

Metro Nashville
DISTRICT ENERGY SYSTEM



DES Advisory Board Meeting
Fourth Quarter FY13
August 15, 2013



Agenda

1. Call to Order
2. Review & Approval of Previous Meeting Minutes
3. Customer Sales
4. Review of DES Contractor Performance
5. Natural Gas Purchasing Status
6. FY13 Costs to Date
7. FY14 Budget
8. Capital Projects Review & Status Report Update
9. Other Board Member Items
10. Adjourn



1. *Call to Order*
2. *Review and Approval of
Previous Meeting Minutes*



3. Customer Sales

- ❖ Table 3: Customer Cost Comparison
- ❖ Figure 3: Historic Budgets

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Summary Table 3: Customer Cost Comparison for the Previous 12 Months

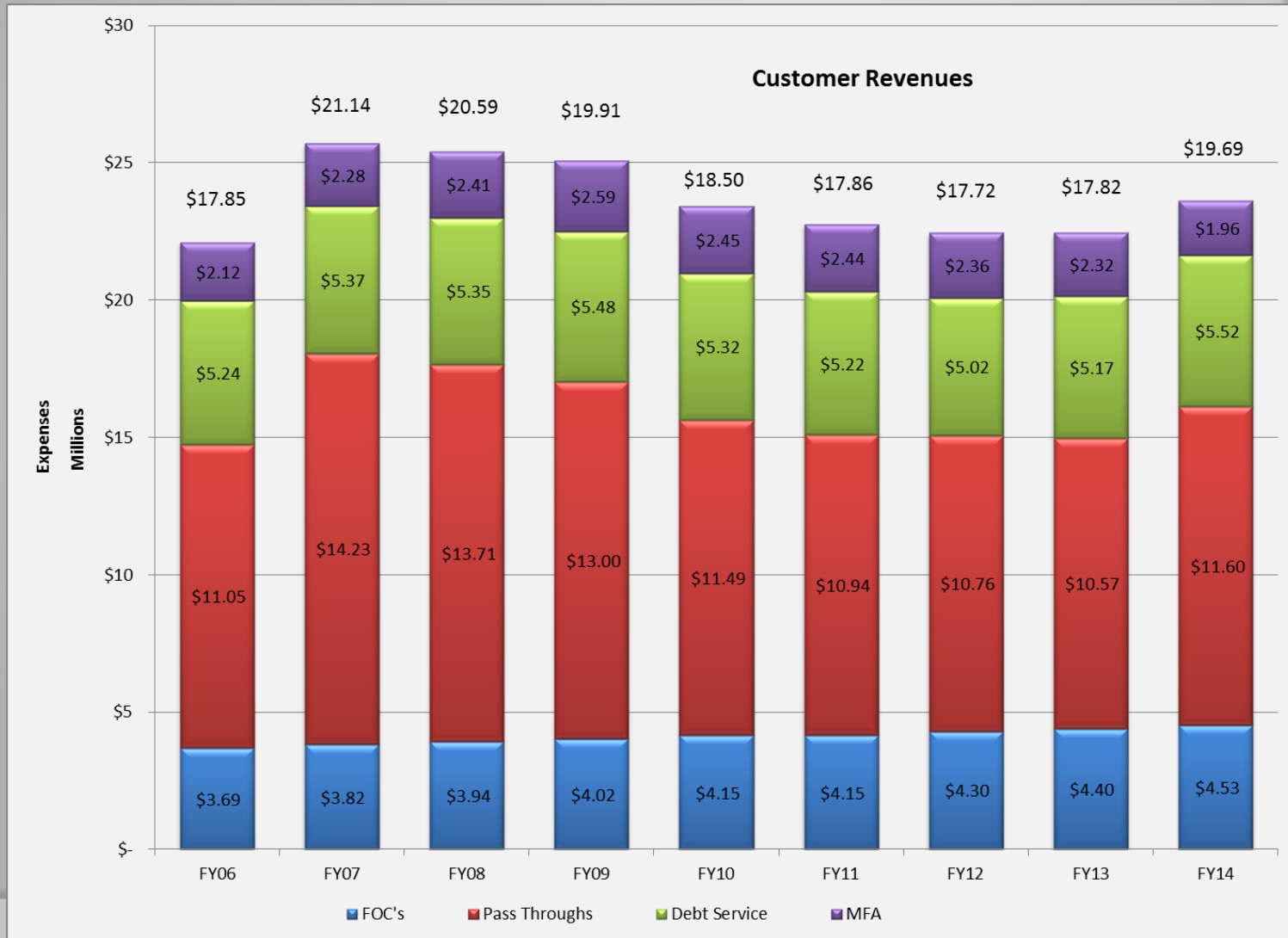
		Steam - Rolling 12 Month			Chilled Water - Rolling 12 Month		
		July 2011 - June 2012	July 2012 - June 2013	% Diff.	July 2011 - June 2012	July 2012 - June 2013	% Diff.
Private	Cost	\$ 1,454,423	\$ 1,335,369	-8.19%	\$ 3,449,011	\$ 3,361,048	-2.55%
	Usage (lbs or tonhrs)	79,259,590	86,617,922	9.28%	18,058,707	17,344,304	-3.96%
	Unit Cost	\$ 18.35	\$ 15.42	-16.0%	\$ 0.191	\$ 0.194	1.5%
State	Cost	\$ 1,854,011	\$ 1,870,844	0.91%	\$ 3,458,497	\$ 3,407,215	-1.48%
	Usage (lbs or tonhrs)	88,985,025	110,793,094	24.51%	17,405,473	16,456,479	-5.45%
	Unit Cost	\$ 20.84	\$ 16.89	-19.0%	\$ 0.199	\$ 0.207	4.2%
Metro	Cost	\$ 1,650,817	\$ 2,266,862	37.32%	\$ 3,861,819	\$ 4,592,658	18.92%
	Usage (lbs or tonhrs)	82,168,924	176,955,110	115.36%	21,768,429	28,736,817	32.01%
	Unit Cost	\$ 20.09	\$ 12.81	-36.2%	\$ 0.177	\$ 0.160	-9.9%
Aggregate	Cost	\$ 4,959,251	\$ 5,473,075	10.36%	\$ 10,769,328	\$ 11,360,922	5.49%
	Usage (lbs or tonhrs)	250,413,539	374,366,126	49.50%	57,232,609	62,537,600	9.27%
	Unit Cost	\$ 19.80	\$ 14.62	-26.2%	\$ 0.188	\$ 0.182	-3.46%

MFA not included in values shown

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Figure 3: Historic Budgets





4. *Review of DES Contractor Performance*

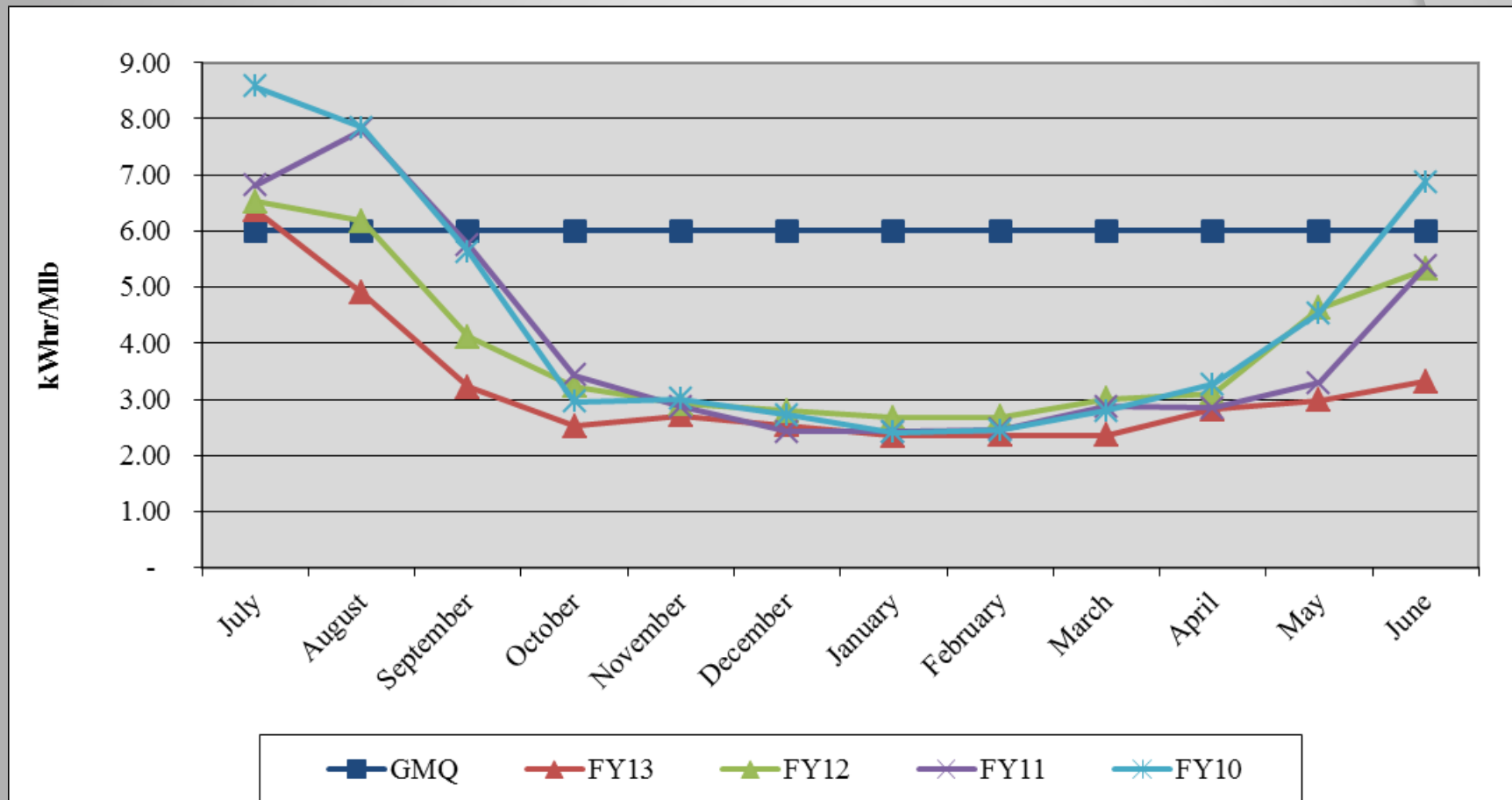
Contractor (CNE) is in compliance with their contractual obligations for FY13.

-  Excellent Performance – No Improvement Necessary
-  Satisfactory Performance – Some Improvement Could Be Made
-  Poor Performance – Much Improvement Necessary

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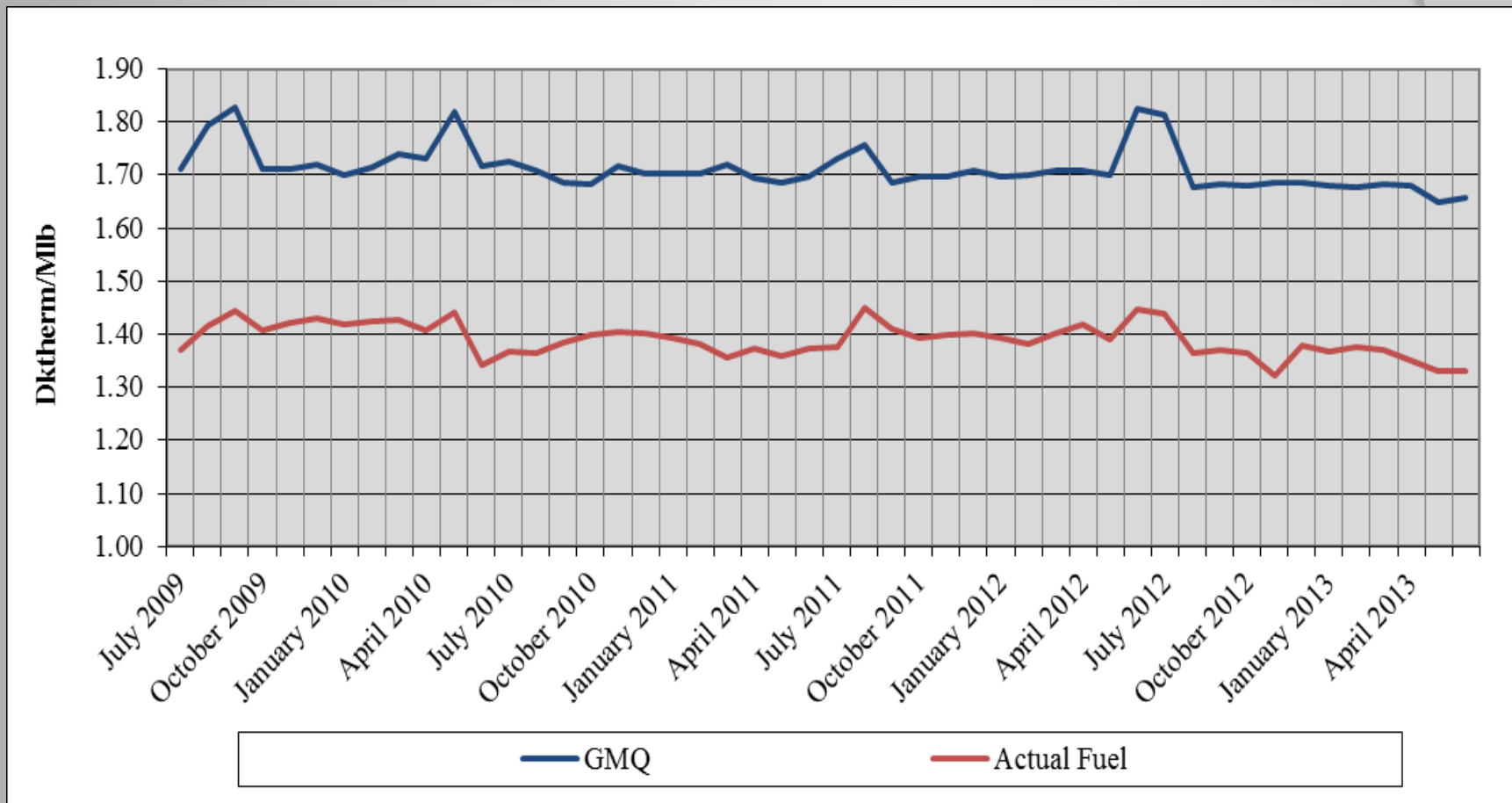
Performance Measurement FY13: Steam Electric Conversion ●



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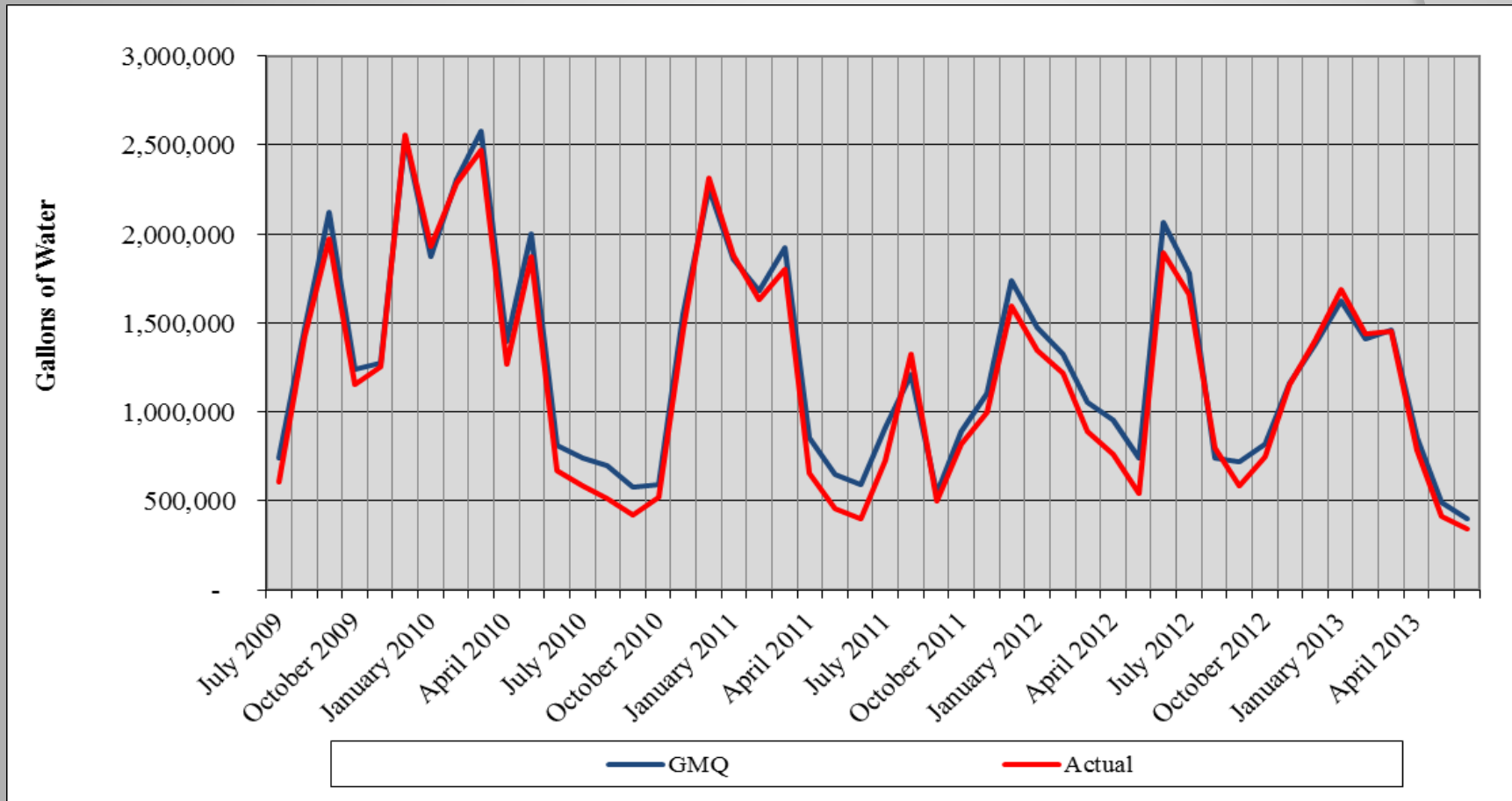
Performance Measurement FY13: Steam Plant Efficiency



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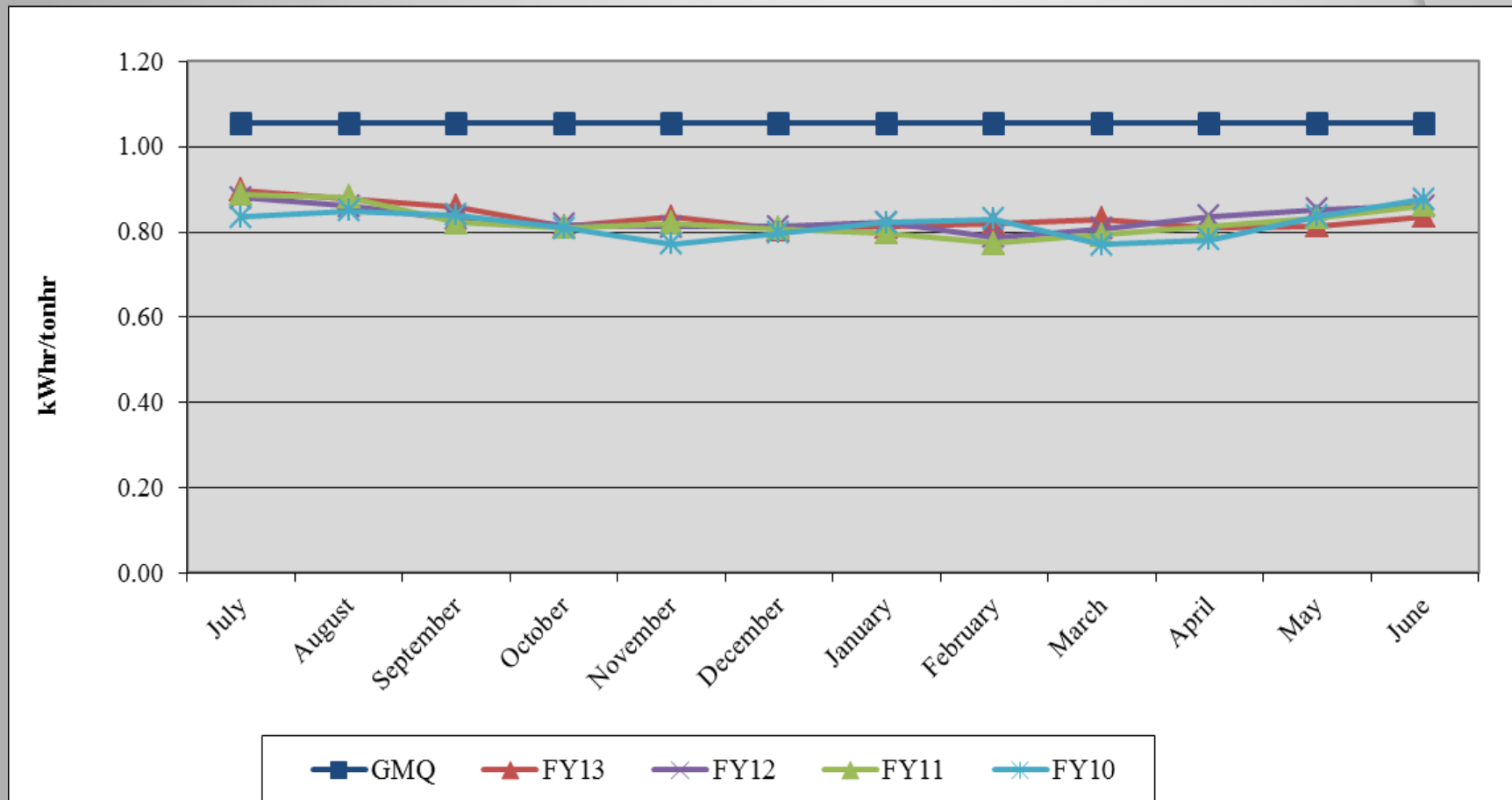
Performance Measurement FY13: Steam Water Conversion



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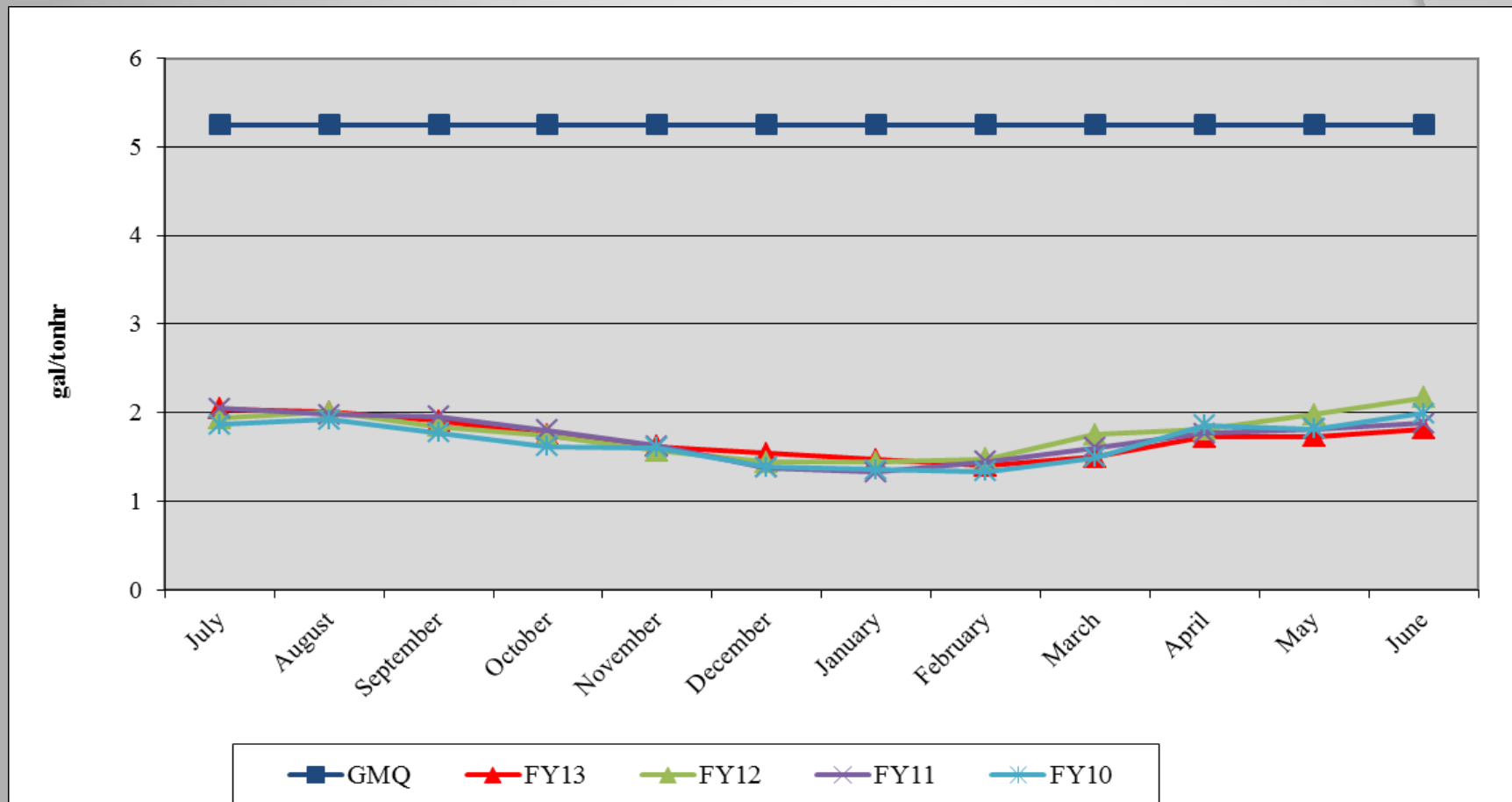
Performance Measurement FY13: CHW Electric Conversion ●



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Performance Measurement FY13: CHW Water Conversion ●





Water Treatment

❖ Steam and Condensate ●

- ❖ Corrosion
- ❖ Iron
- ❖ Hardness
- ❖ Chlorine/Sulfite

❖ Condensing Water ●

- ❖ Conductivity
- ❖ Biologicals

❖ Chilled Water ●

- ❖ Hardness
- ❖ Corrosion
- ❖ Biologicals



EGF Walkthrough

- ✓ Equipment Maintenance ●
- ✓ Operations ●
- ✓ Electrical ●
- ✓ Housekeeping ●
- ✓ Building Structure ●
- ✓ Building Exterior and Grounds ●



EDS Walkthrough

- ✓ Vault/Tunnel Housekeeping ●
- ✓ Maintenance Items ●
 - ✓ Insulation Repair/Replacement ●
 - ✓ Water Infiltration ●
 - ✓ Corrosion of Structural Metal Components ●
- ✓ Safety Items (DES 080 in closeout) ●



5. Natural Gas Purchasing

- ❖ Natural Gas Purchasing Review
 - ❖ Table 5: FY13 Gas Spending & Budget Comparison
 - ❖ Figure 5A: Actual and Projected Gas Cost Comparison
 - ❖ Figure 5B: Historic Hedging

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Table 5: FY13 Gas Spending & Budget Comparison

	Actual FY13 To date (June 30)	Budget FY13	Percent Difference
Steam Sendout (Mlbs)	433,527	389,000	-11.4%
Fuel Use (Dth) (includes propane)	● 590,241	538,230	-9.7%
Plant Eff (Dth/Mlb)	● 1.361	1.384	1.7%
Total Gas Cost (includes propane)	● \$2,494,848	\$2,274,022	-9.7%
Unit Cost of Fuel (\$/ Dth)	● \$4.227	\$4.225	>0.1%

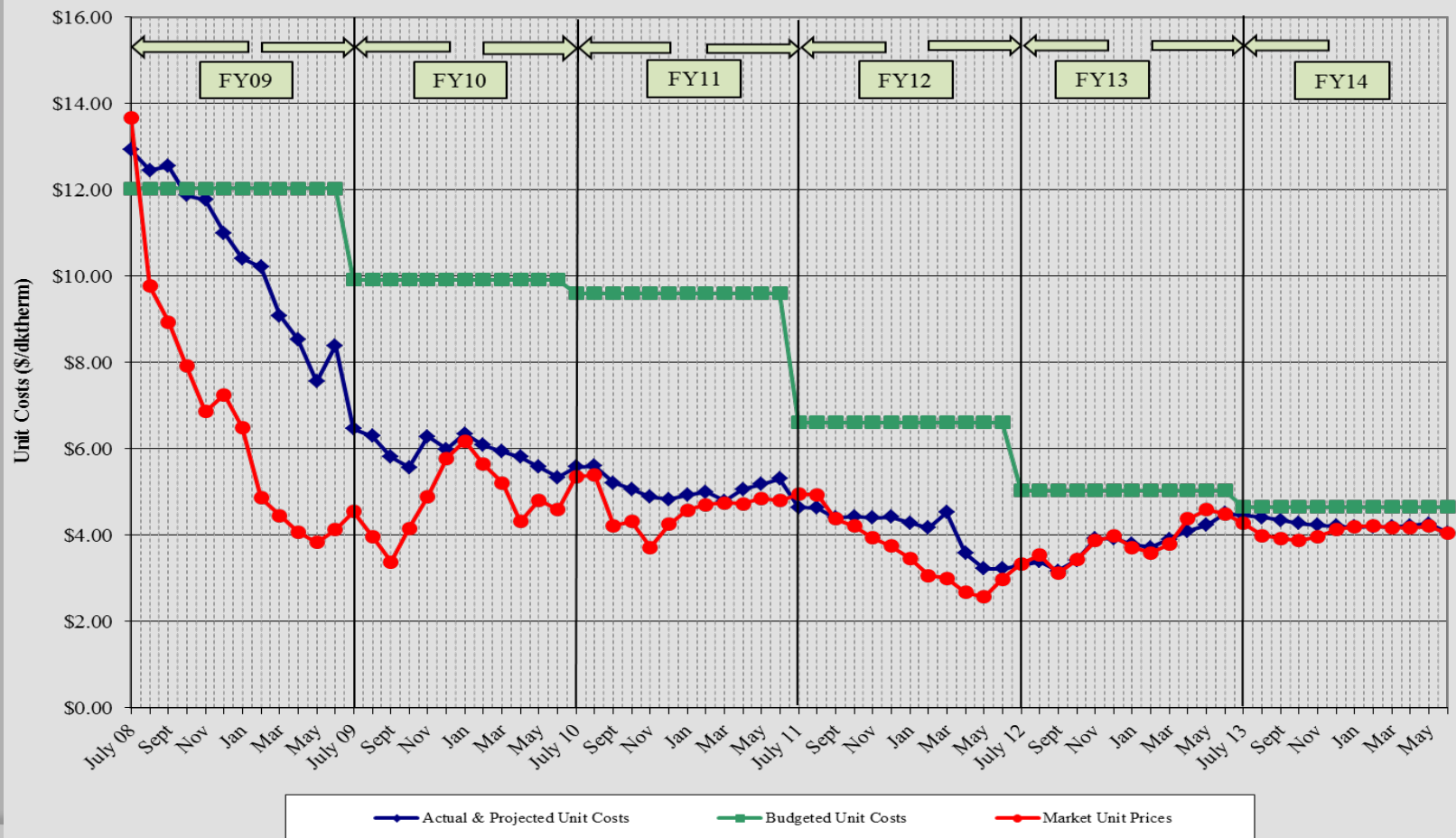
Excludes consultant fees and FEA and budget contingency

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Figure 5A. Actual and Projected Gas Cost Comparison History



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6. FY13 Costs to Date

Item	FY12 Actual	FY13 Budget	FY13 Actual to date	Percent of FY13 Budget
FOC's	\$ 4,303,100	\$ 4,448,321	\$ 4,390,989	98.71%
Pass Throughs				
Non-Energy	\$ 842,241	\$ 1,098,424	\$ 1,003,884	91.39%
Water/Sewer	\$ 433,255	\$ 616,500	\$ 505,509	82.00%
Natural Gas Base	\$ 2,025,943	\$ 2,129,500	\$ 2,129,500	100.00%
Natural Gas Contingency	\$ -	\$ 1,055,600	\$ 382,408	36.23%
Electricity	\$ 4,737,502	\$ 5,673,500	\$ 5,286,363	93.18%
Debt Service	\$ 4,928,191	\$ 4,604,855	\$ 4,209,145	91.41%
Total Expenses	\$ 17,270,232	\$ 19,626,700	\$ 17,907,800	91.24%
Total Revenues	\$ 15,644,921	\$ 17,263,800	\$ 16,731,236	96.92%
Metro Funding Amount	\$ 2,363,000	\$ 2,362,900	\$ 2,362,900	100.00%

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7. FY14 Budget

Item	FY13 Budget	FY14 Budget	Percent Change
FOC's	\$ 4,448,321	\$ 4,583,500	3.04%
Pass Throughs			
Non-Energy	\$ 1,098,424	\$ 1,091,000	-0.68%
Water/Sewer	\$ 616,500	\$ 714,300	15.86%
Natural Gas Base	\$ 2,129,500	\$ 2,512,943	18.01%
Natural Gas Contingency	\$ 1,055,600	\$ 643,157	-39.07%
Electricity	\$ 5,673,500	\$ 6,585,000	16.07%
Debt Service	\$ 4,604,855	\$ 5,518,700	19.85%
Total Expenses	\$ 19,626,700	\$ 21,648,600	10.30%
Total Revenues	\$ 17,263,800	\$ 19,690,300	14.06%
Metro Funding Amount	\$ 2,362,900	\$ 1,958,300	-17.12%



8. Capital Expenditure Update

	Spent to End of FY12	FY13 Spending	Balance to Date (07/01/13)
R&I Projects	\$1,543,008	\$638,083	\$51,893
2005B Bond	\$8,186,500	\$0	\$0
2010 Bond	\$1,876,222	\$13,003	\$521,600
MCCC Fund	\$5,264,022	\$574,389	\$2,674,267
Total	\$16,869,752	\$1,226,195	\$3,247,760



Capital Projects Review

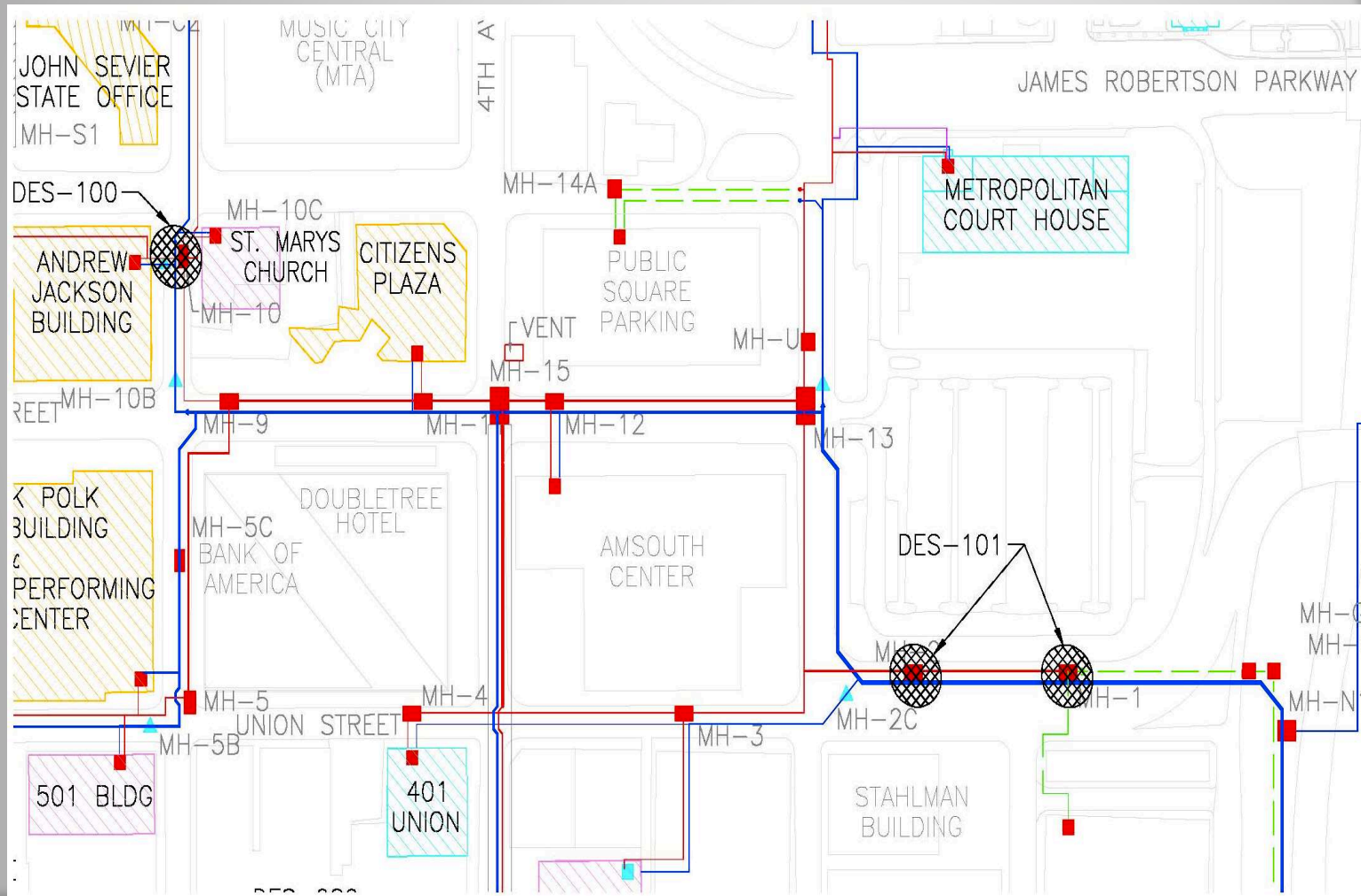
Active Capital Projects

- DES 061: MH & Tunnel Steel Corrosion Repair & Prevention – ongoing
- DES 091: TOU and Thermal Storage – developing TOU invoicing changes
- DES 098: Service Connection to Nashville Hyatt Place – complete; coordinating project close-out and start-up with building contractor
- DES 100: MH-10 Sump Pump and Roof Replacement – in design
- DES 101: MH-1 Abandonment – in close-out

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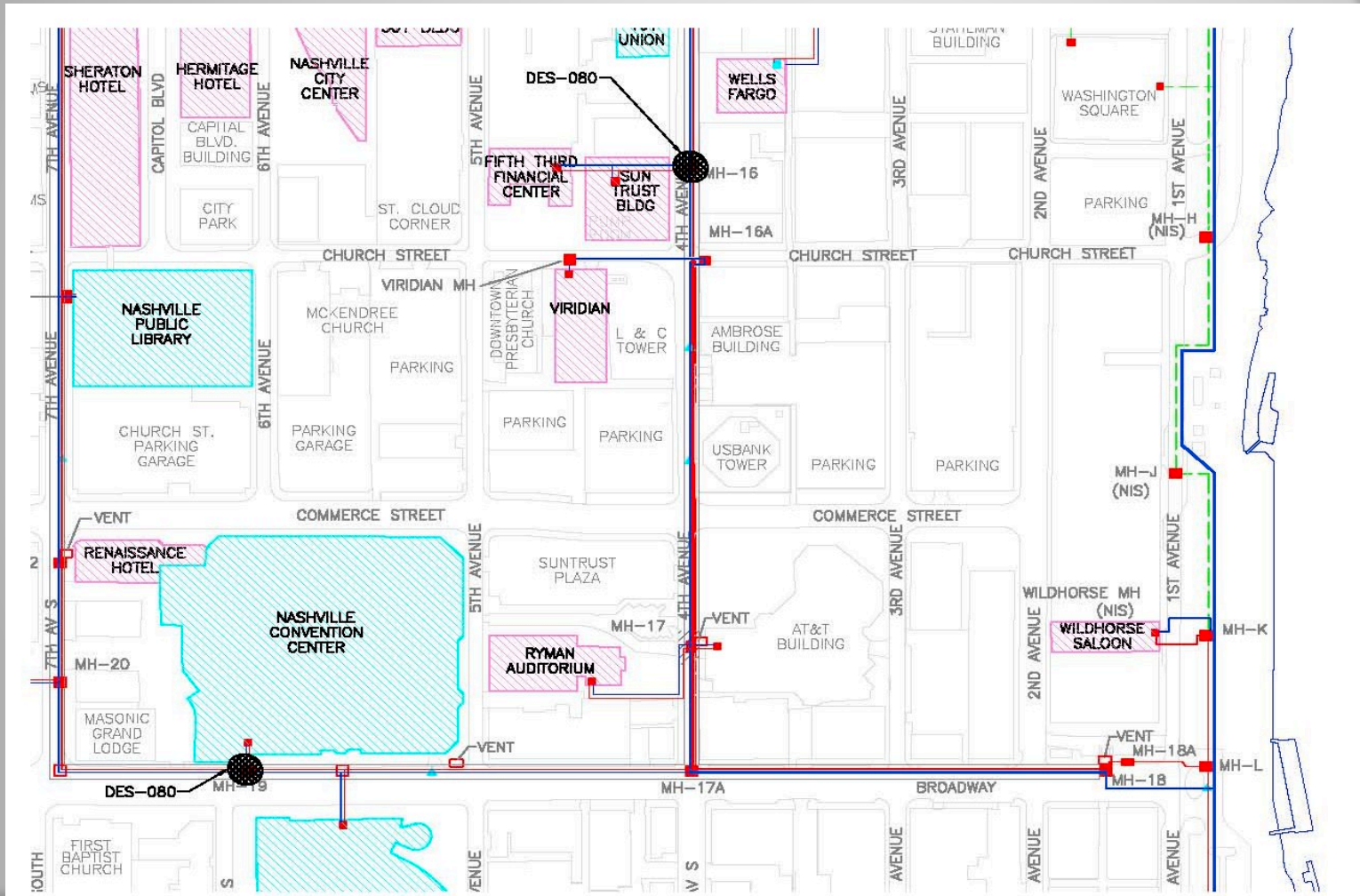
Active Capital Projects



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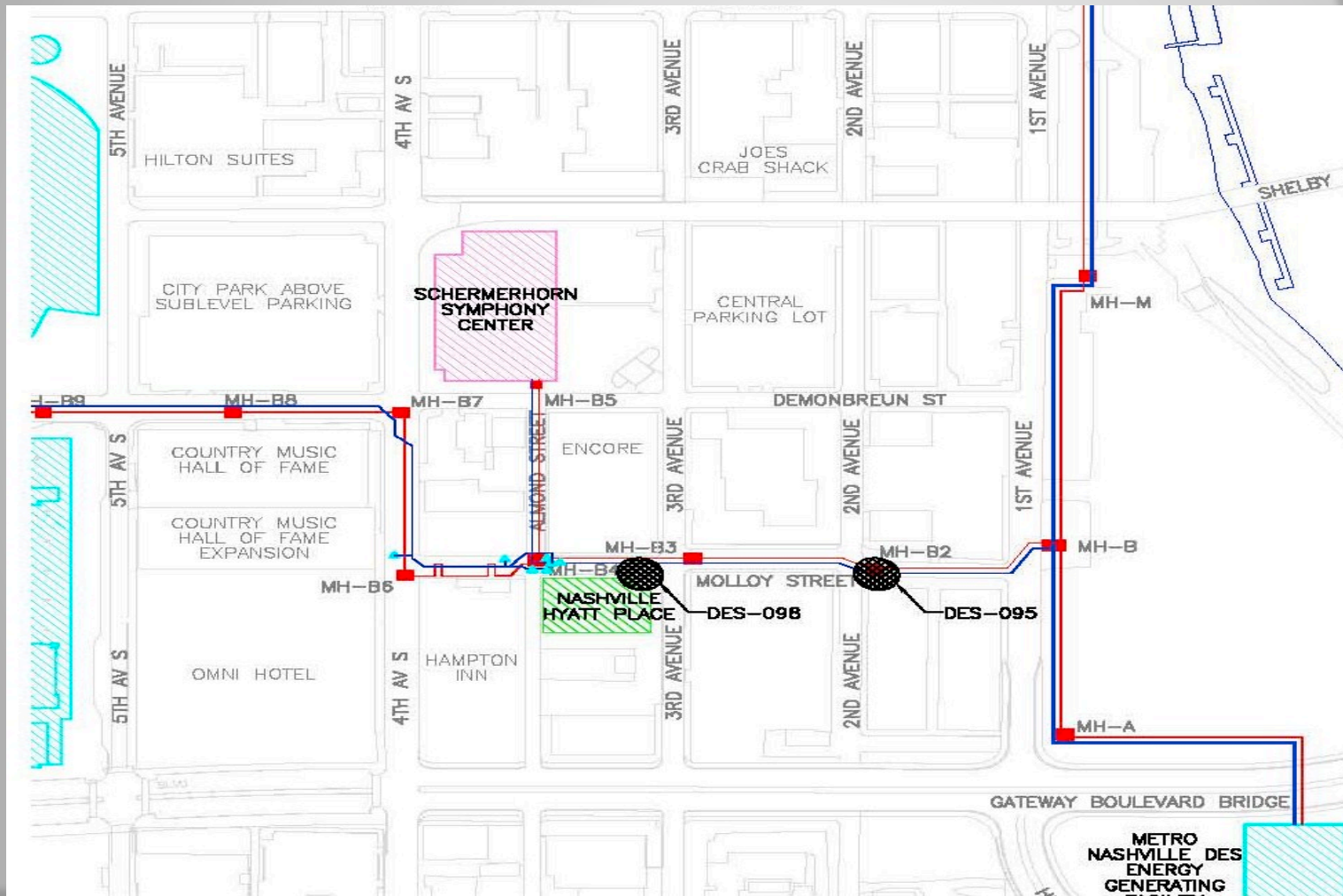
Active Capital Projects



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Active Capital Projects





Capital Projects Review

Capital Projects in Close-out

- DES 080: Misc. MH & Tunnel Safety Repairs – in closeout
- DES 095: MH-B2 Water Infiltration – in closeout
- DES 101: MH-1 Abandonment – in closeout



9. *Other Board Member Items*

10. *Adjourn*

- *Advisory Board Meeting Schedule*
- FY14 – 1st Quarter Meeting – November 21, 2013
- FY14 – 2nd Quarter Meeting – February 20, 2014
- FY14 – 3rd Quarter Meeting – May 15, 2014
- FY14 – 4th Quarter Meeting – August 21, 2014