



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: Final

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

A handwritten signature in black ink, likely belonging to Mr. Dennis Kelley, the 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 August 16, 2017.

READING MUNICIPAL LIGHT DEPARTMENT

Capital Improvements FY17 thru FY22

\$ Shown in thousands

CAB HANDOUT
v.2 Dated: April 5, 2017

TOWN	PG #	WO (PROJECT) #	PROJECT NAME	TOTAL ESTIMATED PROJECT COST	PRIOR YEARS' (ACTUAL) SPENDING PRIOR TO FY17	ACTUAL PROJECT SPENDING THRU 2/17	FY17 Budget	FY17 Est.	FY18 Est.	FY19	FY20	FY21	FY22	BRIEF DESCRIPTION
A	n/a	129	Master Facilities Site Plan (ON-HOLD)	50	0	0	50	0						Town economic development plan impact. Master-hold. Evaluate maintenance only.
A	13	104	RMLD Lighting (LED) Upgrade Program	125		0	25	25	100					Upgrade Ash Street and other RMLD facilities including substations with new LED fixtures. Evaluate transformer. Change in Scope: installation of fixtures by an electrical contractor.
A		096	Control Center Modifications	100		0	100	100						Modify the physical arrangement of the existing Control Center in order to meet grid mod-op.
A		097	HVAC Roof Units for Garage	50	14	58		44						Roof top unit and duct work.
A		121	HVAC System Upgrade - 230 Ash Street	1,273	686	1,205	500	520						Replace boilers, chillers, air handling units, and building automation systems addressing air filtration and efficiency.
A	15	TBD	Power Washer and Vacuum						20					Replace power wash system in garage; add vacuum system.
A	17	TBD	Remote SCADA Room						75					NERC - redundancy - need location.
A	19	TBD	Building Upgrades						110					Partial roof covering over 30% of building at 230 Ash Street, and lobby insulation.
A	21	098	Office Upgrades -230 Ash Street				72	97	92					Upgrade worn carpet at 230 Ash Street building. Remodel accounting area and replace broken office/conference room chairs.
A	23	119	Security Upgrades All Sites				5	35	30	30	30	30	30	Access control, alarm monitoring, video and perimeter monitoring along the fence lines, cyber security. Access control upgrade (scheduled FY16) completed in FY17.
A	25	118	Rolling Stock Replacement (vehicles, trailers fork trucks)				310	322	230	250	300	250	300	Scheduled vehicle replacement based on Fleet Assessment.
A	29	099	Electric Vehicle Supply Equipment (EVSE)	92	0	1	10	62	10	10	10			One electric charging station per town in the service area. Research grant options. FY17: unit to be installed at 230 Ash Street, Reading. Parking lot reconstruction.
A	31	100	Demand Management (Distributed Gas Generation - Pilot FY16-17)	2,920	29	121	2,720	2,504	25					Alternate years solar/battery storage and gas. FY16/17: Pilot DG gas peaking unit. FY18: Flow Battery Storage 150kW - \$25K site prep -grant \$150k.
A	34	127	Hardware Upgrades				112	79	105	119	119	119	119	General hardware purchases, wireless internal network configuration.
A	36	128	Software and Licensing				231	73	235	239	239	239	239	Custom programing/development (OM/UAN/GIS/GPS), SpryPoint SSRS software.
A	39	125	GIS	871	14	194	360	638	219					Current GIS model requires data integrity and quality inspection. Comprehensive data collection.
A	41	103	Grid Modernization and Optimization	1,003	202	424	284	227	227	347				Implement technology road map for grid efficiency, reduction of losses, etc. FY17: 4 switches to be installed. FY18: 4 switches/1 intellurptor to be installed.
A	43	131	LED Street Light Implementation - All Towns	2,599	625	1,110	804	804	1,169					Full implementation. On target. Price of lights reduced. Labor costs increased for FY18 to include expense portion of project. Approximately 8,800 lights/ \$125k grant.
W	45	105	New Wilmington Substation	7,700		0	250	50	650	5,785	1,265			Planning and securing land and licensing will begin in FY17 and continue in FY18.
W	47	102	Pad-mount Switchgear Upgrade at Industrial Parks	1,227		2	195	227	196	196	196	196	214	Starting in FY17, replace all 15kV padmount switchgears at River Park and Analog Devices, etc. A total of 25 switches/4 per year (5 in year six).
NR	49	133	Station 3: Relay Upgrades and SCADA Integration	476		251	252	400	76					Upgrade SEL 351 relays to SEL 351-7 to enhance data delivery to SCADA.
R		108	Relay Replacement -Station 4 (Gaw)	122	71	184	49	113						Replace existing electromechanical protective relay systems on the 15kV feeder breakers. The new relays will be capable of providing more information back to SCADA and store vast amounts of data for down loading and evaluation.
NR		130	Remote Terminal Unit (RTU) Replacement - Station 3	94	0	0	39	39						Upgrade to add functionality of the existing SEL relays. RTU will be IP addressable and will include Ethernet connection for RMLD and NSTAR connection.
R		113	Station 4: Battery Bank Upgrade	57	0	24	17	41						Replace battery bank.
A		115	Fault Indicators	50	0	1	25	1						Fault indicators to aid in fault locating.
A		136	Voltage Data Recorders	60	15	15	25	0						Voltage data and load logger required for voltage assessment and verification of energy efficiency commercial rebates. Project 098 IRD Hardware added to this item.
R		110	4W9 Getaway Replacement - Station 4	235		105	235	235						Upgrade 2,850 circuit feet of UG cable on Causeway Road and Lowell Street, R, with 750 mcm cu for increased reliability and capacity.
R		120	Station 4: Relay/SCADA Integration for Bus A&B	70		24	70	70						Replace electromechanical relays with solid state relays to bring more data into SCADA.

READING MUNICIPAL LIGHT DEPARTMENT
Capital Improvements FY17 thru FY22

\$ Shown in thousands

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A		135	Analog Devices Cap Bank Upgrade	54		1	54	16						Replace 360 Kvar Cap bank and upgrade bushing inserts from 200 Amp to 600 Amp
W		139	Station 5: LTC Control Replacement	42		6	42	30						Upgrade LTC control with newer or solid state controls.
A		140	Substation Grounding Equipment Upgrade (all stations)	21		0	21	21						Upgrade personal protective grounding equipment.
R		109	Station 4 (Gaw) 35kv Potential Transformer Replacement	41	14	14		14						Replace six 30+ -years-old transformers.
R	51	TBD	115 kV Transmission Line Upgrade (1 LINE PER YEAR FY18 & 19)	226					95	131				Transmission lines feeding Station 4 built in 1970 and have reached the end of their useful life. Both 115kV lines (211-503 and 211-504) are in need of upgrade.
R/W	53	TBD	35kV UG Cable Upgrade at Station 4, Station 5 and RR ROW	677					207	235	235			35kV Underground cables feeding substation 5 (4P2 and 4P9) are over 36 years old. Both are due for upgrade.
W	55	TBD	Pole Line Upgrade - Woburn Street, Wilmington (between West and Concord Streets)	401	0	0			200	200				Replace/upgrade twenty-four (24) main line poles and four (4) stub poles on Woburn Street (from Concord to West Street) to proper strength and height, create proper NESC clearance between utilities. Benefit to long-term reliability.
NR	57	TBD	Station 3 Reactors	561					561					Install two sets of reactors to lower fault current and incident energy or ARC flash per Booth Reliability Study recommendation.
A	59	112	AMI Mesh Network Expansion				220	200	120	150	150	150	150	Retrofit 500 meters per year and install relays to expand the AMI mesh network. This will allow for end-of-the-line voltage readings.
A	61	126	Communication Equipment (Fiber Optic)				69	17	215	50	50	50	50	Materials to accommodate expanded use of fiber optic network for Distribution Automation and Eaton AMI system. In FY18 we will add approximately 12 fiber nodes to expand communications options for substations and automation devices.
A	63	117	Meters				80	80	60	60	60	60	60	Purchase meters for stock - new construction, upgrades and failures.
A	65	TBD	Pole Replacement Program						209	215	222	229	235	Replace poles identified through the Pole Inspection Program. This will include transfers and replacement of secondary services as necessary. 50 poles scheduled for replacement in FY18.
A	67	TBD	Secondary and Main Replacement Program						222	200	200	200	200	Repair as necessary secondary/main services and connectors as determined by system-wide inspection.
A	69	111	Substation Equipment Upgrade				75	50	50	50	30	30	30	Upgrade various equipment at substations to include TLC controls, remote racking devices, cable trays and various minor items. FY18 will include replacement of various 35Kv insulators at Station 4.
A	n/a	134	Substation/Metering Test Equipment				30	30		30	30			Purchase of test equipment for substation and metering. Nothing planned for FY18.
A	71	116	Transformers and Capacitors				668	316	561	577	595	612	631	Purchase of units for stock and proposed projects.
A	73	107	13.8kV Upgrade (Step-down Area, etc.) - All Towns				106	60	71	73	75	77	80	Convert areas to 13.8kV, remove antiquated equipment and step-downs to lower losses and improve system efficiency.
A	75	106	UG Facilities Upgrades (URDs, Manholes, etc.) - All Towns				150	400	345	355	366	377	388	Replace primary and neutral cables and padmount transformers as needed in various aging URDs. Improved reliability. In FY17 unexpected underground facilities failure (Lucaya Estates and Gandolf Way, Wilmington; Patrice Lane, Lynnfield; Turner Drive and Crestwood Drive, North Reading). For the next five years, three subdivisions are planned to be upgraded per year.
A	77	various	New Customer Service Connections (Residential and Commercial)				140	140	156	161	165	170	176	Install new and upgraded residential and commercial services as requested.
A	79	various	Routine Construction				1,013	1,613	1,044	1,075	1,107	1,141	1,175	Non-project capital including labor, miscellaneous pole sets, transfers, UG, police details, and OT.
R		TBD	4W4 Getaway Replacement - Station 4							242				Upgrade 3,700 circuit feet of UG cable on West Street, R and West St, W to 750 mcm cu for increased reliability and capacity.
W		TBD	Station 5- Getaway Replacements, 5W4, 5W5, 5W8							92				Upgrade feeders from substation to risers to increase feeders' Ampacity.
W		101	5W9 Reconductoring - Ballardvale Area, Wilmington							150	200			Upgrade to 795 spacer for capacity feeding Ballardvale area (Target).
R		TBD	Upgrade 4W24 to 795							225	225			Upgrade main feeder of Circuit 4W24 to 795 to address voltage and conductor capacity issues (1.5 miles)

READING MUNICIPAL LIGHT DEPARTMENT
Capital Improvements FY17 thru FY22

\$ Shown in thousands

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W		TBD	5W5 Reconductoring - Wildwood to Upton Drive							214	214	214		Upgrade 25,000 circuit feet of 336 spacer cable on Wildwood, Woburn, and Andover Streets to 795 spacer cable.
R		TBD	4W5 Getaway Replacement - Station 4								234			Upgrade 1,700 circuit feet of UG cable on West Street, R to 750 mcm cu for increased reliability and capacity.
R		TBD	4W6 Getaway Replacement - Station 4								243	243		Upgrade 1,850 circuit feet of UG cable on West Street, R to 750 mcm cu for increased reliability and capacity per Booth Reliability Study recommendations.
R		TBD	Upgrade 4W23 to 795								60	165		Upgrade main feeder to Circuit 4W23 to 795 to address voltage and conductor capacity issues
TOTAL							9,406	9,695	7,686	11,463	6,621	4,553	4,077	

CURRENTLY COMPLETED

SCHEDULED TO BE COMPLETED BY END OF FY

TABLE 1: PLANT VALUES & DEPRECIATION EXPENSE:

	FY17 Budget	FY17 Est.	FY18 Est.	FY19	FY20	FY21	FY22
Plant in Service (Beginning)	138,986	137,976	146,671	153,356	163,819	169,440	172,992
Additions	9,406	9,695	7,686	11,463	6,621	4,553	4,077
Adjustments (Property Retirement)	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000
Plant in Service (Ending)	147,392	146,671	153,356	163,819	169,440	172,992	176,069
Less Land and Land Rights	-1,266	-1,266	-1,266	-1,266	-1,266	-1,266	-1,266
Depreciable Plant in Service	146,126	145,405	152,090	162,553	168,174	171,726	174,803
Accumulated Reserve For Depreciation	-70,919	-69,875	-74,237	-78,800	-83,676	-88,722	-93,873
Net Plant in Service	76,473	76,796	79,119	85,019	85,763	84,271	82,196
Maximum allowed Return on Net Plant (%)	8%	8%	8%	8%	8%	8%	8%
Maximum allowed Return on Net Plant (\$)	6,118	6,144	6,330	6,802	6,861	6,742	6,576

TABLE 2: DEPRECIATION FUND BALANCES:

Beginning Balance	4,820	4,495	767	600	989	2,017	4,025
Interest Earned*	48	34	6	4	7	15	30
Depreciation Rate (3-5%)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Depreciation Expense	4,132	4,101	4,362	4,563	4,877	5,045	5,152
Bond Proceeds and Other Fund Sources	0	332	650	5,785	1,265	0	0
Operating Fund Transfer	1,000	1,500	2,500	1,500	1,500	1,500	1,500
	10,000	10,462	8,285	12,452	8,638	8,578	10,707
Capital Improvements	-9,406	-9,695	-7,686	-11,463	-6,621	-4,553	-4,077
Principal Payment							
Ending Balance	593	767	600	989	2,017	4,025	6,630
* Interest Rate on Fund Balances	1.00%	0.75%	0.75%	0.75%	0.75%	0.75%	0.75%
Mass DOT (Highway): West Street		270					
DOER - ENE Grant (LED Credit)		63					
Bond Proceeds for Demand Management							
Bond Proceeds for New Substation - Wilmington			650	5,785	1,265		
Bond Proceeds Secondary Main & Services Upgrade							
Grid Optimization Expansion							
	0	332	650	5,785	1,265	0	0