

**READING MUNICIPAL LIGHT DEPARTMENT
BOARD OF COMMISSIONERS
JOINT MEETING WITH THE CITIZENS' ADVISORY BOARD**

Reading Municipal Light Department

Spurr/AV Room

230 Ash Street

Reading, MA 01867

April 10, 2013

7:00 p.m.

1. Call Meeting to Order

2. Discussion of Fiscal Year 2014 – Capital Budget

Note: Budget discussion will be held jointly with the RMLD Citizens' Advisory Board

ACTION ITEM

3. Discussion of Middleton Overpayment

4. Discussion of General Manager Rotation

ACTION ITEM

5. Adjournment

Suggested Motion:

Move to adjourn the Regular Session.

RMLD Board Meetings

ACTION ITEM

Wednesday, April 24, 2013, RMLD Spurr/AV Room, 7:30 p.m. – Regularly Scheduled Meeting

Wednesday, May 29, 2013, RMLD Spurr/AV Room, 7:30 p.m. – Regularly Scheduled Meeting

READING MUNICIPAL LIGHT
DEPARTMENT

***FY 14 CAPITAL
BUDGET***

DRAFT 1
March 29, 2013

Kevin Sullivan
Interim General Manager

FY14 - BUDGET SUMMARY - DRAFT 1

PROJECT DESCRIPTION	TOWN	AMOUNT	TOTAL
E&O Construction-System Projects			
1 5W9 Reconductoring - Wildwood Street	Wilmington	\$ 169,494	
2 4W4 Reconductoring	Wilmington	\$ 166,340	
3 Upgrading Old Lynnfield Center URDs (Trog Hawley) (Partial Carryover)	Lynnfield	\$ 140,827	
4 Upgrading Old Lynnfield Center URDs (Cook's Farm)	Lynnfield	\$ 410,983	
5 4W5 - 4W6 Tie	Reading	\$ 96,596	
6 URD Upgrades - All Towns	All Towns	\$ 210,005	
7 Stepdown Area Upgrades - All Towns	All Towns	\$ 232,817	
	Total System Projects		<u>\$ 1,427,062</u>
Station Upgrades			
8 Relay Replacement Project - Gaw Station (Carryover)	Reading	\$ 117,181	
9 Gaw Station 35 kv Potential Transformer (PT) Replacement	Reading	\$ 40,288	
10 Station 3 - Replacement of Service Cutouts	North Reading	\$ 30,126	
11 Station 4 Getaway Replacement - 4W9	Reading	\$ 245,147	
15 Station 5 - Getaway Replacements 5W9 and 5W10	Wilmington	\$ 95,343	
	Total Station Projects		<u>\$ 528,085</u>
SCADA Projects			
30 RTU Replacement - Station 3	N. Reading	\$ 84,109	
	Total SCADA Projects		<u>\$ 84,109</u>
New Customer Service Connections			
12 Service Installations-Commercial/Industrial	All Towns	\$ 55,549	
13 Service Installations - Residential Customers	All Towns	\$ 200,302	
	Total Service Connections		<u>\$ 255,851</u>
14 Routine Construction	All Towns		
a. Capital Construction		\$ 305,287	
b. Street Light Installations		\$ 63,653	
c. Pole Setting/Transfers		\$ 188,172	
d. Engineering Labor		\$ 28,322	
e. General Line Foreman Labor		\$ 83,517	
f. U/G Construction		\$ 110,760	
g. Police Details		\$ 48,000	
h. Overtime		\$ 186,595	
	Total Routine Construction		<u>\$ 1,014,306</u>
	TOTAL E&O Construction	\$ 3,309,414	\$ 3,309,414
Other Projects			
16 Transformers		\$ 284,000	
17A Meter Purchases		\$ 138,000	
17C AMR High-Powered ERT Comm. Meter Upgrade Project (Partial Carryover)		\$ 114,601	
17D AMR High-Powered ERT 500 Club Meter Upgrade Project		\$ 92,713	
18 Purchase New Pick-up Trucks		\$ 70,000	
19 Purchase Two New Line Department Vehicles		\$ 400,000	
20 Build Covered Storage (Multi-year Project)		\$ 150,000	
21 HVAC System Upgrade (Multi-year Project)		\$275,000	
22 Engineering Analysis Software and Data Conversion (Partial Carryover)		\$ 37,081	
23 New Radio System (Multi-year Project)		\$ 100,000	
24 Repairs - 226 Ash Street, Station 1 (Multi-year Project)		\$520,000	
26 Communication Equipment		\$ 100,000	
27 Hardware Upgrades		\$ 181,000	
28 Software and Licensing		\$180,200	
	Total Other Projects	\$ 2,642,594	\$ 2,642,594
	TOTAL CAPITAL BUDGET	\$ 5,952,008	\$ 5,952,008

READING MUNICIPAL LIGHT DEPARTMENT
FISCAL YEAR 2014 CAPITAL PROJECTS - QUARTERLY PROJECTION

#	E&O Construction-System Projects	1st	2nd	3rd	4th	Total
1	5W9 Reconductoring - Wildwood Street	-	84,747	84,747	-	169,494
2	4W4 Reconductoring	-	83,170	83,170	-	166,340
3	Upgrading Old Lynnfield Center URDs (Trog Hawley) (Partial Car	140,827	-	-	-	140,827
4	Upgrading Old Lynnfield Center URDs (Cook's Farm)	-	-	5,000	405,983	410,983
5	4W5 - 4W6 Tie	-	24,149	72,447	-	96,596
6	URD Upgrades - All Towns	70,002	70,002	70,002	-	210,005
7	Stepdown Area Upgrades - All Towns	77,606	77,606	77,606	-	232,817
Total:		\$ 288,435	\$ 339,674	\$ 392,971	\$ 405,983	\$ 1,427,062

#	Station Upgrades	1st	2nd	3rd	4th	Total
8	Relay Replacement Project - Gaw Station (Carryover)	19,529	58,590	39,061	0	117,181
9	Gaw Station 35 kv Potential Transformer (PT) Replacement	0	40,288	0	0	40,288
10	Station 3 - Replacement of Service Cutouts	0	0	0	30,126	30,126
11	Station 4 Getaway Replacement - 4W9	245,147	0	0	0	245,147
15	Station 5 - Getaway Replacements 5W9 and 5W10	0	0	95,343	0	95,343
Total:		\$ 264,677	\$ 98,878	\$ 134,404	\$ 30,126	\$ 528,085

#	SCADA Projects	1st	2nd	3rd	4th	Total
30	RTU Replacement - Station 3	\$ -	\$ -	\$ 84,109	\$ -	\$ 84,109

#	New Consumer Service Connections	1st	2nd	3rd	4th	Total
12	Service Installations-Commercial/Industrial	13,887	13,887	13,887	13,887	55,549
13	Service Installations - Residential Customers	50,076	50,076	50,076	50,076	200,302
Total:		\$ 63,963	\$ 63,963	\$ 63,963	\$ 63,963	\$ 255,851

#	Routine Construction	1st	2nd	3rd	4th	Total
14	a. Capital Construction	76,322	76,322	76,322	76,322	305,287
	b. Street Light Installations	15,913	15,913	15,913	15,913	63,653
	c. Pole Setting/Transfers	47,043	47,043	47,043	47,043	188,172
	d. Engineering Labor	7,081	7,081	7,081	7,081	28,322
	e. General Line Foreman Labor	20,879	20,879	20,879	20,879	83,517
	f. U/G Construction	27,690	27,690	27,690	27,690	110,760
	g. Police Details	12,000	12,000	12,000	12,000	48,000
	h. Overtime	46,649	46,649	46,649	46,649	186,595
Total:		\$ 253,576	\$ 253,576	\$ 253,576	\$ 253,576	\$ 1,014,306

Total Construction Projects: \$ 870,650 \$ 756,091 \$ 929,024 \$ 753,648 \$ 3,309,414

#	Other Projects	1st	2nd	3rd	4th	Total
16	Transformers	-	-	142,000	142,000	284,000
17A	Meter Purchases	-	69,000	-	69,000	138,000
17C	AMR High-Powered ERT Comm. Meter Upgrade Project (Partial C	57,301	57,301	-	-	114,601
17D	AMR High-Powered ERT 500 Club Meter Upgrade Project	-	-	92,713	-	92,713
18	Purchase New Pick-up Trucks	-	-	70,000	-	70,000
19	Purchase Two New Line Department Vehicles	-	-	400,000	-	400,000
20	Build Covered Storage (Multi-year Project)	-	-	-	150,000	150,000
21	HVAC System Upgrade (Multi-year Project)	-	150,000	-	125,000	275,000
22	Engineering Analysis Software and Data Conversion (Partial Carry	18,540	18,540	-	-	37,081
23	New Radio System (Multi-year Project)	-	100,000	-	-	100,000
24	Repairs - 226 Ash Street, Station 1 (Multi-year Project)	200,000	320,000	-	-	520,000
26	Communication Equipment	25,000	25,000	25,000	25,000	100,000
27	Hardware Upgrades	45,250	45,250	45,250	45,250	181,000
28	Software and Licensing	45,050	45,050	45,050	45,050	180,200

Total Other Projects: \$ 391,141 \$ 830,141 \$ 820,013 \$ 601,300 \$ 2,642,594

TOTAL FY14: \$ 1,261,791 \$ 1,586,232 \$ 1,749,037 \$ 1,354,948 \$ 5,952,008

Town of Reading Municipal Light Department
Capital Budget Abbreviations and Acronyms

1/0 and 4/0 – Sizes of power cable

3-ph – three-phase

AAAC – All Aluminum Alloy Conductors

AL - Aluminum

CSP – Completely Self Protected Transformer, which has a circuit breaker

CU – Copper

DA – Distribution Automation

DOT – Department of Transportation

DNP – Distributed Network Protocol

ERT – Encoder, Receiver, Transmitter for automated meter readings

GIS – Geographical Information System

GOS – Gang Operated Switch

GPS – Global Positioning System

ISO – New England – Independent System Operators

kV – Kilovolt

KVAR – Kilovolt Amps Reactive

kW - Kilowatt

L – Lynnfield

LCD – Liquid Crystal Display

MCM – Power cable size meaning thousand circular mills

MW - Megawatt

NR – North Reading

OCB - Oil Circuit Breaker

OM – Outage Management

PVC – Poly Vinyl Chloride

R – Reading

RTU – Remote Terminal Unit

SCADA – Supervisory Control and Data Acquisition

TOU – Time of Use Meters

U/G – Underground

URD – Underground Residential Development

W – Wilmington

SYSTEM PROJECTS

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

System Projects

Capital Project Name: 1. 5W9 Reconductoring - Wildwood Street, Wilmington

Reason for Expenditures:

5W9 is a 336 spacer cable circuit that originates at Station 5 and feeds Ballardvale Street. This circuit has seen heavy loading during the summer peaks. This project will upgrade the circuit to 795 spacer cable. This project will be broken up into three (3) phases over the next three (3) fiscal years:

Phase 1: FY2014 - Wildwood Street, from Station 5 to Pole 66, Middlesex Avenue.

Phase 2: FY2015 - From Pole 66, Middlesex Avenue, to Pole 26, Salem Street.

Phase 3: FY2016 - From Pole 26, Salem Street, to Pole 48, Ballardvale Street.

Brief Description/Scope:

Reconductor 336 spacer cable on Wildwood Street and Middlesex Avenue with 7,000 circuit feet of 795 spacer cable and 7,000 feet of 0.052 covered messenger. Replace insulators and re-use existing brackets. Install one (1) 900-amp gang operated switch.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014		\$84,747	\$84,747		\$169,494

TOTAL PROJECT COST: \$169,494

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: 5W9 Reconductoring - Wildwood Street

CAPITAL PROJECT NUMBER: 1

PROJECT NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Install: 21,000 feet of 795 spacer cable 7,000 feet of 0.052 messenger	5.6	\$62,296	\$9,184			\$59,458	\$130,938
Unit Cost		\$11,124	\$1,640			See box at left.	
Install: 65 miscellaneous pole line hardware and materials						\$13,000	\$13,000
Unit Cost						\$200 per pole	
Install: 1 900 amp gang operated switch	0.4	\$4,450	\$656			\$2,510	\$7,616
Unit Cost		\$11,124	\$1,640			\$2,510 per switch	
Unit Cost							
Engineering Labor: 1 week				\$3,540			\$3,540
Unit Cost				\$3,540.25		per week	
Police Details (if applicable) 6.0 weeks						\$14,400	\$14,400
Unit Cost						\$2,400 per week	

Total RMLD Crew Weeks 6.0
Total U/G Crew Weeks

TOTAL	6.0	\$66,746	\$9,840	\$3,540	\$89,368
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TOTAL PROJECT COST: \$169,494

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

System Projects

Capital Project Name: 2. 4W4 Reconductoring - Wilmington

Reason for Expenditures:

4W4 is a heavily loaded circuit that is express from West Street, along Industrial Way, and out to Woburn Street in Wilmington. The distribution load is on Woburn Street, Eames Street, and Jewel Drive in Wilmington.

Brief Description/Scope:

Reconductor 336 spacer cable on Industrial Way with 5,500 circuit feet of 795 spacer cable and messenger cable. Re-use existing brackets and replace insulators. Install one (1) gang operated switch. Upgrade various 5/8" anchors with 1" anchors.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014		\$83,170	\$83,170		\$166,340

TOTAL PROJECT COST: \$166,340

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: 4W4 Reconductoring

CAPITAL PROJECT NUMBER: 2

PROJECT NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL	
Install: 16,500 feet of 795 spacer cable 5,500 feet of 0.052 messenger	7	\$77,870	\$11,480			\$43,450	\$132,800	
	Unit Cost	\$11,124	\$1,640			See box at left		
Install: 1 New 900 amp gang operated switch	0.4	\$4,450	\$656			\$2,510	\$7,616	
	Unit Cost	\$11,124	\$1,640			\$2,510 per switch		
Install: 35 miscellaneous pole line hardware and materials						\$7,000	\$7,000	
	Unit Cost					\$200 per pole		
Engineering Labor: 0.6 weeks				\$2,124			\$2,124	
	Unit Cost			\$3,540		per week		
Police Details (if applicable) 7.0 weeks						\$16,800	\$16,800	
	Unit Cost					\$2,400 per week		
Total RMLD Crew Weeks	7.4							
Total U/G Crew Weeks								
TOTAL	7.4	\$82,320	\$12,136	\$2,124			\$69,760	

TOTAL PROJECT COST: \$166,340

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

System Projects

Capital Project Name: 3. Upgrading of Old Lynnfield Center URDs (Partial Carryover)

Reason for Expenditures:

There are three subdivisions in Lynnfield that are over 40 years old and are in need of an upgrade. These were some of the first underground construction projects on the RMLD system. These areas do not conform to the Department's current construction standards, and an underground cable failure could result in a significant outage for some customers.

Brief Description/Scope:

The first phase of this project was the Townsend and Needham Road Subdivision (FY12). The second phase is Russell Road, Trog Hawley and Charing Cross (FY13), and the third phase will be Cooks Farm, Cortland Lane, and Tophet Road (FY14).

This project requires building a new underground distribution system within the public way. This involves the installation of manholes, conduits, transformers, underground primary and secondary cable, pullboxes, etc. The transformers would be replaced in the same location. The Department would intercept the customer's existing service and place a pullbox on the property. If the customer wants to upgrade their service at the same time, they would be responsible from the pullbox to the house. In FY12 and 13 the Department started with the Townsend and Needham Road Subdivision. Engineering will petition the Town for permission to install the underground electric facilities and meet with the customers affected by this construction to explain the project and scope of work.

This project will require procuring an excavation contractor and may require the complete repaving of the subdivision.

We anticipate 60% of the work in the Trog Hawley subdivision will be completed in FY13. The total project costs represents the projected 40% carryover into FY14.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$140,827				\$140,827

TOTAL PROJECT COST: \$140,827

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Upgrading Old Lynnfield Center URDs (Trog Hawley) (Partial Carryover)

CAPITAL PROJECT NUMBER: 3

PROJECT NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Install: 5,000 feet of U/G 1/0 primary@1.50/ft 1,650 feet of U/G 4/0 secondary@1.00/ft 5 transformers	6.0	\$66,746	\$9,840				\$76,586
	Unit Cost	\$11,124	\$1,640			See box at left.	
	2-Man						
Underground Contractor transformer cable and conduit installation	8.0			\$47,360	\$320		\$47,680
	Unit Cost			\$5,920	\$40	per week	
	Unit Cost						
Engineering labor				\$14,161			\$14,161
4.0 weeks				Unit Cost		per week	
	Unit Cost						
Police Details (if applicable)						\$2,400	\$2,400
1.0 weeks						Unit Cost	
						\$2,400	
Total RMLD Crew Weeks	6.0						
Total U/G Crew Weeks	8.0						
TOTAL	14.0	\$66,746	\$9,840	\$61,521	\$320	\$2,400	

TOTAL PROJECT COST: **\$140,827**

NOTE: Materials will be purchased in FY13 as budgeted.

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

System Projects

Capital Project Name: 4. Upgrading of Old Lynnfield Center URDs (Cook's Farm)

Reason for Expenditures:

There are three (3) subdivisions in Lynnfield that are over 40 years old and are in need of an upgrade. These were some of the first underground construction projects on the RMLD system. These areas do not conform to the Department's current construction standards, and an underground cable failure could result in a significant outage for some customers.

Brief Description/Scope:

The first phase of this project was the Townsend and Needham Road Subdivision (FY12). The second phase is Russell Road, Trog Hawley and Charing Cross (FY13), and the third phase will be Cooks Farm, Cortland Lane, and Tophet Road (FY14).

This project would require building a new underground distribution system within the public way. This involves the installation of manholes, conduits, transformers, underground primary and secondary cable, pullboxes, etc. The transformers would be replaced in the same location. The Department would intercept the customer's existing service and place a pullbox on the property. If the customer wants to upgrade their service at the same time, they would be responsible from the pullbox to the house. In FY14 the Department will begin Cooks Farm Lane, Cortland Lane, and Tropheet Road. Engineering will petition the Town for permission to install the underground electric facilities and meet with the customers affected by this construction to explain the project and scope of work.

This project will require procuring an excavation contractor and may require the complete repaving of the subdivision.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014			\$5,000	\$405,982.86	\$410,983

TOTAL PROJECT COST: \$410,983

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Upgrading Old Lynnfield Center URDs (Cook's Farm)

CAPITAL PROJECT NUMBER: 4

PROJECT NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL	
Install: 6,000 feet of U/G conduit @ 1.00/ft 5,400 feet of U/G 1/0 primary@1.50/ft 1,800 feet of U/G 4/0 secondary@1.00/ft 11 manholes, 9 transformers, etc.	14.0	\$155,741	\$22,960			\$75,000	\$253,701	
		Unit Cost		\$11,124	\$1,640	See box at left.		
Underground Contractor One mile of trench	16.0			\$94,720	\$640		\$95,360	
		Unit Cost		\$5,920	\$40	per week		
		Unit Cost						
		Unit Cost						
Engineering labor 8.0 weeks				\$28,322			\$28,322	
		Unit Cost		\$3,540				
		Unit Cost						
Police Details (if applicable) 14.0 weeks						\$33,600	\$33,600	
		Unit Cost				\$2,400 per week		
Total RMLD Crew Weeks		14.0						
Total U/G Crew Weeks		16.0						
TOTAL		30.0	\$155,741	\$22,960	\$123,042	\$640	\$108,600	

TOTAL PROJECT COST: \$410,983

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

System Projects

Capital Project Name: 5. 4W5 - 4W6 - Tie

Reason for Expenditures:

With the development of the Addison Wesley Property and South Main Street, there is a need to shift a portion of the 4W6 distribution load onto another circuit. Circuit 4W5 was extended down Oak Street from West Street many years ago in anticipation of the development of South Main Street. This project would complete the circuit extension down Oak Street to Summer Street.

Brief Description/Scope:

Install approximately 1,500 circuit of 556 spacer and messenger, reconductor 1,500 feet of secondary cable. Verizon to replace six (6) poles and the RMLD will install 2 laminated poles.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014		\$24,149	\$72,447		\$96,596

TOTAL PROJECT COST: \$96,596

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: 4W5 - 4W6 Tie

CAPITAL PROJECT NUMBER: 5

PROJECT NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Install 4,500 feet of 556 1500 feet of 0.052 messenger	2	\$22,249	\$3,280			\$10,875	\$36,404
Unit Cost		\$11,124	\$1,640			See box at left.	
Install 1,500 feet 4/0 secondary cable	1	\$11,124	\$1,640			\$1,875	\$14,639
Unit Cost		\$11,124	\$1,640			See box at left.	
Install 2 47" laminated poles w/Zanni 1 gang operated switch	1	\$11,124	\$1,640			\$14,248	\$27,012
Unit Cost			\$1,640			See box at left.	
15 Miscellaneous pole line hardware and materials.						\$3,000	\$3,000
Unit Cost						\$200 per pole	
Replace poles - Verizon set and change 6 45' poles						\$2,400	\$2,400
Unit Cost						\$400 per pole	
Engineering 1.0 week				\$3,540			\$3,540
Unit Cost				\$3,540		per week	
Police Details (if applicable) 4.0 weeks						\$9,600	\$9,600
Unit Cost						\$2,400 per week	

Total RMLD Crew Weeks 4.0
Total U/G Crew Weeks

TOTAL	4.0	\$44,497	\$6,560	\$3,540	\$41,998
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TOTAL PROJECT COST: **\$96,596**

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

System Projects

Capital Project Name: 6. URD Upgrades - All Towns

Reason for Expenditures:

There are 244 +/- underground residential subdivisions in the RMLD service territory, of which, 65 +/- are over 25 years old. These subdivisions are in need of new primary cable and transformers. Some of the URDs are in stepdown areas and need to be upgraded before they can be converted to 7,979 volts. Also, most of the existing transformers are live-front units. The new padmount transformers will be dead-front units which will improve reliability by eliminating the possibility of animal contacts within the pad transformer.

Brief Description/Scope:

Replace primary and neutral cables, and pad-mounted transformers as needed in the various URDs. Replace precast transformer pads with fiberglass box pads as needed for elevation requirements.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$70,002	\$70,002	\$70,002		\$210,005

TOTAL PROJECT COST: \$210,005

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: URD Upgrades - All Towns

CAPITAL PROJECT NUMBER: 6

PROJECT NUMBER: 14

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Install 7000 feet of 1/0 AL UG Cable 7000 feet of #2 CU neutral	6	\$66,746	\$9,840			\$18,830	\$95,416
Unit Cost		\$11,124	\$1,640			\$2.69 per foot	
Install 10 padmount transformers	2	\$22,249	\$3,280			\$25,000	\$50,529
Unit Cost		\$11,124.35	\$1,640			\$2,500 per transformer	
Underground Contractor	8			\$47,360	\$320		\$47,680
Unit Cost				\$5,920	\$40 per week		
8 splices @ \$100 ea 20 load break elbows @ \$100 ea 8 terminations @ 100 ea						\$3,600	\$3,600
Unit Cost						See box at left.	
Misc materials \$200 per transformer (9) \$100 per manhole (15)						\$3,300	\$3,300
Unit Cost						See box at left.	
Engineering 2 weeks				\$7,081			\$7,081
Unit Cost				\$3,540.25 per week			
Police Details (if applicable) 1 week						\$2,400	\$2,400
Unit Cost						\$2,400 per week	
Total RMLD Crew Weeks	8						
Total U/G Crew Weeks	8						
TOTAL	16	\$88,995	\$13,120	\$54,441	\$320	\$53,130	

TOTAL PROJECT COST: **\$210,005**

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

System Projects

Capital Project Name: 7. Stepdown Area Upgrades - All Towns

Reason for Expenditures:

There are 32 +/- stepdown areas in the RMLD service territory. These are areas on the RMLD distribution system that were originally fed from 4kV distribution circuits. When the RMLD began moving load over to the 13.8kV distribution circuits, most areas were converted and some areas were re-fed with pole-mounted stepdown transformers. Most of the distribution system in these areas are 30+ years old and in need of upgrades before they can be converted.

Brief Description/Scope:

Replace poles, primary cable, secondary cable, and overhead transformers, as needed, in the various stepdown areas. Convert areas to 13.8kV and remove stepdown transformers.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$77,606	\$77,606	\$77,606		\$232,817

TOTAL PROJECT COST: \$232,817

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Stepdown Area Upgrades - All Towns

CAPITAL PROJECT NUMBER: 7

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Install 7000 feet of 1/0 primary	4	\$44,497	\$6,560			\$7,000	\$58,057
Unit Cost		\$11,124.35	\$1,640				
Install 7000 feet of 4/0 - 3/C sec cable	6	\$66,746	\$9,840			\$14,000	\$90,586
Unit Cost		\$11,124.35	\$1,640			\$2 per foot	
Replace 15 transformers	3	\$33,373	\$4,920			\$21,000	\$59,293
Unit Cost		\$11,124.35	\$1,640			\$1,400 per transformer	
Unit Cost							
Miscellaneous Hardware \$200/pole for approx 65 poles						\$13,000	\$13,000
Unit Cost							
Engineering 2 weeks				\$7,081			\$7,081
Unit Cost				\$3,540.25			
Police Details (if applicable) 2 weeks						\$4,800	\$4,800
Unit Cost						\$2,400	
Total RMLD Crew Weeks		13					
Total U/G Crew Weeks							
TOTAL		13	\$144,616	\$21,320	\$7,081	\$59,800	

TOTAL PROJECT COST: **\$232,817**

STATION UPGRADES

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Station Upgrades

Capital Project Name: 8. Relay Replacement Project - Gaw Station (Carryover)

Reason for Expenditures:

Replace the existing electromechanical protective relay systems on the 15kV feeder breakers at Gaw Substation. These relays will be able to provide more information back to the SCADA, and they also store vast amounts of data for down loading and evaluating.

This project is a full carryover from FY13.

Brief Description/Scope:

Replace relays and rewire feeder cubicle for installation of this equipment previously purchased. Test and commission new relays.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$19,529	\$58,590	\$39,061		\$117,181

TOTAL PROJECT COST: **\$117,181**

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Relay Replacement Project - Gaw Station (Carryover)

CAPITAL PROJECT NUMBER: 8

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Miscellaneous materials, i.e. wire, test blocks, terminals, panels, etc.						\$2,000	\$2,000
		Unit Cost					See box at left.
Senior Techs (2)				\$61,946			\$61,946
12.0 weeks		Unit Cost					\$2,581 per week
Technical Services Manager				\$32,235			\$32,235
9.0 weeks		Unit Cost					\$3,582 per week
Engineering Consultant design and inter-connection and as built plans						\$15,000	\$15,000
		Unit Cost					See box at left.
Electrical testing contractor testing and commissioning						\$6,000	\$6,000
		Unit Cost					See box at left.
		Unit Cost					
Police Details (if applicable)							
		Unit Cost					

Total RMLD Crew Weeks
Total U/G Crew Weeks

TOTAL	\$94,181	\$23,000
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TOTAL PROJECT COST: \$117,181

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Station Upgrades

Capital Project Name: 9. Gaw Station 35 kv Potential Transformer Replacement

Reason for Expenditures:

The existing Potential Transformers are 30 plus years old and are in need of replacement.

Brief Description/Scope:

Purchase and replace six (6) 35kV Potential Transformers. Replace steel conduit and associated control wiring.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014		\$40,288			\$40,288

TOTAL PROJECT COST: \$40,288

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Gaw Station 35 kv Potential Transformer (PT) Replacement

CAPITAL PROJECT NUMBER: 9

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Purchase six (6) 35kv PTs and miscellaneous equipment.	4-Man					\$20,000	\$20,000
Unit Cost						\$3,333	See box at left.
Mount new PTs.	0.5	\$5,562	\$820				\$6,382
Unit Cost		\$11,124.35	\$1,640			per week	
Senior Tech (2 men) Conduit replacement and control wiring. 2.0 weeks				\$10,324			\$10,324
Unit Cost				\$5,162		per week	
Technical Service Manager 1 week				\$3,582			\$3,582
Unit Cost				\$3,582		per week	
Unit Cost							
Police Details (if applicable)							
Unit Cost							
Total RMLD Crew Weeks	0.5						
Total U/G Crew Weeks							
TOTAL	1	\$5,562	\$820	\$13,906		\$20,000	

TOTAL PROJECT COST: \$40,288

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Station Upgrades

Capital Project Name: 10. Station 3 - Replacement of Service Cutouts

Reason for Expenditures:

The existing station service cutouts are potted porcelain cutouts and are prone to failure. Also, animal protection will be installed on various equipment.

Brief Description/Scope:

Replace six (6) 15 kV cutouts. Installation of various animal guards on numerous pieces of equipment.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014				\$30,126	\$30,126

TOTAL PROJECT COST: \$30,126

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Station 3 - Replacement of Service Cutouts

CAPITAL PROJECT NUMBER: 10

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
4-Man							
Purchase of six (6) cutouts and various animal guards						\$15,000	\$15,000
Unit Cost						See box at left.	
Replace six (6) cutouts.	0.5	\$5,562	\$820				\$6,382
Unit Cost						\$11,124	\$1,640
						per week	
Senior Tech (2 men) Installation of various animal protection 1.0 weeks				\$5,162			\$5,162
Unit Cost						\$5,162	per week
Technical Services Manager 1 week				\$3,582			\$3,582
Unit Cost						\$3,582	per week
Unit Cost							
Unit Cost							
Police Details (if applicable)							
Unit Cost							

Total RMLD Crew Weeks 0.5
Total U/G Crew Weeks

TOTAL	\$5,562	\$820	\$8,744	\$15,000
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TOTAL PROJECT COST: \$30,126

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Station Upgrades

Capital Project Name: 11. Station 4 Getaway Replacement 4W9

Reason for Expenditures:

Underground cables are original to the substation construction in the early 1970's. RMLD has been upgrading the feeders for load and reliability reasons. Feeders 4W9 are rated at 10 MW, and after this project will be rated at 15 MW.

Brief Description/Scope:

Replace underground feeder cables on circuit 4W9 from substation out to riser pole. Splice out cables in manholes and terminate cables at riser pole and switchgear

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$245,147				\$245,147

TOTAL PROJECT COST: \$245,147

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Station 4 Getaway Replacement - 4W9

CAPITAL PROJECT NUMBER: 11

PROJECT NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Reconductor 4W9 U/G Cable 8,500 feet of 750 MCM CU	2	\$23,361	\$3,444			\$170,000	\$196,805
Unit Cost		\$11,124	\$1,640			\$20 See box at left.	
Underground Contractor	2-Man 4.2	\$24,864	\$168				\$25,032
Unit Cost		\$5,920.00	\$40			per week	
18 splices @\$225 6 terminations @ \$225 fire proof tape - \$450						\$5,850	\$5,850
Unit Cost						See box at left.	
Unit Cost							
Engineering Labor				\$3,540			\$3,540
1 Week				\$3,540		per week	
Unit Cost							
Unit Cost							
Police Details (if applicable)						\$13,920	\$13,920
5.0 weeks incl 2 details/4 days							See box at left.
Unit Cost							
Unit Cost							
Total RMLD Crew Weeks	2.1						
Total U/G Crew Weeks	4.2						
TOTAL	6.3	\$48,225	\$3,612	\$3,540		\$189,770	

TOTAL PROJECT COST: **\$245,147**

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Station Upgrades

Capital Project Name: 15. Station 5 - Getaway Replacements 5W9 and 5W10

Reason for Expenditures:

Underground cables are original to the substation construction in the early 1980's. RMLD has been upgrading the feeders for load and reliability reasons at Station 4. This project follows suit with Station 5. This project will also create a spare feeder on Bus E at the 5W10 position.

Brief Description/Scope:

Reconductor 400 circuit feet of 5W9 with 750 mcm CU underground cable to match the aerial cable size. Install 600 circuit feet of 750 mcm CU underground cable from the 5W10 cubicle to riser pole 28, Wildwood Street.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014			\$95,343		\$95,343

TOTAL PROJECT COST: \$95,343

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Station 5 - Getaway Replacements 5W9 and 5W10

CAPITAL PROJECT NUMBER: 15

PROJECT NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Reconductor 5W9 U/G Cable 1,200 feet of 750 MCM CU	0.6	\$6,675	\$984			\$24,000	\$31,659
Unit Cost		\$11,124	\$1,640			\$20 per foot	
Reconductor 5W10 U/G Cable 1,800 feet of 750 MCM CU	0.6	\$6,675	\$984			\$36,000	\$43,659
Unit Cost		\$11,124.35	\$1,640			\$20 per foot	
3 splices @ \$225 9 terminations @ \$225 Fire Proof tape - \$150						\$2,850	\$2,850
Unit Cost						See box at left	
Underground Contractor	2-Man 2	\$11,840	\$80				\$11,920
Unit Cost		\$5,920	\$40			per week	
Engineering Labor				\$1,416			\$1,416
0.4 weeks				\$3,540			per week
Unit Cost							
Police Details (if applicable)						\$3,840	\$3,840
1.6 week						\$2,400 per week	

Total RMLD Crew Weeks 1.2
Total U/G Crew Weeks 2.0

TOTAL	3.2	\$25,189	\$2,048	\$1,416	\$66,690
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TOTAL PROJECT COST: **\$95,343**

SCADA PROJECTS

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

SCADA Projects:

Capital Project Name: 30. Remote Terminal Unit (RTU) Replacement 3

Reason for Expenditures:

The existing RTU was installed in 2000 and uses a legacy TeleGyr 8979 protocol. This was done so that it would work with the old TeleGyr SCADA system. The existing RTU is not IP addressable, nor does it have an Ethernet connection. The RTU needs to be upgraded to add the functionality of the existing SEL relays at Station 3. A new RTU will give the Department the ability to communicate with the SEL relays, similar to what is being done at Station 4.

Brief Description/Scope:

Bid and purchase a pre-wired RTU enclosure that will replace the existing RTU enclosure at Station 3. Station Supervisor and Senior Technicians will re-wire and terminate control wiring within the new RTU cabinet. Engineering will program and configure SCADA for new comm-line and RTU.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014			\$84,109		\$84,109

TOTAL PROJECT COST: \$84,109

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: RTU Replacement - Station 3

CAPITAL PROJECT NUMBER: 30

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Purchase RTU and pre-wired enclosure and miscellaneous equipment						\$55,000	\$55,000
		Unit Cost		See box at left.			
Senior Tech - mount and rewire SCADA points from interposition cabinet to new RTU				\$7,743.19			\$7,743
3 weeks		Unit Cost		\$2,581	per week		
Technical Services Manager				\$10,745			\$10,745
3 weeks		Unit Cost		\$3,581.67	per week		
Engineering - Create new DNP com line and program SCADA master.				\$10,621			\$10,621
3 weeks		Unit Cost		\$3,540.25	per week		
		Unit Cost					
Police Details (if applicable)							
		Unit Cost					
Total RMLD Crew Weeks							
Total U/G Crew Weeks							
TOTAL				\$29,109		\$55,000	

TOTAL PROJECT COST: **\$84,109**

**NEW CUSTOMER SERVICE
CONNECTIONS**

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

New Customer Service Connections

Capital Project Name: 12. Service Installations-Commercial/Industrial

Reason for Expenditures:

To install new and upgraded commercial three-phase electrical services to businesses in the service territory.

Brief Description/Scope:

Installation of three-phase commercial/industrial services requiring a four-man crew to perform the work.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$13,887	\$13,887	\$13,887	\$13,887	\$55,549

TOTAL PROJECT COST: **\$55,549**

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Service Installations-Commercial/Industrial

CAPITAL PROJECT NUMBER: 12

WORK ORDER NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Installation of new commercial/industrial service connections.	3	\$33,373	\$4,920			\$17,256	\$55,549
	Unit Cost	\$11,124	\$1,640	See box at left.			
	Unit Cost						
	Unit Cost						
	Unit Cost						
	Unit Cost						
	Unit Cost						
Police Details (if applicable)	Unit Cost						

Total RMLD Crew Weeks 3.0
 Total U/G Crew Weeks

TOTAL	3.0	\$33,373	\$4,920	\$17,256
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TOTAL PROJECT COST \$55,549

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

New Customer Service Connections

Capital Project Name: 13. Service Installations - Residential Customers

Reason for Expenditures:

To install new and upgraded services to residential ratepayers.

Brief Description/Scope:

Installation of residential services for single, duplex, or multi-family dwellings requiring one two-man crew to perform the work.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$50,076	\$50,076	\$50,076	\$50,076	\$200,302

TOTAL PROJECT COST: **\$200,302**

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Service Installations - Residential Customers

CAPITAL PROJECT NUMBER: 13

WORK ORDER NUMBER: 14-

ITEM	CREW WEEKS 2-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Labor for installation of new and upgraded service connections. 360 units per year (approx)	24*	\$133,492	\$10,560				\$144,052
	Unit Cost	\$11,124.35	\$880				
Service cable for new and upgraded service connections. 75-100 feet per installation (approx)						\$56,250	\$56,250
	Unit Cost					\$1.70 per foot	
	Unit Cost						
	Unit Cost						
	Unit Cost						
Police Details (if applicable)							
	Unit Cost						

Total RMLD Crew Weeks 12.0 *24 two-man crews; convert to 12 four-man crews.
 Total U/G Crew Weeks

	TOTAL	12.0	133,492	\$10,560	\$56,250
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TOTAL PROJECT COST **\$200,302**

ROUTINE CONSTRUCTION

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Routine Construction

Capital Project Name: 14. Routine Construction

Reason for Expenditures:

Covers capital projects that develop during the year involving items shown below.

Brief Description/Scope:

- a) Capital Construction - transformer installation, overhead and underground system upgrades, miscellaneous projects, pole damage, etc.
- b) Street Lights - new equipment installation
- c) Pole Setting/Transfers
- d) Engineering Labor
- e) General Line Foreman Labor
- f) Underground Capital Construction
- g) Police Details
- h) Overtime

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$253,576	\$253,576	\$253,576	\$253,576	\$1,014,306

TOTAL PROJECT COST: \$1,014,306

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Routine Construction

CAPITAL PROJECT NUMBER: 14

WORK ORDER NUMBER: 14-

ITEM	CREW WEEKS	CREW LABOR COST	CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
a) Capital Construction	4-Man 20	\$222,487	\$32,800			\$50,000	\$305,287
	Unit Cost	\$11,124	\$1,640			N/A per week	
b) Street Light Installations	2-Man* 6	\$33,373	\$5,280			\$25,000	\$63,653
	Unit Cost	\$5,562.17	\$440			N/A per week	
c) Pole Setting/Transfers	4-Man 12	\$133,492	\$19,680			\$35,000	\$188,172
	Unit Cost	\$11,124.35	\$1,640			N/A per week	
d) Engineering Labor 8.0 weeks				\$28,322			\$28,322
	Unit Cost			\$3,540		per week	
e) General Line Foreman Labor 26.0 weeks				\$83,517			\$83,517
	Unit Cost			\$3,212		per week	
f) U/G Construction	2-Man 6	\$35,520	\$240			\$75,000	\$110,760
	Unit Cost	\$5,920	\$40			N/A per week	
g) Police Details 20.0 weeks						\$48,000	\$48,000
	Unit Cost					\$2,400 per week	
h) Overtime	4-Man 15	\$161,995	\$24,600				\$186,595
	Unit Cost	\$10,799.65	\$1,640			per week	
Total RMLD Crew Weeks		50.0	35.0				
Total U/G Crew Weeks		6.0					
TOTAL		56.0	\$586,867	\$82,600	\$111,839	\$233,000	

TOTAL PROJECT COST **\$1,014,306**

*6 two-man crews; convert to 3 four-man crews.

OTHER PROJECTS

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 16. Transformers

Reason for Expenditures:
 A major quantity of standard units is necessary for proposed projects and stock for FY14.

Brief Description/Scope:

a) Three-phase padmount transformer (commercial services)	Quantity: 5 units
b) Single-phase padmount transformer (FR3) (residential services)	Quantity: 30 units
c) Three-phase polemount transformer for proposed projects and stock	Quantity: 8 units
d) Single-phase polemount transformer (residential services)	Quantity: 60 units

Allowance = Actual sizes and numbers determined during the year. All other items based on special numbers to be bid.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014			\$142,000	\$142,000	\$284,000

TOTAL PROJECT COST: **\$284,000**

Fiscal 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 17A. Meter Purchases

Reason for Expenditures:

Purchase of meters and metering equipment for new construction, upgrades, and failures.

Brief Description/Scope:

- | | |
|--|---------------|
| a) Residential Time-of-Use (TOU) ERT Meter - AMR | Quantity: 100 |
| b) Primary Metering Potential Transformers | Quantity: 24 |
| c) Primary Metering Current Transformers | Quantity: 24 |
| d) Secondary Current Transformers | Quantity: 60 |

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014		\$69,000		\$69,000	\$138,000

TOTAL PROJECT COST: **\$138,000**

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Meter Purchases

CAPITAL PROJECT NUMBER: 17A

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
a) Residential TOU ERT Meter AMR						\$20,000	\$20,000
100 units		Unit Cost				\$200 each	
b) Primary Metering Potential Transformers						\$48,000	\$48,000
24 units		Unit Cost				\$2,000 each	
c) Primary Metering Current Transformers						\$48,000	\$48,000
24 units		Unit Cost				\$2,000 each	
d) Secondary Current Transformers						\$12,000	\$12,000
60 units		Unit Cost				\$200 each	
e) Locking Sealing Rings, Seals & Meter Switches.						\$10,000	\$10,000
		Unit Cost				See box at left.	
		Unit Cost					
Police Details (if applicable)		Unit Cost					

Total RMLD Crew Weeks
Total U/G Crew Weeks

TOTAL \$138,000

TOTAL PROJECT COST: **\$138,000**

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 17C. AMR High-Powered ERT Commercial Meter Upgrade
(Partial Carryover)

Reason for Expenditures:
As in the residential upgrade, the existing first-generation, low-powered ERT commercial meters have been in service for a period that has eclipsed the manufacturer's recommendations. Replacement of the commercial meters has been planned following the residential meter upgrade project.

Brief Description/Scope:
The RMLD began changing out all low-powered ERT commercial meters in FY13. In the same fashion as the residential upgrade, the data will be transmitted to the RMLD via the fiber optic system which encircles the territory. The new data will provide reads at the desktop, additional consumption information, and outage notification.

This fixed network offers the ability to remotely:

- a. perform all reads from the office;
- b. amend the frequency of reads to maintain the read cycle;
- c. monitor and discuss customer usage from a monthly, daily or hourly perspective;
- d. receive immediate outage and restoration notification without customer intervention.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$57,301	\$57,301			\$114,601

TOTAL PROJECT COST: **\$114,601**

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: AMR High-Powered ERT Comm. Meter Upgrade Project (Partial Carryover)

CAPITAL PROJECT NUMBER: 17C

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Technical Services Department Senior Meter Techs							
2.0 weeks (2 men)				\$9,830			\$9,830
1.0 week (2 men) OT				\$4,771			\$4,771
See box at left.							
Materials and costs:							
300 meters at \$300 each						\$90,000	\$90,000
miscellaneous costs						\$10,000	\$10,000
Unit Cost						See box at left.	
							\$0
Unit Cost							
Unit Cost							
							\$0
Unit Cost							
Police Details							
weeks							
Unit Cost							

Total RMLD Crew Weeks
Total U/G Crew Weeks

TOTAL	\$0	\$0	\$14,601	\$0	\$100,000
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TOTAL PROJECT COST: **\$114,601**

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 17D. AMR High-Powered ERT 500 Club Upgrade Project

Reason for Expenditures:

The existing "500 Club" meters are manually read meters. The proposal is to replace the existing meters with meters that can be read remotely with the fixed network system.

Brief Description/Scope:

The RMLD will begin changing out all "500 Club" commercial meters. In the same fashion as the commercial upgrade, the data will be transmitted to the RMLD via the fiber optic system which encircles the territory. The new data will provide reads at the desktop and additional consumption information.

This fixed network offers the ability to remotely:

- a. perform all reads from the office;
- b. amend the frequency of reads to maintain the read cycle;
- c. monitor and discuss customer usage from a monthly, daily, or hourly perspective.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014			\$92,713		\$92,713

TOTAL PROJECT COST: \$92,713

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: AMR High-Powered ERT 500 Club Meter Upgrade Project

CAPITAL PROJECT NUMBER: 17D

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Technical Services Department							
Meter installation:							
2.0 weeks-Station Techs (2 men)				\$10,324			\$10,324
1.0 week - Station Techs (2 men) OT				\$5,011			\$5,011
1.0 week-Technical Services Manager				\$3,582			\$3,582
		Unit Cost		See box at left.			
Materials and Costs:							
Meter Costs (100@\$500 each)						\$50,000	\$50,000
Miscellaneous Costs						\$5,000	\$5,000
		Unit Cost		See box at left.			
MIS - Support and Testing				\$15,256			\$15,256
6.5 weeks							
		Unit Cost		\$2,347	per week		
		Unit Cost					
Engineering labor				\$3,540			\$3,540
1.0 weeks							
		Unit Cost		\$3,540	per week		
Police Details							
weeks							
		Unit Cost					
Total RMLD Crew Weeks							
Total U/G Crew Weeks							
TOTAL		<u>\$0</u>	<u>\$0</u>	<u>\$37,713</u>	<u>\$0</u>	<u>\$55,000</u>	

TOTAL PROJECT COST: \$92,713

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 18. Purchase New Pick-up Trucks

Reason for Expenditures:

Replace two existing vehicles with two new pick-up trucks and dispose of the older as surplus.

Vehicle #30: 1999 Ford Econoliner van with approximately 75,000 miles; replace with a full size 4x4 pick-up for the Line Department.

Vehicle #31: 2001 Ford Ranger pick-up with approximately 78,000 miles; vehicle has high maintenance costs.

Brief Description/Scope:

Purchase new 4x4 full-size pick-up truck for Line Department. Existing vehicle (#30) will then be evaluated and used as a spare or removed from the fleet.

Purchase new 4x4 light duty pick-up truck for Meter Department. Existing vehicle (#31) will then be evaluated and used as a spare or removed from the fleet.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014			\$70,000		

TOTAL PROJECT COST: \$70,000

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 19. Purchase Two New Line Department Vehicles

Reason for Expenditures:

Replace 55-foot bucket truck (existing vehicle #44) and 40-foot bucket truck (existing vehicle #10).

Note: Trucks were approved to purchase in FY13. This request is for funding in FY14 when trucks are delivered.

Brief Description/Scope:

Both of these vehicles have been ordered to prepare to take possession in FY14. The lead-time is almost one year. These vehicles are scheduled to arrive in January 2014.

55-foot Bucket Truck \$210,000

40-foot Bucket Truck \$190,000

The Department is trying to move toward ordering and taking possession of Line Department vehicles in the same fiscal year. In FY15 ordering will take place in the same fiscal year as the expected possession of the vehicle.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014			\$400,000		\$400,000

TOTAL PROJECT COST: \$400,000

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Purchase Two New Line Department Vehicles

CAPITAL PROJECT NUMBER: 19

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
One new 55-foot bucket truck						\$210,000	\$210,000
	Unit Cost					\$210,000 per truck	
One new 40-foot bucket truck						\$190,000	\$190,000
	Unit Cost					\$190,000 per truck	
	Unit Cost						
	Unit Cost						
	Unit Cost						
Police Details (if applicable)							
	Unit Cost						

Total RMLD Crew Weeks
Total U/G Crew Weeks

TOTAL \$400,000

TOTAL PROJECT COST: **\$400,000**

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 20. Build Covered Storage (Multi-year Project)

Reason for Expenditures:
 Build covered storage for equipment and vehicles - engineer, design, permitting, and site work.

Brief Description/Scope:
 FY14: Engineer, design, permitting, follow bid process, and site work.
 FY15: Build covered storage to protect equipment, vehicles, and material from weather.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014				\$150,000	\$150,000

TOTAL PROJECT COST: \$150,000

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Build Covered Storage (Multi-year Project)

CAPITAL PROJECT NUMBER: 20

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Engineering, Design and Permitting 2 Weeks Electrician/Mechanical Maintenance Worker				\$5,020		\$144,980	\$150,000
	Unit Cost			\$2,510		See box at left.	
	Unit Cost						
	Unit Cost						
	Unit Cost						
	Unit Cost						
Police Details (if applicable)							
	Unit Cost						

Total RMLD Crew Weeks
Total U/G Crew Weeks

TOTAL	\$5,020	\$144,980
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TOTAL PROJECT COST: \$150,000

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 21. HVAC System Upgrade (Multi-year Project)

Reason for Expenditures:
 HVAC System: Replace old and inefficient HVAC equipment in need of significant repairs. One of two chillers is not repairable and the boilers are leaking.

Brief Description/Scope:
 Replace two Yazaki chillers (fall 2014) and two HB Smith boilers (spring of 2015) original to the building. All units will be replaced with high efficiency equipment.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014		\$150,000		\$125,000	\$275,000

TOTAL PROJECT COST: \$275,000

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: HVAC System Upgrade (Multi-year Project)

CAPITAL PROJECT NUMBER: 21

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Replace chillers and boilers 4 Weeks Electrician/Mechanical Maintenance Worker				\$10,040		\$264,960	\$275,000
Unit Cost				\$2,510		See box at left.	
Unit Cost							
Unit Cost							
Unit Cost							
Unit Cost							
Unit Cost							

Total RMLD Crew Weeks
Total U/G Crew Weeks

TOTAL	\$10,040	\$264,960
	\$10,040	\$264,960

TOTAL PROJECT COST: \$275,000

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 22. Engineering Analysis Software and Data Conversion
(Partial Carryover)

Reason for Expenditures:

Software will be purchased in FY13. The data conversion will be done in FY14 and will allow the Engineering Department to perform engineering analysis on the distribution system. Internally, the Department will be able to perform fault current calculations, arc flash calculations, load flow and voltage drop calculations, load balancing, and voltage regulator settings, etc. This software will work with the existing coordination software that the Engineering Department uses.

Brief Description/Scope:

Take the existing databases and core ESRI data collected for the GIS project and have it converted for use in the electric model by the software provider. Purchase vendor services necessary to perform the engineering analysis and update map/land-base data. Purchase of server for software and databases.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$18,540	\$18,540.25			\$37,081

TOTAL PROJECT COST: **\$37,081**

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Engineering Analysis Software and Data Conversion (Partial Carryover)

CAPITAL PROJECT NUMBER: 22

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Database Conversion: Professional Services						\$25,000	\$25,000
	Unit Cost See box at left.						
Server						\$5,000	\$5,000
	Unit Cost						
Engineering Labor:				\$7,081			\$7,081
2.0 weeks				\$3,540		per week	
	Unit Cost						
	Unit Cost						
Police Details (if applicable)							
	Unit Cost						

Total RMLD Crew Weeks
Total U/G Crew Weeks

TOTAL	\$7,081	\$30,000
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TOTAL PROJECT COST: \$37,081

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 23. New Radio System (Multi-year Project)

Reason for Expenditures:

Radio System - replace existing radio system.

Note: Decision to be made whether to lease or purchase.

Brief Description/Scope:

Replace existing radio system with new digital system providing better coverage and added features.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014		\$100,000			\$100,000

TOTAL PROJECT COST: \$100,000

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: New Radio System (Multi-year Project)

CAPITAL PROJECT NUMBER: 23

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Replace existing radio system 2 Weeks Electrician/Mechanical Maintenance Worker				\$5,020		\$94,980	\$100,000
	Unit Cost						#DIV/0! See box left.
	Unit Cost						
	Unit Cost						
	Unit Cost						
	Unit Cost						
	Unit Cost						
Police Details (if applicable)	Unit Cost						

Total RMLD Crew Weeks
Total U/G Crew Weeks

TOTAL	\$5,020	\$94,980
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TOTAL PROJECT COST: \$100,000

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 24. Repairs - 226 Ash Street, Station 1 (Multi-year Project)

Reason for Expenditures:

Station 1 Preservation Project - Phase 1 Exterior Construction

Brief Description/Scope:

FY2014 - Phase 1: Exterior Construction

Masonry Repairs

Repair/Replace Windows and Doors \$520,000

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$200,000	\$320,000			\$520,000

TOTAL PROJECT COST: \$520,000

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Repairs - 226 Ash Street, Station 1 (Multi-year Project)

CAPITAL PROJECT NUMBER: 24

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Station 1: Exterior Construction 2 Weeks Electrician/Mechanical Maintenance Worker				\$5,020		\$514,980	\$520,000
	Unit Cost			\$2,510		See box at left.	
	Unit Cost						
	Unit Cost						
	Unit Cost						
	Unit Cost						
Police Details (if applicable)							
	Unit Cost						

Total RMLD Crew Weeks

Total U/G Crew Weeks

TOTAL	\$5,020	\$514,980
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TOTAL PROJECT COST: \$520,000

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 26. Communication Equipment

Reason for Expenditures:

As the RMLD expands its use of the fiber optic network, each device requires an enclosure, a fiber optic interface, a power supply, cabling, fiber optic cable, and the termination of the fiber optic cable.

Brief Description/Scope:

Purchase materials and procure fiber optic cable splicers as needed.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	TOTAL
Fiscal 2014	\$25,000	\$25,000	\$25,000	\$25,000	\$100,000

TOTAL PROJECT COST: \$100,000

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Communication Equipment

CAPITAL PROJECT NUMBER: 26

PROJECT NUMBER: 14-

ITEM	CREW WEEKS 4-Man	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
Materials and Labor				\$25,000		\$75,000	\$100,000
		Unit Cost					
		Unit Cost					
		Unit Cost					
		Unit Cost					
		Unit Cost					
		Unit Cost					
		Unit Cost					

Total RMLD Crew Weeks
Total U/G Crew Weeks

	\$25,000	\$75,000
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TOTAL PROJECT COST: **\$100,000**

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 27. Hardware Upgrades

Reason for Expenditures:

- a) This is an amount annually reserved for failed and/or obsolete computer and related equipment. This budget item is also used for unforeseen purchases which may be necessary.
- b) Complete replica of Virtual Machine Cluster at 230 Ash Street to North Reading Substation including all hardware, software (see software section) and labor. This will provide a remote site for business continuity should a disaster occur to the RMLD data system.
- c) Convert all digital phones to voice-over-IP and updates to fiber optic link(s) to accommodate this and other endeavors.
- d) Fiber optic work to extend network to Stations 3 and 4.

Brief Description/Scope:

See above.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Contingency	TOTAL
Fiscal 2014	\$45,250	\$45,250	\$45,250	\$45,250		\$181,000

TOTAL PROJECT COST:

\$181,000

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Hardware Upgrades

CAPITAL PROJECT NUMBER: 27

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
a) General hardware purchases.				\$7,000		\$40,000	\$47,000
2.98 weeks Network/System Administration							
	Unit Cost			\$2,347		per week	
b) Complete replica of Virtual Machine Cluster (equipment \$40,000; contract labor \$10,000)				\$2,000		\$50,000	\$52,000
0.85 weeks Network/System Administration							
	Unit Cost			\$2,347		per week	
c) Convert digital phones to VOIP (equipment \$65,000, contract labor \$10,000)						\$75,000	\$75,000
	Unit Cost						
d) Fiber Optic work to extend network to Stations 3 and 4 (contract labor)				\$2,000		\$5,000	\$7,000
0.85 weeks Network/System Administration							
	Unit Cost			\$2,347		per week	
	Unit Cost						
	Unit Cost						
	Unit Cost						

4.69 Total weeks of Network/System Administration

TOTAL	\$11,000	\$170,000
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TOTAL PROJECT COST: \$181,000

FISCAL 2014 CAPITAL BUDGET REQUEST SUMMARY

Other Projects

Capital Project Name: 28. Software and Licensing

Reason for Expenditures:

- a) Annual miscellaneous software purchases due to need/obsolescence. This could include, but not be limited to: MS SQL 2012, Windows 8, Windows Server 2012, Client Access Licenses, etc.
- b) VMware vSphere Essential Plus 5.1.
- c) Custom Programming/Development: GIS/GPS, OM/Fixed Network, CIS Integration, (carryover included).
- d) Veeam Backup and Recovery 6.5.
- e) Barracuda Energizer Updates - previous 3 year updates will expire this year.

Brief Description/Scope:

See above.

Cash Requirements:

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Contingency	TOTAL
Fiscal 2014	\$45,050	\$45,050	\$45,050	\$45,050		\$180,200

TOTAL PROJECT COST:

\$180,200

FISCAL 2014 CAPITAL BUDGET COST SHEET

CAPITAL PROJECT NAME: Software and Licensing

CAPITAL PROJECT NUMBER: 28

PROJECT NUMBER: 14-

ITEM	CREW WEEKS	RMLD CREW LABOR COST	RMLD CREW VEHICLE COST	OTHER LABOR	OTHER VEHICLE	NEW MATERIAL & MISC	TOTAL
a) General software purchases. 2.56 weeks Network/System Administration				\$6,000		\$30,000	\$36,000
		Unit Cost		\$2,347		per week	
b) VMware vSphere Essential Plus 5.1 (\$8,000 equipment; \$2,000 contract labor)						\$10,000	\$10,000
		Unit Cost					
c) Custom programming/development OM/UAN/GIS/GPS (contract labor)						\$120,000	\$120,000
		Unit Cost					
d) Veeam Back-up and Recovery 6.5 (\$6,200 equipment; \$1,500 contract labor)						\$7,700	\$7,700
		Unit Cost					
e) Barracuda Energizer Updates (equipment)						\$6,500	\$6,500
		Unit Cost					
		Unit Cost					
		Unit Cost					
TOTAL				\$6,000		\$174,200	

TOTAL PROJECT COST: **\$180,200**