

AGENDA

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

WEDNESDAY, AUGUST 16, 2017

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 April 5, 2017, meeting as written.
3. Reliability Study Update – H. Jaffari, Director of Engineering & Operations
4. Organizational Study Update – C. O'Brien, General Manager
5. Proposed Rate: Electric Vehicle Charging Station – J. Parenteau, Director of Integrated Resources
Suggested Motion: Move that the RMLD Citizens' Advisory Board recommend to the RMLD Board of Commissioners the adoption of rate MDPU number 277, effective November 1, 2017, on the recommendation of the General Manager.
6. Sub-Committee for the Payment to the Town – G. Hooper, Chair
7. Selection of Vice Chair – G. Hooper, Chair
8. Next Meeting – 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: 2017-04-05

Time: 6:30 PM

Building: Wilmington High School

Location: 1-062 Large Group Instruction Room

Address: 159 Church Street, Wilmington, MA Session: Open Session Version: Draft

Purpose: General Business

Attendees: **Members - Present:**

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

Members - Not Present:

Others Present:

Mr. John Stempeck, Board of Commissioners
Ms. Coleen O'Brien, Ms. Joyce Mulvaney, Ms. Jane Pareneteau, 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. FY18 Capital Budget – C. O'Brien, General Manager
Materials: FY18 Capital Budget dated March 31, 2017; Revised Planned Programs (pages 9-11) Capital Improvements FY17 thru FY22

Ms. O'Brien noted that RMLD has transitioned the telephone system to VoIP (voice over internet protocol), which has impacted the functioning of one of our published telephone numbers. The IT department is working to resolve this issue.

Ms. O'Brien began review of the FY18 Capital Budget with the System Profile (page 6-7). Ms. O'Brien noted that RMLD has begun roll-out of SpryPoint Mobile software with tablets being utilized in the trouble trucks. This will allow us to automate crew work to integrate with GIS and other systems. This software will be piloted over the next month and will serve as a transition to implementing a work order system. The current Cogsdale billing/financial package has a work order component option.

Ms. O'Brien then began review of the Capital Projects as outlined on the revised "Planned Programs" spreadsheet which was distributed at the meeting. Ms. O'Brien gave a brief overview of the facilities projects, noting that the Master Site Facilities Plan remains on hold pending Reading Economic Development plans. Therefore, we are limiting major property improvement projects. CAB members questioned the cost of the thermal power washer system replacement noting that it seemed pricey. Chair Hooper asked if there was a water collection system at 230 Ash Street. Ms. O'Brien stated that she believes there's an oil/water separator in the drain system. Ms. O'Brien

agreed to follow-up with the Facilities Manager on the estimates and the status of the water/drainage system.

Ms. O'Brien continued review of the Facilities projects. Chair Hooper questioned the pricing for the roof project. Ms. O'Brien noted that the entire roof was not being replaced, but a portion of the roof including the membrane would be replaced. Ms. O'Brien concluded Facilities projects with a review of Rolling Stock Replacement, which is in line with the master plan for vehicle replacement. O'Brien noted that RMLD has applied for a grant to purchase electric vehicle charging stations, which will be located at 230 Ash Street. The charging stations will accommodate a planned purchase of an electric vehicle for RMLD use.

Ms. O'Brien moved on to review the Integrated Resources projects, including the Electric Vehicle Supply Equipment. Necessary repairs to the parking lot at Ash Street, which currently has flooding issues, has increased the budget on this project. The distributed gas generator (DG) in North Reading is \$2.504m and is still on target for this year's peak. Ms. O'Brien noted funding for any future DG units has been taken out of the six-year plan pending analysis of the impact of the North Reading unit on the peak reduction.

IT projects include the annual allotment for necessary hardware and software upgrades.

Ms. O'Brien then provided a brief review of the System projects. The GIS project should be completed early in FY18. Grid Modernization and Optimization will be completed in phases, therefore, funding for FY20-22 (Phase II) has been removed from the six-year plan for now (as reflected in the revised "Planned Projects" spreadsheet distributed). We want to be able to put in certain equipment and then measure the efficiency we are getting – where is the line between spending and how "smart" you want it to be. We will work in phases so that we make sure that the technology and the software continues to communicate; that everything remains open architecture. Ms. O'Brien noted that the cost sheet (page 42) represents Phase 1 (FY15-19). Mr. Small shared some of his experiences with smart grid technology.

Ms. O'Brien continued review of the planned system projects. The New Wilmington Substation is the only project scheduled to go to bonding. The \$650k planned for FY18 is land and any legal expenses. Building the substation is planned for FY19, finishing it up in FY20. Staff has met with representatives from the bonding company to review the process. Mr. Small asked about discussions with National Grid and noted that he believes the process for tapping the line may sometimes require a lengthy permitting process. The group discussed some of the challenges of identifying suitable land and possible alternatives if land cannot be identified, such as using the site at Station 5 if necessary and the challenges that site would present.

Mr. Small asked (regarding the *4W9 Getaway at Station 4*) if there was any thought to going to a 1m instead of 750. The group discussed 750 versus 1m. Ms. O'Brien agreed to follow-up with Mr. Jaffari on this item.

After completing review of the various System projects, Ms. O'Brien moved to Page 3 of the revised Capital Improvements spreadsheet and reviewed the six-year plan, which includes a snapshot of the depreciation funds and the transfers of operating funds. In FY18, we have included an extra million dollars in the transfer from operating funds. The Ending Balance for FY18 (\$600k) is less than we like to see (\$1m) and then it starts to climb up (FY19-22). If we are not able to build a substation and can hit the maintenance hard, its possible that we won't have to bond. We are watching the depreciation; it climbs back up as the maintenance starts to get more cyclic. Ms. O'Brien noted that RMLD has done a good job addressing the magnitude and volume of necessary maintenance without having to go to bond so far.

Ms. O'Brien then opened the discussion for questions. Mr. Kelley asked if there were any rebates or grants available for the LED lights being installed at the RMLD buildings. Ms. Parenteau responded that Integrated Resources looks at grants all the time. The State is coming out with a \$10m pool of money and RMLD is planning on submitting (due June 1) for 3-4 projects. As mentioned earlier, there are grants that are available for electric vehicles for municipalities, and we'll be applying for that. However, there are no specific grants RMLD (as a utility) could utilize for the LED upgrade at RMLD facilities.

Mr. Kelley asked if RMLD has considered having an electrician on staff to off-set some of the contract expense. Ms. O'Brien noted that the current staff is not licensed. If they were to retire, that would certainly be a target certification that RMLD would look for.

Chair Hooper asked how many vacancies are still open. Ms. O'Brien responded that there are potentially up to fifteen vacancies still being evaluated with several postings up. There has been a lot of headway with new hires (two accountants, a communications manager). Vacancies include two engineering positions, linemen positions, and an IT position. Ms. O'Brien noted that Leidos has not done their second phase evaluation of the Line group to determine if succession configuration changes are necessary.

Ms. Parenteau reported that the Operating Budget has been submitted to PLM for the cost of service study. There were some discussions at the Board meeting about the potential of restructuring or introducing a couple of different rate designs. Mr. Mayhew Seavey from PLM will be at the CAB meeting on the 12th, with preliminary information to share and to get CAB feedback. We will then present to the Board (in early May), and early in June finalize a rate proposal for the CAB. The rates will be contingent upon meeting the revenue requirements of the Operating Budget.

Ms. O'Brien noted that we want to be clear on what any new rate designs are going to accomplish - the cause and effect on the various rates. Sometimes with rate designs, the subsidizations can become magnified. We have to look at that impact on commercial customers and their businesses. Ms. Parenteau added that PLM will revisit the solar net metering rate. We are also looking at potentially exploring how we allocate the purchase power and capacity/transmission (PPCT) charges. As has been discussed, it's a demand-oriented rate, based on our highest peak. Yet, when we recover those costs through our rate base, it's on cents per kilowatt hour. RMLD is considering implementation of a demand component associated with PPCT charges. We cannot do that on the residential customers because we don't have demand meters, but we could potentially look at that in the commercial and industrial class. We would like to show that and get feedback because ultimately the Board sets rates. CAB feedback will be imperative to relay that to the Board. Ms. O'Brien noted that Mr. Seavey will also discuss off the grid scenarios as we move forward with solar alternatives. What does the utility recover as far as stranded costs or stand-by power to have power in place if it is needed; RMLD cannot compromise on the safety or maintenance - it still must be safe for the public, the worker, and the assets of the RMLD. We want a discussion that goes forward so that customers understand that they are not completely off the grid and what that means so that they have an opportunity to roll that into their calculations when they are looking at solar.

Mr. Kelley asked about the Ballardvale Street solar facility. Ms. Parenteau reported that we are still waiting for the FDIC in Washington to sign off on the project. The developer is optimistic that it should be coming within the next week or two. Mr. Kelley asked if the Burlington Avenue project was running, and if it was meeting performance projections. Ms. Parenteau responded that it was. The capacity factor on solar (in New England) is around 12-15%. Burlington Avenue has been up since the fall of 2015. Ms. Parenteau noted that the facility has had some vandalism, and there is now a dispute between the developer and the landlord to determine who is responsible.

3. Public Comment – G. Hooper, Chair

As there was not public present, Chair Hooper moved to Agenda Item 4.

4. Next Meeting – G. Hooper, Chair

The next CAB meeting is scheduled for April 12th, at RMLD in Reading.

5. Adjournment – G. Hooper, Chair

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

The Citizens' Advisory Board Meeting adjourned at 8:03 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	Bus D and E sections to the transformers completed on 11/12/16. Main Bus D and E sections to be reinsulated starting the week of 2/27/2017.
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. As each feeder is completed by DRG it is being sent to Milsoft to create the model.
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	2014 /2015 /2016 inspection 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

CONSULTANT RECOMMENDATION			YEAR	COST (Booth Estimate)	RECOMMENDATION		STATUS	RMLD WORK PLAN
					ACCEPTED	ALTERNATE SOLUTION		
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	✓			Change construction years to FY17, FY18 and FY19. Hurdle: Verizon pole replacement area
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	✓		in progress	PLM design complete. Materials received. Construction in progress. Approximately 70% complete.
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 Willmington 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	✓		in progress	
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.



CONSULTANT RECOMMENDATION			YEAR	COST (Booth Estimate)	RECOMMENDATION		STATUS	RMLD WORK PLAN
					ACCEPTED	ALTERNATE SOLUTION		
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. Material to arrive by 10/24/16. Construction 100% completed. Completion in early March 2017.
46	UPG	Station 3 Transformers: #3. Adjust timing delay on the winding temperature trip.			✓		in progress	PLM designing upgrades. Materials out to bid September 2016; award pending. Construction to begin in mid March 2017.
47	UPG	Station 3 Transformers: #4. Add a low oil trip to transformers so they trip before any winding damage can occur.			✓		in progress	PLM designing upgrades. Materials out to bid September 2016; award pending. Construction to begin in mid March 2017.
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	Scheduled for late November 2016 Rollers replaced on 12/2/2016.
49	UPG	Station 3 Transformers: #6. Repair LTC control displays for #TA and #TB			✓		completed	LTC controls repair and installed.
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.			✓		in progress	Will be addressed during Station #3 upgrades Materials have bee received. Construction to begin in Mid March 2017.
54	UPG	Station 3 15 kV Breakers: #4. Control handle trip should be separated from relay and should trip breaker directly.			✓		in progress	Will be addressed during Station #3 upgrades Materials have bee received. Construction to begin in Mid March 2017.
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.			✓		in progress	Will be addressed during Station #3 upgrades Materials have bee received. Construction to begin in Mid March 2017.
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.					in progress	Will be addressed during Station #3 upgrades Materials have bee received. Construction to begin in Mid March 2017.
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	Bus D and E sections to the transformers completed on 11/12/16. Main Bus D and E sections to be reinsulated starting the week of 2/27/2017.



CONSULTANT RECOMMENDATION			YEAR	COST (Booth Estimate)	RECOMMENDATION		STATUS	RMLD WORK PLAN
					ACCEPTED	ALTERNATE SOLUTION		
69	UPG	Station 5 15kV Breakers: #2. Remove breaker 5W9, inspect for corossions, and correct misalignment of the Breaker contact Rosette and cell stab during maintenance cycle.			✓		completed	Bus D and E sections to the transformers completed on 11/12/16. Main Bus D and E sections to be reinsulated starting the week of 2/27/2017.
70	UPG	Station 5 15kV Breakers: #3. Take bus out of service and check alignment and correct if possible.			✓		Completed	Bus D and E sections to the transformers completed on 11/12/16. Main Bus D and E sections to be reinsulated starting the week of 2/27/2017.
71	UPG	Station 5 15kV Breakers: #4. Take bus tie breaker out of service and check alignment and correct if possible.			✓		Completed	Bus D and E sections to the transformers completed on 11/12/16. Main Bus D and E sections to be reinsulated starting the week of 2/27/2017.

Note: Recommenations 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-PAN/COMMENTS
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
1		ESTABLISH PLANNING CULTURE													
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													
1.4	GM	Update six-year plan													Annually
1.5	EO	Develop electric system master plan													Long-term Planning, GIS, and Technology Roadmap
2		DEVELOP AN EFFECTIVE SUSTAINABLE WORKFORCE													
2.1		Develop workforce development plan													Leidos Support; CBA
2.2		Develop succession plans													Leidos Support - CY16 Q2 and Q3; CBA
2.3	HR	Update job descriptions													Leidos Support - CY16 Q2 and Q3; CBA
2.4		Implement consistent performance review process													Leidos Support - CY16 Q2 and Q3; CBA
2.5		Hire additional HR personnel													on hold
2.6		Increase efforts to fill vacant positions													On-going; evaluating
3		IMPROVE ORGANIZATIONAL EFFECTIVENESS													
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.
3.6		Develop and implement internal and external communication plans													Review roadmap.
3.7		Assess organizational culture and employee satisfaction													Leidos Support
4		DEVELOP LEADERSHIP CAPABILITIES													
4.1	GM	Assess leadership													Completed
4.2		Provide management and leadership training.													On-going
4.3		Provide cross-divisional management training.													On-going



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	
5		ESTABLISH PROJECT MANAGEMENT CULTURE													
5.1		Develop project management policies and procedures													Completed
5.2		Establish project management training plan													HR to organize with Director of E&O; CBA
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
6		ENSURE COMPETITIVELY PRICED SERVICES													
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
7		IMPROVE FINANCIAL PLANNING AND RISK MANAGEMENT													
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
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.
8		STRENGTHEN SAFETY CULTURE													
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
9		DIVERSIFY RESOURCES													
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
10		ESTABLISH A CULTURE OF COMPLIANCE													
10.1		Assign Compliance Manager and develop compliance plan and requirements.													Leidos Support
11		IMPROVE CUSTOMER SERVICE													
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-PAN/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		PLAN FOR FUTURE TECHNOLOGIES													
12.1	I	Complete operating technology roadmap													
13		FOCUS ON ASSET MANAGEMENT													
13.1		Develop and implement an asset management plan													Asset Management System - GIS/Cogsdale
13.2		Develop and implement asset management business processes													
13.3		Implement asset management system													
13.4	IR	Develop customer service manual (Service Requirement Handbook)													Completed
14		LEVERAGE GEOGRAPHIC INFORMATION SYSTEMS													
14.1	EO	Conduct robust GPS-based inventory of assets and infrastructure													CDM - on-going
14.2		Adopt and implement industry standard common information model													CDM - on-going
14.3	EO	Develop and implement business processes for GIS management													CDM- on-going
14.4	EO	Provide GIS training for Engineering and Operations (Add Other Divisions)													On-going
15		FORMALIZE AND ENHANCE WORK MANAGEMENT													
15.1		Develop work management business processes													Integrated with asset management plan. SpryPoint
15.2		Implement modern work management system													Completed
16		PLAN FOR RESILIENCY													
16.1		Develop disaster recovery and business continuity plans													Emergency OP Procedure - completed.
17		ENHANCE FACILITIES													
17.1		Enhance current workspace													On-going - carpet, gym, paint, reorganize office space

RECOMMENDATION:

Electric Vehicle Rate

- Replace the existing Pilot rate created in 2014 with a tariff filed with the DPU.
- Rate structure:

Distribution Charge	\$0.1111
Fuel Charge	as billed
Purchased Power Charge	as billed
- Rate calculation makes assumptions regarding the level of usage and should be re-evaluated after actual usage data is gathered
- Price is equivalent to about \$1.80/gallon of gasoline

Electric Vehicle Supply Equipment Schedule EVSE Rate

Designation:

Electric Vehicle Charger (EVSE) Rate

Available in:

Reading, Lynnfield Center, North Reading, and Wilmington

Applicable to:

This rate is available to Customers who utilize Electric Vehicle Supply Equipment; installed and owned by RMLD.

Character of service:

AC 60 cycles: single phase or three phase.

Distribution Energy Charge:

\$.1111 per Kilowatt-hour for all Kilowatt-hours usage

Fuel Adjustment:

The rate for service hereunder may be increased or decreased as provided by the Standard Fuel Adjustment Clause.

Purchase Power Capacity and Transmission Charge:

The rate for service hereunder may be increased or decreased as provided by the Purchase Power Capacity and Transmission Charge.

Meter Reading and Billing:

Service under this schedule will be rendered immediately.

General Terms and Conditions:

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate schedule.

Rate Filed: TBD

Effective: On Billings on or After November 1, 2017

Filed By: Coleen M. O'Brien, General Manager