Neil Cohen (Reading)

#### **Others Present:**

Mr. Philip Pacino, Board of Commissioners  
Ms. Coleen O'Brien, Ms. Wendy Markiewicz, Ms. Jane Parenteau,  
Ms. Kathleen Rybak, Mr. Mayhew Seavey, Principal, PLM Electric Power Engineering

**Minutes Respectfully Submitted By:** Mr. Dennis Kelley, Secretary

---

#### Topics of Discussion:

1. Call Meeting to Order – G. Hooper, Chair  
Chair Hooper called the meeting of the Citizens' Advisory Board to order at 6:30 PM and noted that the meeting was being audio recorded.
2. Proposed Rate Adjustment – J. Parenteau, Director of Integrated Resources and M. Seavey, Principal, PLM  
*Materials: Electric Rate Design Strategies Presentation to the Citizens' Advisory Board May 24, 2017; and FY18 – Proposed Rate Increase- Comparative Rates Present/Proposed (handout)*

In follow-up to the April 12<sup>th</sup> CAB presentation on the Cost of Service Study, Mr. Seavey presented the recommended Electric Rate Design Strategies. Ms. Parenteau distributed and reviewed the FY2018 – Proposed Rate Increase – Comparative Rates Present/Proposed spreadsheet, which illustrates the impact of the recommendations on the various rate classes. Ms. Parenteau noted that usage will have an impact depending on the rate class. To clarify the "phasing-in" of the rate, in order to get to the zero percent rate of return (for residential), a 4.4% increase in the residential base rate is needed. That 4.4% increase is spread over five years. For FY18, the increase in base rates only (distribution rates) is 1%. The purchase power cost (a pass-through) represents 60% of the bill and increases approximately 5%.

Ms. O'Brien stated that RMLD will aim to align all subsidies over the next three-five years. The Board will vote on FY18 rates, with a strategy in place to correct the subsidies over time. RMLD must also adjust for solar generation - the concept of a customer being completely off the grid is not a reality when RMLD must maintain the

poles and the structures. We must constantly move to see how the franchise is being impacted by what's happening in the industry. Therefore, we move it in a granular way so that when things start happening we won't require a large increase.

Chair Hooper asked Commissioner Pacino if he could provide any input from the Board of Commissioners. Commissioner Pacino stated that the Board has gotten a presentation, but has not taken any action. At the meeting, the Board was generally in favor of moving forward with the recommendations. No one spoke negatively against it.

Mr. Kelley expressed concern with the increases, but acknowledged there is not much control over the pass-through costs.

Ms. O'Brien asked Ms. Parenteau to address the factors that led to the redesign. Ms. Parenteau stated that the Department is undertaking long-term strategic planning. Debt service from the long-term contracts, (Seabrook and Millstone) is scheduled to be paid off in 2018, which will result in approximately \$1m worth of decreases. Capacity is peaking, but is projected to go down. Transmission costs continue to climb significantly. Fuel costs are projected to come down and stabilize. Natural gas is at an all-time low. We cannot look at any one "bucket" in isolation. When you put all the factors together, the hope is that in the next 1-3 years there will be either relatively minor increases or some decreases depending on the overall picture. We are trying to be transparent by unbundling our rates and looking at the different components.

Chair Hooper stated that he understood the need for the rate adjustments completely, but noted that this has an impact across the board; the rate payers are seeing residential increases and paying the tax dollars for the schools that are going up as well. The group discussed how the rates compare to both the IOUs and other municipals. Chair Hooper then called for a motion.

Mr. Small made a motion that the RMLD Citizens' Advisory Board recommend to the RMLD Board of Commissioners the adoption the rates MDPU numbers #269, 270, 271, 272, 273, 274, 275 and 276 effective July 1, 2017, on the recommendation of the General Manager, seconded by Mr. Kelley. Hearing no further discussion, **motion carried 3:0:1** (3 in favor, 0 opposed, 1 absent).

3. Selection of Vice Chair – G. Hooper, Chair  
Item tabled until all members are present.
4. Northeast Public Power Association (NEPPA) Annual Conference – G. Hooper, Chair

The group discussed the availability of CAB members to attend this conference.

Mr. Small made a motion to approve all four CAB members to attend the 2017 NEPPA Conference, seconded by Mr. Kelley. Hearing no further discussion, **motion carried 3:0:1** (3 in favor, 0 opposed, 1 absent).

5. Next meeting – G. Hooper, Chair  
The next CAB meeting was scheduled for June 21, 2017, at 6:30 PM.
6. Executive Session – G. Hooper, Chair

Mr. Kelley made a motion that the Citizens' Advisory Board go into Executive Session based on Chapter 164, Section 47D exemption from public records and open meeting requirements in certain instances, to discuss competitively sensitive issues and return to regular session for the sole purpose of adjournment, seconded by Mr. Small. Hearing no further discussion, **motion carried 3:0:1** (3 in favor, 0 opposed, 1 absent), by a poll of members present: Mr. Small aye; Chair Hooper, aye; Mr. Kelley, aye. Mr. Cohen was not present

7. Adjournment – G. Hooper, Chair  
Mr. Kelley made a motion to adjourn the Citizens' Advisory Board meeting, seconded by Mr. Cohen. Hearing no further discussion, **motion carried 3:0:1** (3 in favor, 0 opposed, 1 absent).

The Citizens' Advisory Board Meeting adjourned at 8:02 PM.

As approved \_\_\_\_\_

DRAFT



## Town of Reading Meeting Minutes

### Board - Committee - Commission - Council:

RMLD Citizens Advisory Board

Date: 2017-08-16

Time: 6:30 PM

Building: Reading Municipal Light Building

Location: Winfred Spurr Audio Visual Room

Address: 230 Ash Street

Session: Open Session

Purpose: General Business

Version: Draft

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

Mr. George Hooper, Chair (Wilmington); Mr. Jason Small, Vice Chair (North Reading); Mr. Dennis Kelley, Secretary (Wilmington); Mr. Neil Cohen (Reading)

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

#### **Others Present:**

Mr. Philip Pacino, Chair, Board of Commissioners, Ms. Coleen O'Brien, Mr. Hamid Jaffari, Ms. Jane Parenteau, Ms. Kathleen Rybak

**Minutes Respectfully Submitted By:** Mr. Dennis Kelley, Secretary

---

### Topics of Discussion:

1. Call Meeting to Order – G. Hooper, Chair  
Chair Hooper called the meeting of the Citizens' Advisory Board to order at 6:30 PM and noted that the meeting was being audio recorded.

2. Approval of Minutes – G. Hooper Chair  
Materials: Draft Minutes from the April 5, 2017, CAB meeting.

Mr. Cohen made a motion that the Citizens' Advisory Board approve the Minutes of the April 5, 2017, meeting as written, seconded by Mr. Kelley. Hearing no further discussion, **motion carried 4:0:0** (4 in favor, 0 opposed, 0 absent).

3. Reliability Study Update – H. Jaffari, Director of Engineering & Operations  
Materials: Booth and Associates – 2015 Reliability Study – Recommendations Spreadsheet

Mr. Jaffari reported the completion of Items 2, 45, 48, 49 and 68-71 (as noted in red) since the last report to the CAB. With the completion of Items 2 and 68-71, Substation 5 should be operational until the new substation in Wilmington is built.

Chair Hooper asked about the progress on the new Wilmington substation. Mr. Jaffari reported that potential land has been identified on Ballardvale Street. The building to land ratio at this site is 36%; Town requirement is 35%, and therefore, a variance may be required. A preliminary design and evaluation of the site has been done, and NationalGrid has said they can extend the transmission line. Additionally, RMLD may qualify as a PTF (pool transmission facility). This means RMLD will own the wire that attaches to the 115kV line and will not have to pay the local network charges. This

will save approximately half a million dollars a year. NationalGrid does not usually award PTF's anymore, but they are entertaining this option.

4. Organizational Study Update – C. O'Brien, General Manager  
Materials: Leidos – 2015 Organizational Study Spreadsheet

Ms. O'Brien reviewed the progress on the Organizational Study recommendations. Some items have been completed, and in other cases we may be addressing items in a slightly different cyclic manner than what Leidos had suggested. Status changes of key items include:

- **Establish Planning Culture:** The Strategic Plan will be addressed in calendar year 2017. In order to complete the Strategic Plan, career development plans, job descriptions, etc., needed to be up-dated. We will set up teams to put together a "strategic plan" for each of the divisions, which blends up into the Plan for presentation to the Commissioners. The Electric System Master Plan is near completion. Mr. Jaffari will present the updated technology road map at a future CAB meeting, including short and long-term planning on the technical side.
- **Develop Effective Sustainable Workforce:** Most of the career development and succession plans were done as part of the organizational restructure. The job descriptions are approximately 70% complete. The performance review process is in progress; we have been developing the roadmaps, laying out the system - all the policies and procedures, which leads into employee career development plans and the review process. We expected there would be a delay of about a year and a half to two years, but we are back on track.

We continue to fill a number of vacancies (due to retirement, resignations, etc.), but there are still many vacancies including Engineering, IT, and IRD. Chair Hooper asked about Engineering staffing noting it has been a while since there was a full compliment. Ms. O'Brien reported that she is looking at alternative recruiting means. Based on what Leidos said the organizational structure was supposed to be, we have never had a full compliment. We now have five engineering positions and each can progress to system engineering on their own merit. Each engineer will know the system intimately. Additionally, each of the five engineers has specialty areas, i.e., GIS, NERC, cyber security, overhead and underground, etc., but then they are all equal on the system. We currently have three engineers that we are working vigorously to train.

- **Improve Organizational Effectiveness:** We have developed a quasi work order system (SpryPoint) prior to going to a real work order system. There are tablets in most of the line trucks, and we are integrating GIS, time and asset tracking, and GIS collection. We completed one external/internal communication plan last year. Another communication plan and an employee survey will be completed.
- **Develop Leadership Capabilities:** All managers' CDPs now include appropriate leadership training (project management, conflict management, etc.). Cross-divisional management training occurs weekly – senior managers know exactly what the other senior managers are doing. That is pulling everything together so that when one manager acts, they know the impact on other divisions.
- **Establish Project Management Culture:** Performance expectations relative to project management are part of job descriptions and the review process.
- **Ensure Competitively Priced Services:** This was recently addressed in the rate analysis/redesign with PLM.
- **Improve Financial Planning and Risk Management:** We continue to update the policies. Accounting has been reorganized, and they are working on the financial and accounting business processes.

- Strengthen Safety Culture: This year an OSHA training company will review everything related to illness and injury.
- Establish Culture of Compliance: We are not yet at a point where we are able to assign a Compliance Manager to bring this together.
- Focus on Asset Management: Implementation of SpryPoint is phase one; the work order system/asset management plan will probably go into Cogsdale.
- Leverage Geographical Information Systems: The GIS completion date is September 1. Work will then begin on some of the macro computer programs (i.e., load management, etc.). GIS training is ongoing.
- Formalized and Enhance Work Management: Work spaces has been reconfigured and space is now being utilized efficiently. Most of the carpeting and some chairs, are being replaced. Any type of hazard is being fixed, but we are very cognizant of spending money on the building if not needed. The Control Room rebuild is in progress.

Ms. O'Brien concluded the update and asked for any suggestions of things that are not included in the Leidos report. The group agreed that the report seems complete.

5. Proposed Rate: Electric Vehicle Charging Station – J. Parenteau, Director of Integrated Resources

Materials: Recommendation: Electric Vehicle Rate, and DPU Filing Sheet

Ms. Parenteau presented the recommendation for an Electric Vehicle Rate to be used for RMLD charging stations. The distribution charge is based on depreciation expense on the capital costs (charging station and transformer), as well as estimated system average operating and maintenance cost. The current sum of charges when filed will be \$0.2158, which equates to about \$1.81 per gallon.

RMLD has received a grant from Mass DEP for a workplace charging station at the Ash Street location. The grant will pay 50% of the charging station cost; RMLD will pay the balance and the installation costs. RMLD has submitted additional grant applications through the Mass DEP for ten charging stations located throughout the service territory. The Mass DEP is evaluating proposals and awarding grants on a continual basis.

Mr. Kelley made a motion that the RMLD Citizens' Advisory Board recommend to the RMLD Board of Commissioners the adoption of the electric supply equipment rate MDPU number 277, effective November 1, 2017, on the recommendation of the General Manager, seconded by Mr. Small. Hearing no further discussion, **motion carried 4:0:0** (4 in favor, 0 oppose, 0 absent).

6. Sub-Committee for the Payment to the Town – G. Hooper, Chair

Chair Hooper reported that the Sub-Committee for the Payment to the Town of Reading is looking for two members from the CAB to serve on the Sub-committee. Chair Pacino noted that this request for the Sub-committee to meet came from the Reading Town Meeting. Chair Pacino provided some historical background on this Sub-committee. The Town would like a report from the Sub-committee in November. Chair Pacino and Mr. Stempeck will represent the Commission. Ms. O'Brien reported that she has met with the Reading Town Manager to get a better understanding of what they are requesting. The impression was that they are looking for a formula that eliminates large fluctuations in the payment from year to year, so that the Town can expect a certain amount for annual budgeting purposes.

Chair Hooper and Mr. Cohen agreed to serve on the Sub-committee. Mr. Kelley asked if there was any historical data on the payments to the four towns. Ms. O'Brien agreed to provide that information to the CAB members. Ms. O'Brien also noted that APPA (American Public Power Association) has examples of formulas used to calculate payment in lieu of taxes, which is typically an "above the line" payment.

7. Selection of Vice Chair – G. Hooper Chair

Chair Hooper called for nominations for the vacant Vice Chair position. Mr. Kelley nominated Mr. Small. Mr. Small accepted the nomination.

Mr. Kelley made a motion to appoint Mr. Small as Vice Chair, seconded by Mr. Cohen. Hearing no further discussion, **motion carried 4:0:0** (4 in favor, 0 opposed, 0 absent).

8. Next Meeting – G. Hooper, Chair

The next meeting of the CAB was scheduled for September 20. Additional future meetings were scheduled for October 25, November 15, and December 13.

Mr. Kelley asked for an update on the Community Solar projects (estimated vs. actual generation as well as up-time since the projects went live). Ms. Parenteau agreed to provide that information. Mr. Kelley also mentioned that he has been getting a lot of questions and comments regarding the rate increases. Ms. Parenteau agreed to put together a write-up addressing key points relative to the rate structure/increases. CAB members should feel free to refer customers with questions regarding their rates and/or energy efficiency measures to Integrated Resources.

Mr. Cohen made a motion to adjourn the Citizens' Advisory Board meeting, seconded by Mr. Small. Hearing no further discussion, **motion carried 4:0:0** (4 in favor, 0 opposed, 0 absent).

The Citizens' Advisory Board Meeting adjourned at 7:21 PM.

As approved on \_\_\_\_\_





## Town of Reading Meeting Minutes

### Board - Committee - Commission - Council:

RMLD Citizens Advisory Board

Date: 2017-10-25

Time: 6:30 PM

Building: Reading Municipal Light Building

Location: Winfred Spurr Audio Visual Room

Address: 230 Ash Street

Session: Open Session

Purpose: General Business

Version: Draft

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

Mr. George Hooper, Chair (Wilmington); Mr. Jason Small, Vice Chair (North Reading); Mr. Dennis Kelley, Secretary (Wilmington); Mr. Neil Cohen (Reading); Mr. Vivek Soni (Lynnfield)

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

#### **Others Present:**

Mr. Philip Pacino, Chair, Board of Commissioners; Ms. Coleen O'Brien, Ms. Joyce Mulvaney, Ms. Jane Parenteau, Ms. Kathleen Rybak, Mr. William Seldon

**Minutes Respectfully Submitted By:** Mr. Dennis Kelley, Secretary

---

#### **Topics of Discussion:**

1. Call Meeting to Order – G. Hooper, Chair

Chair Hooper called the meeting of the Citizens' Advisory Board to order at 6:30 PM and noted that the meeting was being audio recorded.

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

Ms. O'Brien updated the CAB on various community events that RMLD has participated in or sponsored over the past few months, as well as some upcoming Community Relations events and initiatives.

Ms. O'Brien reported that four key positions have been filled: one Engineer; one Lead Technician; one Systems Analyst in IT; and the General Line Foreman have been hired.

Chair Hooper asked if the holiday LED lights would be available to the towns this year. Ms. O'Brien confirmed that they would be available, and that Ms. Mulvaney would be reaching out to each of the towns.

3. Approval of Minutes – G. Hooper Chair

Materials: Draft Minutes from the April 12, 2017, CAB meeting.

Mr. Cohen made a motion that the Citizens' Advisory Board approve the Minutes of the April 12, 2017, meeting as written, seconded by Mr. Kelley. Hearing no further discussion, **motion carried 5:0:0** (5 in favor, 0 opposed, 0 absent).

4. Power Supply Risk Management Strategy – J. Parenteau, Director of Integrated Resources Division  
Materials: Powerpoint Presentation

Ms. Parenteau presented a Risk Management Strategy for the purchase of power supply agreements, which builds on the current laddering and layering strategy used by RMLD. Currently, RMLD goes out to bid annually for the open portion (approximately 25%) of the total power supply requirements. Under the proposed strategy, RMLD will build on the current strategy to further mitigate the risk and increase the ability to secure lower pricing. Rather than looking at four-year contracts, once annually, the revised strategy would look four to five years going out, at monthly increments throughout the year. Pricing in certain months hit different thresholds. When certain price thresholds are hit, we are asking for the ability to lock in (or secure) that lower pricing, as opposed to a one-time opportunity (annually). Price and time targets will be monitored to secure pricing/contracts.

Ms. O'Brien noted that this is standard refinement that most utilities are utilizing. We are trying to capture the volatility of the market. Ms. Parenteau noted that RMLD will be partnering with somebody who is in the market daily to monitor our benchmarking models.

Mr. Cohen asked about reduced legal expenses, as noted, under this revised model. Ms. Parenteau stated that we will be signing a master agreement, which will allow us to transact. The master agreement will have the same protections, but will have confirmation of the smaller quantities. That should reduce the legal costs of negotiating specific contracts for each transaction.

Chair Hooper asked if staff would provide a report to show the cost benefit of this model. Ms. Parenteau noted that staff will report back to the Boards periodically to summarize on the results of a series of transactions.

Mr. Cohen made a motion that the Citizens' Advisory Board recommend to the RMLD Board of Commissioners to accept the Risk Management Strategy as presented, and authorize the General Manager to enter in purchase power agreements that satisfy the criteria set forth in the Risk Management Strategy, seconded by Mr. Kelley. Hearing no further discussion, **motion carried 5:0:0** (5 in favor, 0 opposed, 0 absent).

5. Presentation of RMLD Financial Status – P. Pacino, Chair, RMLD Board of Commissioners  
Materials: RMLD/CAB Payment to the Town of Reading

Commissioner Pacino shared the presentation on the RMLD Financial Structure that was prepared for the Sub-committee on the Payment to the Town of Reading. The numbers presented are based on the Budget that was voted by the CAB and the Commission previously. It is anticipated that "Rates" will likely decrease 1-3% each year going forward due to technology changes. The Commission is looking at other revenue streams (including solar and fiber). The above the line payments represents 2% of net assets, which is divided among the towns based on usage. The return on investment to the Town of Reading is based on the annual CPI (a formula that was originally set in 1994). The Town Meeting has asked the subcommittee to review this payment. It is the intention of the Commission that the contingency (\$1,064,620) could potentially go to the OPEB (other post-employment benefits) liability. Chair Pacino noted that the Sub-committee met on September 27, and had some preliminary discussions.

Ms. O'Brien noted that the presentation was a snapshot in time, and the current rate of return is at 8%, due to the amount of maintenance and infrastructure that needs to be addressed. However, it may not always be the recommendation to stay at 8%. When we get to the level of maintaining, it would probably be the recommendation of the General Manager to lower that return on investment. Chair Pacino noted that economics will also impact those numbers.

Chair Hooper stated that as the Wilmington Representative and a rate-payer, he would not be in favor of constantly approving an 8% ROI.

6. FY19 Budget Process – C. O'Brien, General Manager

Ms. O'Brien reported that staff has begun the FY19 budget process. The Operating and Capital Budgets will be presented to the CAB over two meetings. Budgets should be distributed to the CAB by March 31<sup>st</sup>, with CAB meetings early in April. Budgets then go to the Board for review and approval, with a July 1 effective date. Ms. O'Brien asked if CAB members had any request for the Budget process.

Mr. Kelley asked that all relevant staff be present at the budget presentations in order to fully address questions that may come up relative to the projects/budgets.

7. Next Meeting – G. Hooper, Chair

The next meeting of the CAB will be November 15<sup>th</sup>. The December meeting is scheduled for the 13<sup>th</sup>.

Mr. Cohen made a motion to adjourn the Citizens' Advisory Board meeting, seconded by Mr. Small. Hearing no further discussion, **motion carried 5:0:0** (5 in favor, 0 opposed, 0 absent).

The Citizens' Advisory Board Meeting adjourned at 7:18 PM.

As approved on \_\_\_\_\_

**BOOTH AND ASSOCIATES - 2015 RELIABILITY STUDY - RECOMMENDATIONS**

CONSULTANT RECOMMENDATION			YEAR	COST (Booth Estimate)	RECOMMENDATION		STATUS	RMLD WORK PLAN
					ACCEPTED	ALTERNATE SOLUTION		
1	BOOTH	Replace cable trench covers at Sub 4 (should be expense, but most put large investments in capital)	2015-16	\$100,000	✓		completed	
2	BOOTH	Sub 5 bus duct from transformer to switchgear has reached the end of useful life and should be replaced with the switchgear replacement	2015-16	\$400,000		✓	completed	
3	BOOTH	Replace fence at Sub 4 and fix grounding issues	2015-16	\$100,000	✓		completed	
4	BOOTH	Rebuild pole line along Lowell Street	2015-16	\$375,000	✓		completed	
5	BOOTH	Complete AMI Upgrade and RF Mesh Network	2015-16	\$350,000	✓		in progress	Five gateways installed. Relays installed. Additional meters in stock. Working on communicating issue with (1) deployed meter.
6	BOOTH	Implement GIS Upgrade Program	2015-16	\$350,000 - \$750,000	✓		in progress	GIS asset survey is in-progress
7	BOOTH	Implement Arc Flash Study Analysis	2015-16	\$30,000	✓		completed	
8	BOOTH	Develop construction standards	2015-16	in-house	✓		in progress	
9	BOOTH	Update Joint-Use Agreement with Verizon	2015-16	in-house	✓		in progress	
10	BOOTH	Replace bushings on Sub 4 transformer.	2015-16	\$150,000	✓		completed	
11	BOOTH	CT wiring at Sub 3 should be fixed. The CT circuits should only be bonded on grounding in exactly one spot	2015-16	O&M	✓		completed	CT's are grounded in only one location.
12	BOOTH	Sub 3 has NO under-frequency trips. Relay is not programmed to trip.	2015-16	O&M		✓	completed	Station 3 has UF capability. RMLD is in compliance with ISO's UF requirement.
13	BOOTH	Fence grounding is not up to code@ Station 4. Fabric and barbed wire should be grounded.	2015-16	O&M	✓		completed	
14	BOOTH	Earth/gravel around fence at Sub 5	2015-16	O&M	✓		completed	
15	BOOTH	Interface CIS with GIS platform	2015-16	in-house	✓		in progress	GIS Data collection is in-progress
16	BOOTH	Create Milsoft Windmil® model	2015-16	in-house	✓		in progress	Being done in conjunction with GIS collection.
17	BOOTH	Complete SCADA software and hardware upgrade	2015-17	\$350,000	✓		in progress	nDimensions cyber security software complete.
18	BOOTH	Upgrade main feeder of Circuit 5W9 to 795 to address voltage and conductor capacity issues (1.6 miles)	2015-17	\$240,000	✓		in progress	The first 3000' has been reconducted. This work can only be done during the fall/winter months. May have a hurdle with Verizon and pole replacements.
19 (1)	BOOTH	Upgrade UG circuit 3W5, 3W13, 4W9, 3W14, 4W14, 4W16, 4W23, 4W24, 4W28, 4W30, 5W4 exits to parallel 750 Cu	2015-19	\$850,000		✓		Can't parallel up the feeder get-a-ways at Station 4 and Station 5, no spare conduits available. Can't parallel up the feeder get-a-ways at Station 3, no room for the second set of cables in the back of the switchgear. Solution: Load relief by feeder switching and/or new Wilmington Substation.
20	BOOTH	Replace breakers at Sub 4 due to age and condition	2015-20	\$3,000,000	✓		completed	All 26 breakers were replaced by 1/10/2016.
21	BOOTH	Pole inspection and replacement program. RMLD currently inspects 10% of RMLD-owned poles per year. Negotiate with Verizon to address Verizon-owned poles. Total 13,000 poles.	2015-24	\$9,000,000	✓		in progress	FY: 2015 /2016/2017/2018 inspections completed. Pole replacement in-progress.
22	BOOTH	Continued implementation of Grid Modernization Plan (GMP)	2015-24					
		• Outage Management (OMS)		\$100,000	✓		in progress	OMS installed waiting for GIS overhaul and AMI integration
		• Transformer Loading Management (TLM)		\$100,000	✓		in progress	
		• Demand Response (DR)		\$100,000	✓		in progress	
		• Demand Side Management (DSM)		\$100,000	✓		in progress	
		• Distributed Generation Program		\$11,000,000	✓		in progress	
23 (1)	BOOTH	Upgrade UG circuit exit 4W7 to parallel 750 Cu	2016	\$70,000		✓		Can't parallel up the feeder get-a-way at Station 4, no spare conduits available. Solution: Load relief by feeder switching and/or new Wilmington Substation.
24	BOOTH	Upgrade main feeder for Circuit 5W5 to 795 to address voltage and conductor capacity issues (2.5 miles)	2016-17	\$375,000	✓			Change construction years to FY17, FY18 and FY19. Hurdle: Verizon pole replacement area
25	BOOTH	New Wilmington Substation (land acquisition and design)	2016-17	\$750,000	✓		in progress	Searching for land in Wilmington
26	BOOTH	Upgrade main feeder of Circuit 4W24 to 795 to address voltage and conductor capacity issues (1.5 miles)	2016-17	\$225,000	✓			



CONSULTANT RECOMMENDATION			YEAR	COST (Booth Estimate)	RECOMMENDATION		STATUS	RMLD WORK PLAN
					ACCEPTED	ALTERNATE SOLUTION		
27	BOOTH	Complete comprehensive distribution system analysis upon GIS completion	2016-17	in-house	✓			
28	BOOTH	Complete the 4 kV Conversion Program	2016-19	\$1,500,000	✓		in progress	Change completion date to FY20. Multiple year project. 32+/- stepdown areas in the service territory. Converted the Burrough's Road area October 22, 2015.
29	BOOTH	Sub 3 does have SEL relays but they are all legacy models that don't provide the function (especially communication) of today's versions. If the plan is to have a fully-automated system then: replace the SEL relays with the modern version. Should be able to replace in existing hole and wiring.	2016-19	\$200,000	✓		completed	
30	BOOTH	New Wilmington Substation (procurement, design, construction and commission)	2017-19	\$4,250,000	✓		in progress	Searching for land near 115 kV lines in Ballardvale/Upton Rd area
31 (1)	BOOTH	Sub 5 Switchgear is at the end of useful life. The relaying needs to be updated for the system automation project. The existing breakers are 2008 vintage but should not be reused. They can be sold on the open market.	2017-19	\$1,200,000		✓		As part of the planning for the proposed substation in Wilmington the need for the Wildwood Substation will be reviewed.
32 (1)	BOOTH	Upgrade UG circuit exits 3W7, 4W5, 5W5, 5W9 to parallel 750 Cu to increase circuit capacity	2017-19	\$280,000		✓		Can't parallel up the feeder get-a-ways at Station 4 and Station 5, no spare conduits available. Can't parallel up the feeder get-a-ways at Station 3, no room for the second set of cables in the back of the switchgear. Solution: Load relief by feeder switching and/or new Wilmington Substation.
33	BOOTH	Feeder Automation - complete System Coordination Study in conjunction	2017-24	\$4,000,000	✓		in planning	
34	BOOTH	Upgrade main feeder of Circuit 4W28 to 1000 Cu to address voltage and conductor capacity issues (0.3 miles)	2018	\$60,000		✓		4W28 is the dedicated circuit for Analog Devices. Any type of load relief for feeder 4W28 will require the reconfiguration of ADI distribution system or an additional RMLD feeder to the site.
35	BOOTH	Substation automation	2019	\$112,000	✓		complete	Completed as part of relay upgrade project at Station 3 and Station 4.
36 (1)	BOOTH	Upgrade UG circuit exits 4W6, 5W8 to parallel 750 to increase circuit capacity.	2019	\$120,000		✓		Can't parallel up the feeder get-a-ways at Station 4 and Station 5, no spare conduits available. Can't parallel up the feeder get-a-ways at Station 3, no room for the second set of cables in the back of the switchgear. Solution: Load relief by feeder switching and/or new Wilmington Substation.
37	BOOTH	Upgrade main feeder of Circuit 4W23 to 795 to address voltage and conductor capacity issues (1.1 miles)	2020	\$165,000	✓			Change construction years to FY20, FY21 and FY 22. Hurdle: Verizon pole replacement area.
38 (1)	BOOTH	Upgrade UG circuit exits 3W18, 4W4, 4W10, 4W18 to parallel 750 to increase circuit capacity.	2021-23	\$370,000		✓		Can't parallel up the feeder get-a-ways at Station 4 and Station 5, no spare conduits available. Can't parallel up the feeder get-a-ways at Station 3, no room for the second set of cables in the back of the switchgear. Solution: Load relief by feeder switching and/or new Wilmington Substation.
39	BOOTH	Upgrade main feeder of Circuit 4W9 to 795 to address voltage and conductor capacity issues.	2021-23	\$75,000	✓			
40	BOOTH	Review and upgrade electric system comprehensive analysis	2024	\$100,000	✓			
41	BOOTH	Transformer D and E replacement at both Sub 4 and Sub 5. They are approaching their end of useful life.	2024-25	\$3,400,000	✓			
42	BOOTH	Install oil containment for Transformer D and E at Sub 4	2024-25	\$100,000	✓		completed	
43 (1)	BOOTH	Upgrade UG circuit exits 3W8, 4W12 to parallel 750 Cu to increase circuit capacity.	2024-26	\$180,000		✓		Can't parallel up the feeder get-a-ways at Station 4, no spare conduits available. Can't parallel up the feeder get-a-ways at Station 3, no room for the second set of cables in the back of the switchgear. Solution: Load relief by feeder switching and/or new Wilmington Substation.
44	BOOTH	Upgrade main feeder of Circuit 4W30 to 795 to address voltage and conductor capacity issues.	2024-26	\$165,000	✓			
45	BOOTH	Replace control panels for Ring bus at Sub 4	2024-26	\$200,000	✓		completed	Design Complete. Construction 100% completed in early March 2017.
46	UPG	Station 3 Transformers: #3. Adjust timing delay on the winding temperature trip.			✓		in progress	Work to be complete during reactor installation outage.
47	UPG	Station 3 Transformers: #4. Add a low oil trip to transformers so they trip before any winding damage can occur.			✓		in progress	Work to be complete during reactor installation outage.
48	UPG	Station 3 Transformers: #5. Replace LTC main braking rollers with the new design that has a brass sleeve for the roller to ride on.			✓		completed	
49	UPG	Station 3 Transformers: #6. Repair LTC control displays for #TA and #TB			✓		completed	LTC controls repaired and installed.

CONSULTANT RECOMMENDATION			YEAR	COST (Booth Estimate)	RECOMMENDATION		STATUS	RMLD WORK PLAN
					ACCEPTED	ALTERNATE SOLUTION		
50	UPG	Station 3 Transformers: #7. Replace or repair the Trans-TB Hydran unit.			✓			
51	UPG	Station 3 Transformers: #8. Repair the Trans TB temperature differential unit which is in failure mode.			✓		completed	Unit replaced.
52	UPG	Station 3 15 kV Breakers #2: the close spring assembly needs to be replaced.			✓		in progress	
53	UPG	Station 3 15 kV Breakers: #3. DC control power fuses for trip, close, motor should be separated.			✓		completed	
54	UPG	Station 3 15 kV Breakers: #4. Control handle trip should be separated from relay and should trip breaker directly.			✓		completed	
55	UPG	Station 3 Relays: #1. The DC negative feed to the differential relay for the digital inputs should be altered to tie a DC negative via a fuse.			✓		completed	
56	UPG	Station 3 Relays: #2. Review and alter the under voltage transfer scheme so that it operates like the same schemes at the other stations.					completed	
57	UPG	Station 4 115 kV Breakers: #1 (GCB1). Replace the breaker.			✓		completed	
58	UPG	Station 4 Transformers: #1. Repair trans #110D cooling contactor for stage #2.						Will need to follow-up with UPG for more information.
59	UPG	Station 4 Transformers: #2. Replace the trans #110D main tank pressure relief device contact.			✓		completed	
60	UPG	Station 4 Transformers: #3. Replace the trans #110D main tank low oil gauge.			✓		completed	
61	UPG	Station 4 Transformers: #4. Repair the DC control power supply control cabling.			✓		completed	
62	UPG	Station 4 Transformers: #5. Replace the trans 110E main tank low oil and pressure relief device cables from the devices to the conduit bodies.			✓		completed	
63	UPG	Station 4 Transformers: #6. Replace the trans 110E cooling fan mounted top left.			✓		completed	
64	UPG	Station 4 Transformers: #7. Replace all four bushings of Trans #110E and #110D.			✓		completed	See Item #10 (Booth Recommendation)
65	UPG	Station 4 15kV Breakers: #2. check circuit 4W11 on a normal basis to insure that the heaters remain on to keep the breakers above ambient temperature so that no moisture condenses on the breaker insulation.			✓		completed	
66	UPG	Station 4 Breakers: #4. Replace the ground stab on 4W22.			✓		completed	
67	UPG	Station 5 Transformers: #1. Replace the trans #D main tank low oil and pressure relief divide output cable. Reconnect the LTC low oil level gauge wiring in the conduit body where the device cable terminates.					completed	
68	UPG	Station 5 15kV Breakers: #1. Take bus out of service and check alignment and correct if possible.			✓		completed	
69	UPG	Station 5 15kV Breakers: #2. Remove breaker 5W9, inspect for corrosions, and correct misalignment of the Breaker contact Rosette and cell stab during maintenance cycle.			✓		completed	
70	UPG	Station 5 15kV Breakers: #3. Take bus out of service and check alignment and correct if possible.			✓		completed	
71	UPG	Station 5 15kV Breakers: #4. Take bus tie breaker out of service and check alignment and correct if possible.			✓		completed	

**Note:** Recommendations and priorities are based on existing system conditions. Should conditions change, these priorities will likely require re-evaluation.

(1) New Substation in Wilmington will address these recommendations; alternate solution provided in the meantime.



# LEIDOS - 2015 ORGANIZATIONAL STUDY

Leidos Timeline  
Recommendation Not Accepted

RMLD Proposed Timeline  
Recommendation Completed

	DIVISION	CONSULTANT RECOMMENDATION	CY 2015		CY 2016				CY 2017				CY 2018		RMLD WORK-PLAN/COMMENTS
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
<b>1</b>		<b>ESTABLISH PLANNING CULTURE</b>													
1.1	GM	Update 2008 Strategic Plan (New Strategic Plan)													
1.2	GM	Establish planning culture													On-going
1.3	I	Update Integrated Resources plan													Strategic plan - On-going
1.4	GM	Update six-year plan													Annually
1.5	EO	Develop electric system master plan													Long-term Planning, GIS, and Technology Roadmap - Completed
<b>2</b>		<b>DEVELOP AN EFFECTIVE SUSTAINABLE WORKFORCE</b>													
2.1		Develop workforce development plan													IT & TS
2.2		Develop succession plans													
2.3	HR	Update job descriptions													
2.4		Implement consistent performance review process													Completed
2.5		Hire additional HR personnel													On hold
2.6		Increase efforts to fill vacant positions													On-going; evaluating
<b>3</b>		<b>IMPROVE ORGANIZATIONAL EFFECTIVENESS</b>													
3.1		Reorganize to better align functions													On-going
3.2	GM	Create new Finance and Administration division													Completed
3.3	GM	Align Customer Services under the Integrated Resources Division													Completed
3.4	EO	Reorganize & Expand Engineering group (Develop System Engineering Group)													Tied to IBEW negotiations. Posted two systems engineer positions; CBA
3.5		Formalize business process and performance measurement													Assessing IT roadmap and staffing - near completion. Reorganizing and hiring.
3.6		Develop and implement internal and external communication plans													Review roadmap.
3.7		Assess organizational culture and employee satisfaction													Seeking consultant.
<b>4</b>		<b>DEVELOP LEADERSHIP CAPABILITIES</b>													
4.1	GM	Assess leadership													Completed
4.2		Provide management and leadership training.													On-going - CDPs
4.3		Provide cross-divisional management training.													On-going - CDPs

# LEIDOS - 2015 ORGANIZATIONAL STUDY

Leidos Timeline  
Recommendation Not Accepted

RMLD Proposed Timeline  
Recommendation Completed

	DIVISION	CONSULTANT RECOMMENDATION	CY 2015		CY 2016				CY 2017				CY 2018		RMLD WORK-PLAN/COMMENTS
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
<b>5</b>		<b>ESTABLISH PROJECT MANAGEMENT CULTURE</b>													
5.1		Develop project management policies and procedures													Completed
5.2		Establish project management training plan													HR to organize with Director of E&O; CDP
5.3		Add project management experience and certifications to job descriptions													On-going - job description revisions; CBA
5.4		Establish project management performance expectations													CBA
<b>6</b>		<b>ENSURE COMPETITIVELY PRICED SERVICES</b>													
6.1	IR	Continue regular cost of service and rate design review													Performing COS 2017
6.2	IR	Increase customer and engagement and education of alternate rates													TOU, DSM, Education, Solar Choice - Completed
<b>7</b>		<b>IMPROVE FINANCIAL PLANNING AND RISK MANAGEMENT</b>													
7.1	B	Review and update reserve policies													All policies - steady progress
7.2		Establish a risk management committee and enterprise risk management plan.													Integrated Resources -Nextera
7.3	B	Develop a succession plan for the Manager of Accounting and Business													Completed
7.4	B	Formalize financial and accounting business processes													In progress.
<b>8</b>		<b>STRENGTHEN SAFETY CULTURE</b>													
8.1	GM	Review Board Safety Policy													All policies. Developed Safety Program.
8.2		Develop injury and illness prevention program													Review of existing manual and OSHA requirements. Safety Program.
<b>9</b>		<b>DIVERSIFY RESOURCES</b>													
9.1	IR	Develop distributed generation penetration study													Complete ? DSM and max/feeder?
9.2		Review cost effectiveness and economic potential for end-use measures													Tangent and DSM
<b>10</b>		<b>ESTABLISH A CULTURE OF COMPLIANCE</b>													
10.1		Assign Compliance Manager and develop compliance plan and requirements.													Seek consultant.
<b>11</b>		<b>IMPROVE CUSTOMER SERVICE</b>													
11.1	IR	Conduct customer satisfaction surveys.													Communication Plan



# LEIDOS - 2015 ORGANIZATIONAL STUDY

Leidos Timeline  
Recommendation Not Accepted

RMLD Proposed Timeline  
Recommendation Completed

	DIVISION	CONSULTANT RECOMMENDATION	CY 2015		CY 2016				CY 2017				CY 2018		RMLD WORK-PLAN/COMMENTS
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
11.2	IR	Conduct post transaction surveys.													Communication Plan
11.3	IR	Develop and implement customer engagement plan.													Service Requirements Handbook completed. Issued new Terms and Conditions. Constant Contact - 17,000 email addresses
12		<b>PLAN FOR FUTURE TECHNOLOGIES</b>													
12.1	I	Complete operating technology roadmap													
13		<b>FOCUS ON ASSET MANAGEMENT</b>													
13.1		Develop and implement an asset management plan													Asset Management System - GIS/Cogsdale; WO system.
13.2		Develop and implement asset management business processes													Sprypoint
13.3		Implement asset management system													WO system
13.4	IR	Develop customer service manual (Service Requirement Handbook)													Completed
14		<b>LEVERAGE GEOGRAPHIC INFORMATION SYSTEMS</b>													
14.1	EO	Conduct robust GPS-based inventory of assets and infrastructure													GIS complete
14.2		Adopt and implement industry standard common information model													Completed
14.3	EO	Develop and implement business processes for GIS management													
14.4	EO	Provide GIS training for Engineering and Operations (All Other Divisions)													On-going - all divisions
15		<b>FORMALIZE AND ENHANCE WORK MANAGEMENT</b>													
15.1		Develop work management business processes													Integrated with asset management plan. SpryPoint then WO system
15.2		Implement modern work management system													Completed
16		<b>PLAN FOR RESILIENCY</b>													
16.1		Develop disaster recovery and business continuity plans													Emergency OP Procedure - completed.
17		<b>ENHANCE FACILITIES</b>													
17.1		Enhance current workspace													Control Room, Engineering