

Metro Nashville
DISTRICT ENERGY SYSTEM



DES Advisory Board Meeting
Third Quarter FY11
May 19, 2011



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. FY11 Costs to Date
7. FY12 Budget Status Report
8. Capital Projects Review & Status Report Update
9. MCCC Expansion Update
10. Other Board Member Items
11. Adjourn



1. Call to Order

*2. Review and Approval of
Previous Meeting Minutes*



3. Customer Sales

- Table 3: Customer Cost Comparison
- Figure 3A: Historic Sales
- Figure 3B: Historic Degree Days

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

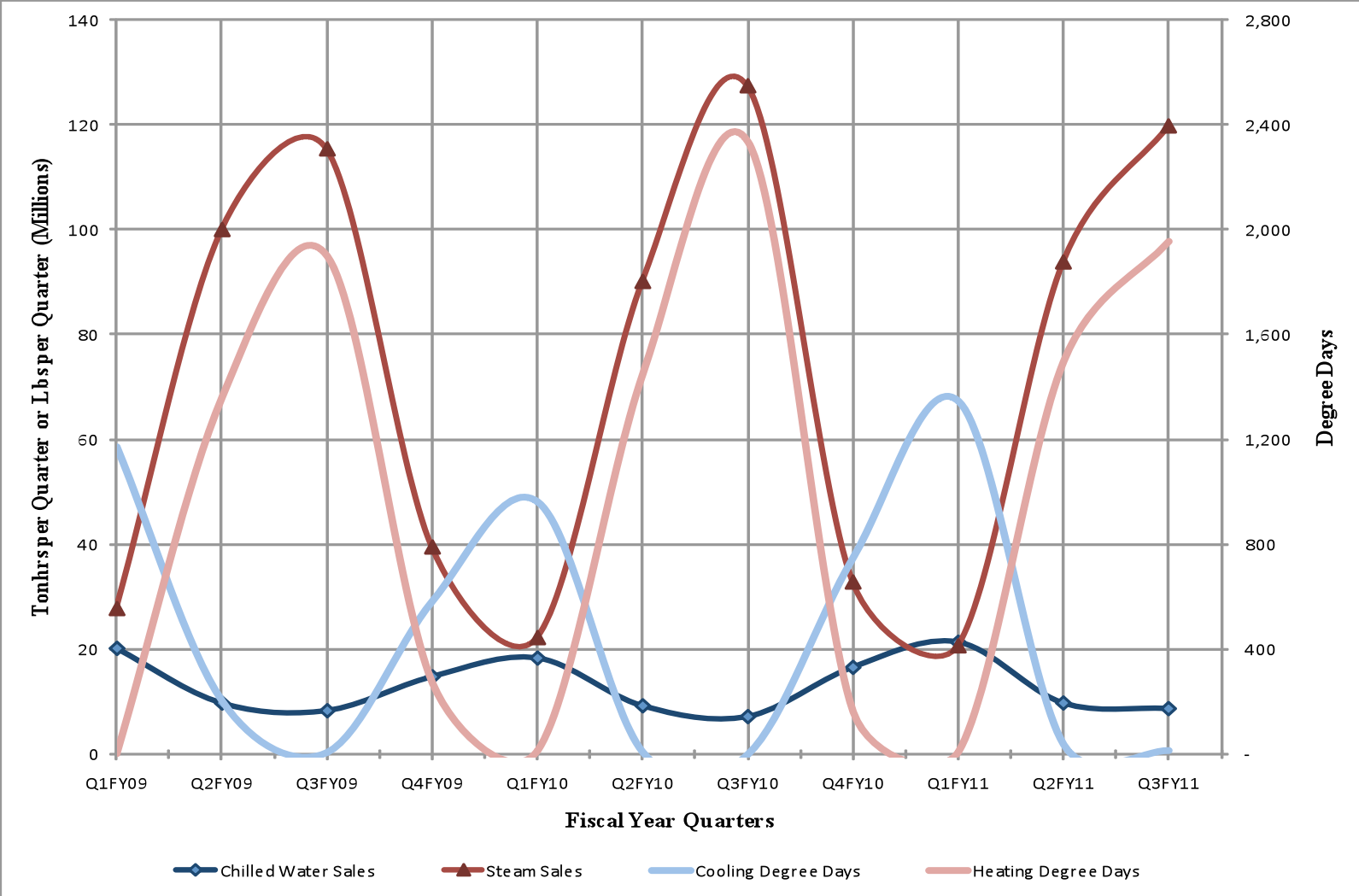
		Steam - Rolling 12 Month			Chilled Water - Rolling 12 Month		
		Apr 2009 - Mar 2010	Apr 2010 - Mar 2011	% Diff.	Apr 2009 - Mar 2010	Apr 2010 - Mar 2011	% Diff.
Private	Cost	\$ 1,782,719	\$ 1,650,087	-7.44%	\$ 3,466,560	\$ 3,759,414	8.45%
	Usage (lbs or tonhrs)	83,149,150	72,388,520	-12.94%	16,710,604	19,880,850	18.97%
	Unit Cost	\$ 21.44	\$ 22.79	6.3%	\$ 0.207	\$ 0.189	-8.8%
State	Cost	\$ 2,348,551	\$ 2,100,852	-10.55%	\$ 3,211,992	\$ 3,331,546	3.72%
	Usage (lbs or tonhrs)	106,494,848	88,421,744	-16.97%	16,340,229	17,539,204	7.34%
	Unit Cost	\$ 22.05	\$ 23.76	7.7%	\$ 0.197	\$ 0.190	-3.4%
Metro	Cost	\$ 2,012,902	\$ 1,892,433	-5.98%	\$ 2,914,929	\$ 3,128,791	7.34%
	Usage (lbs or tonhrs)	89,482,318	82,996,343	-7.25%	16,417,940	18,961,342	15.49%
	Unit Cost	\$ 22.49	\$ 22.80	1.4%	\$ 0.178	\$ 0.165	-7.1%
Aggregate	Cost	\$ 6,144,172	\$ 5,643,373	-8.15%	\$ 9,593,481	\$ 10,219,751	6.53%
	Usage (lbs or tonhrs)	279,126,316	243,806,607	-12.65%	49,468,773	56,381,396	13.97%
	Unit Cost	\$ 22.01	\$ 23.15	5.2%	\$ 0.194	\$ 0.181	-6.53%

*FY09 MFA = \$3,217,986; FY10 MFA = \$2,661,553 post-True-up; MFA not included in values shown

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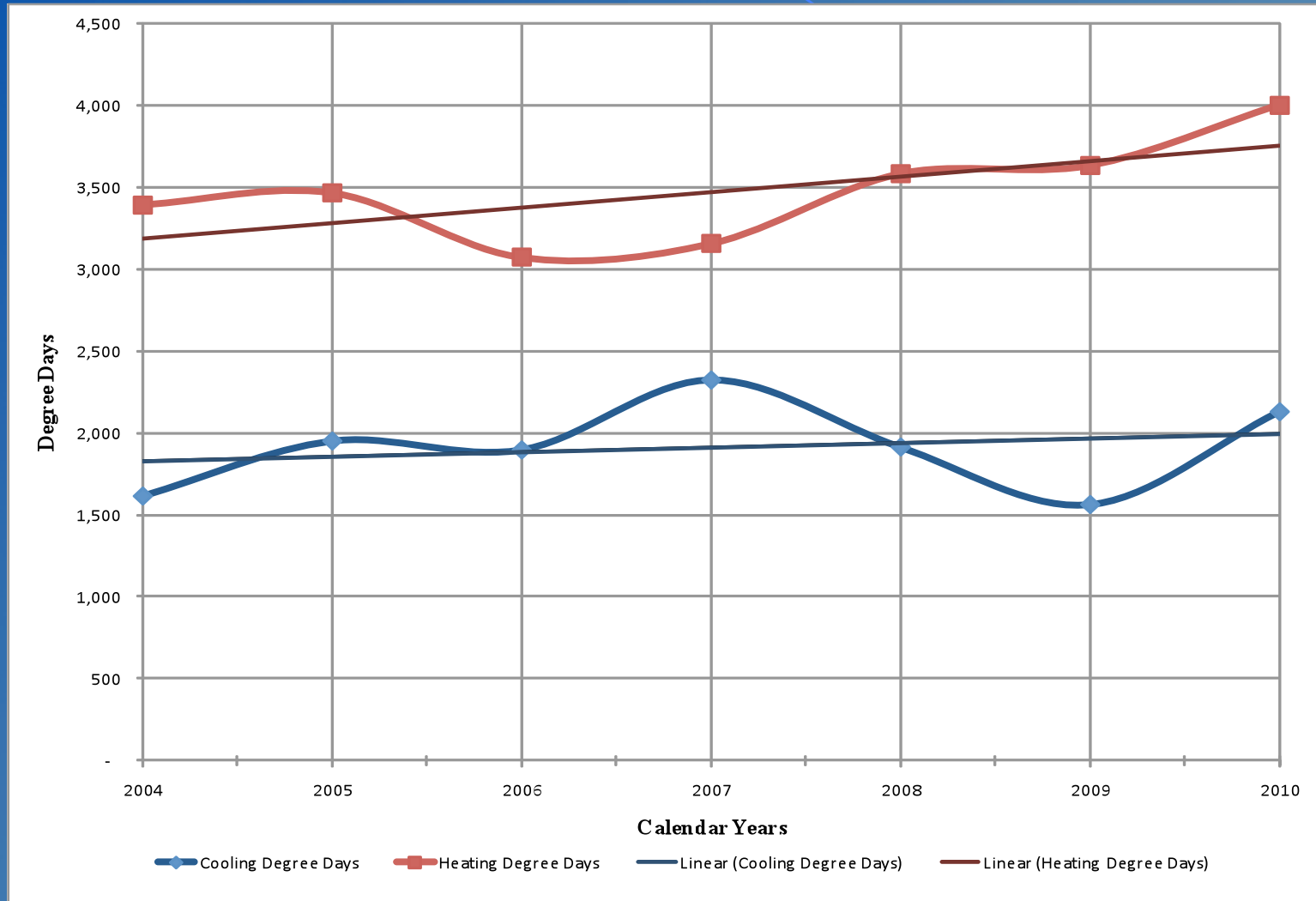
Figure 3A: Historic Sales



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Figure 3B: Historic Degree Days





4. Review of DES Contractor Performance

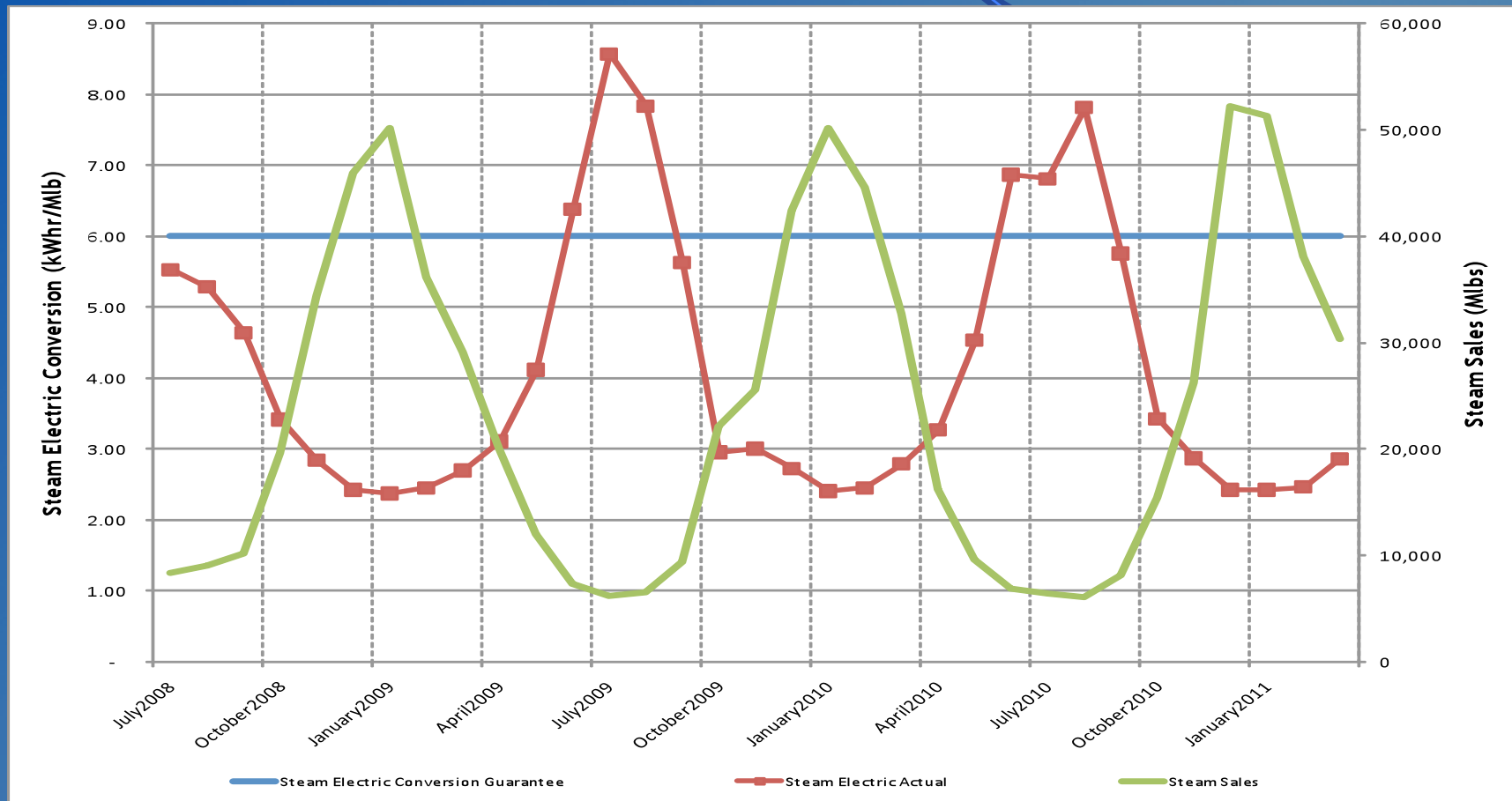
Contractor (CEPS) is in compliance with their contractual obligations for FY11.

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

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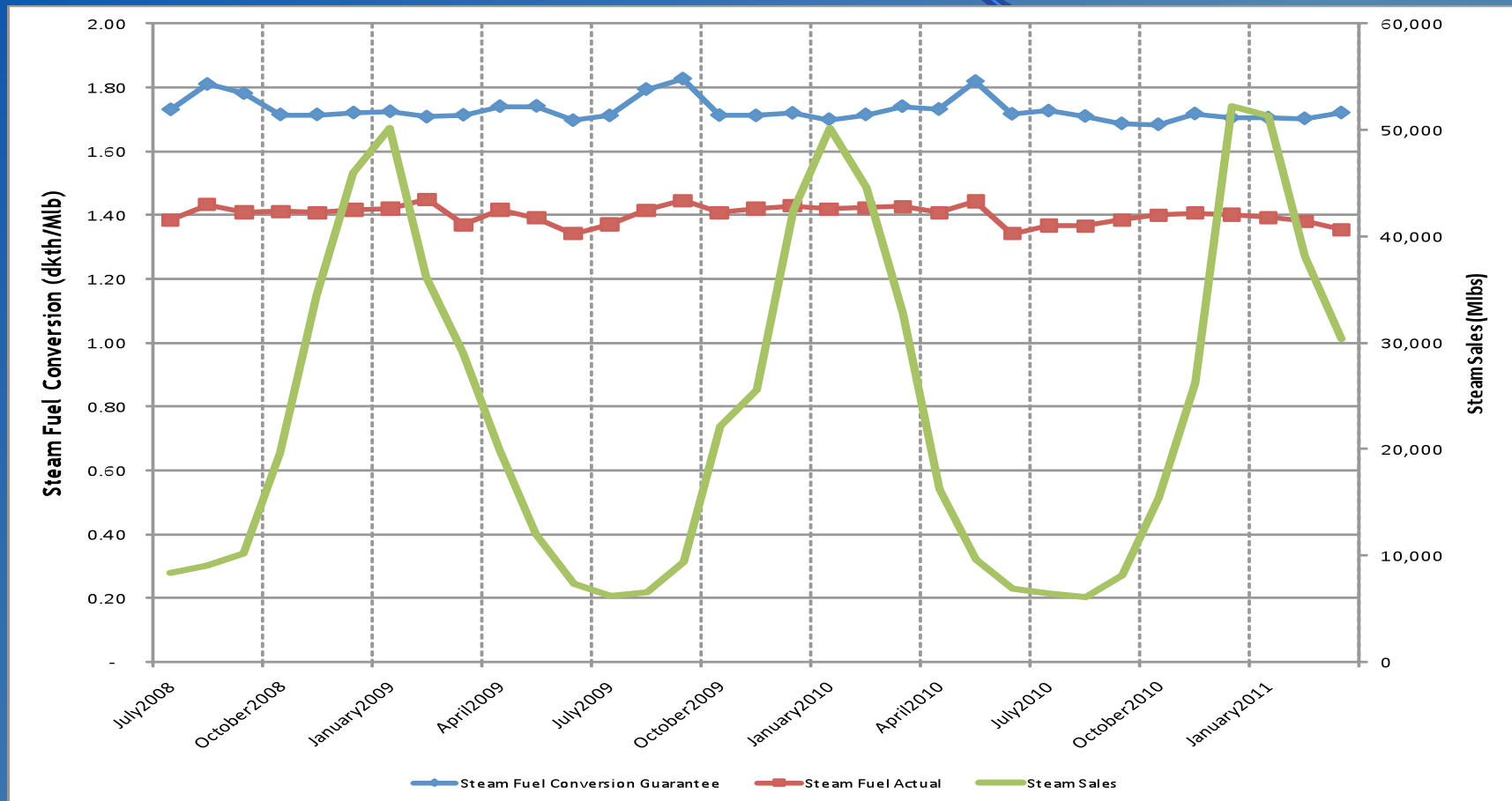
Performance Measurement FY11: Steam Electric Conversion



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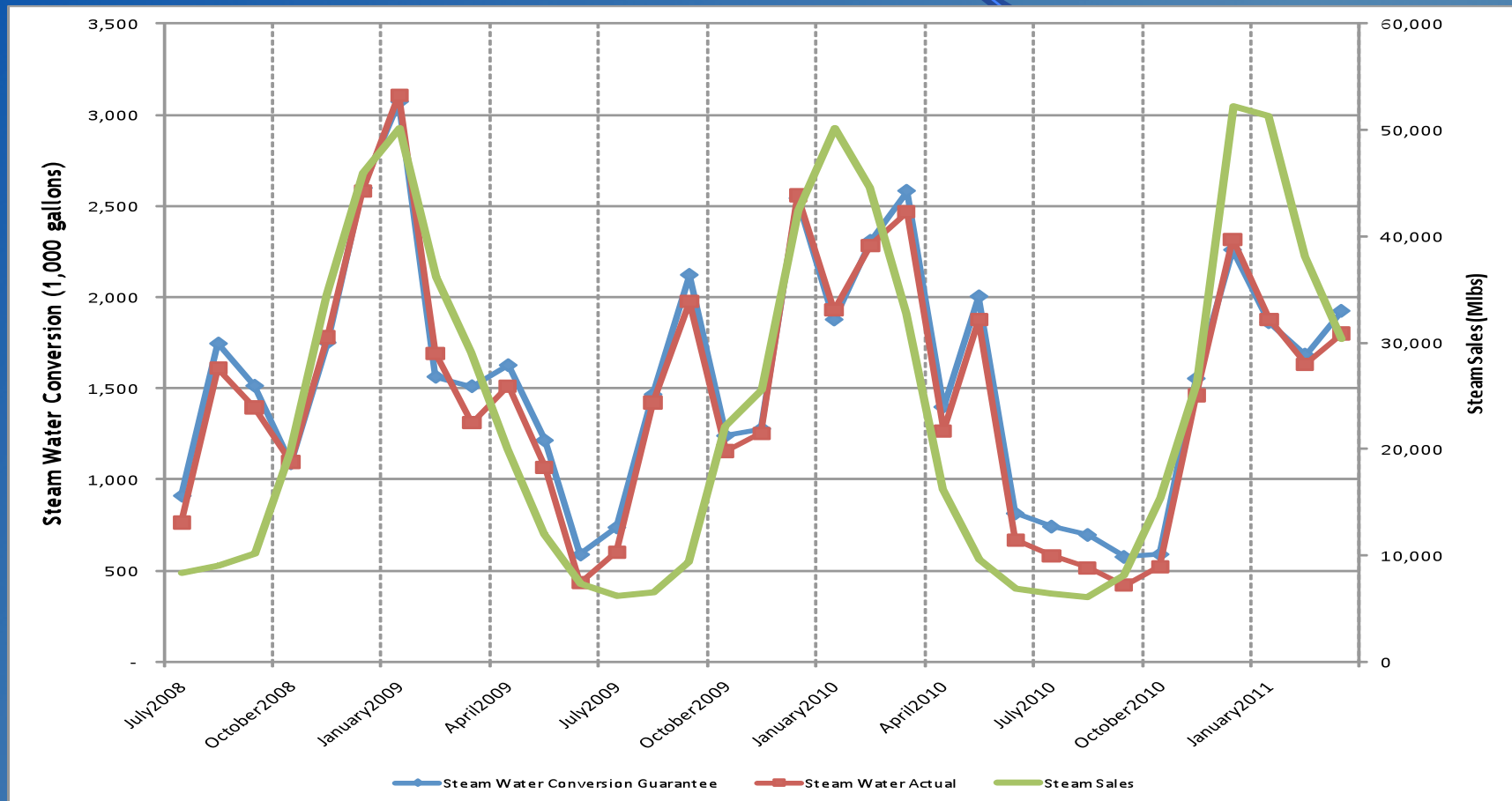
Performance Measurement FY11: Steam Plant Efficiency



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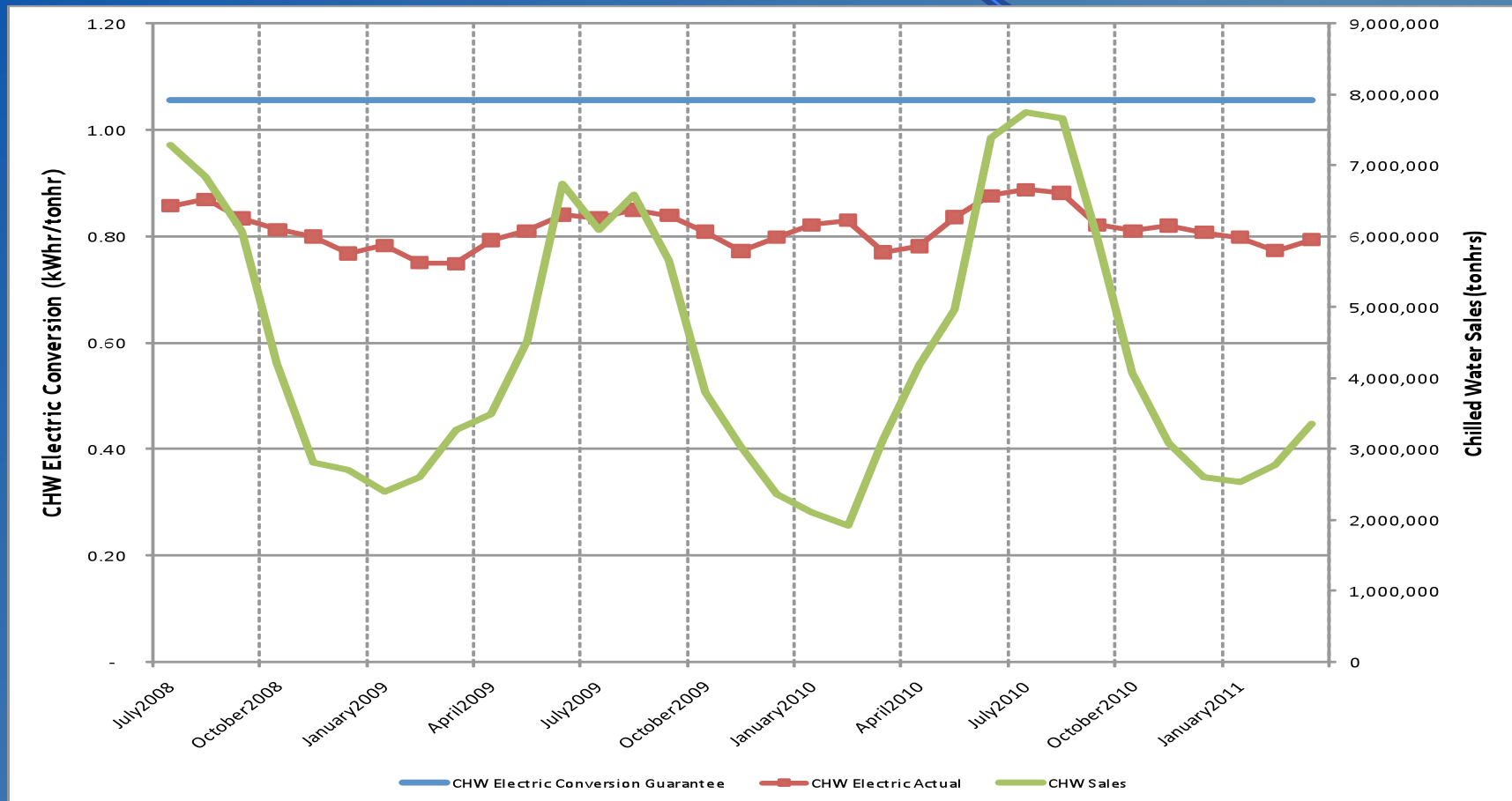
Performance Measurement FY11: Steam Water Conversion



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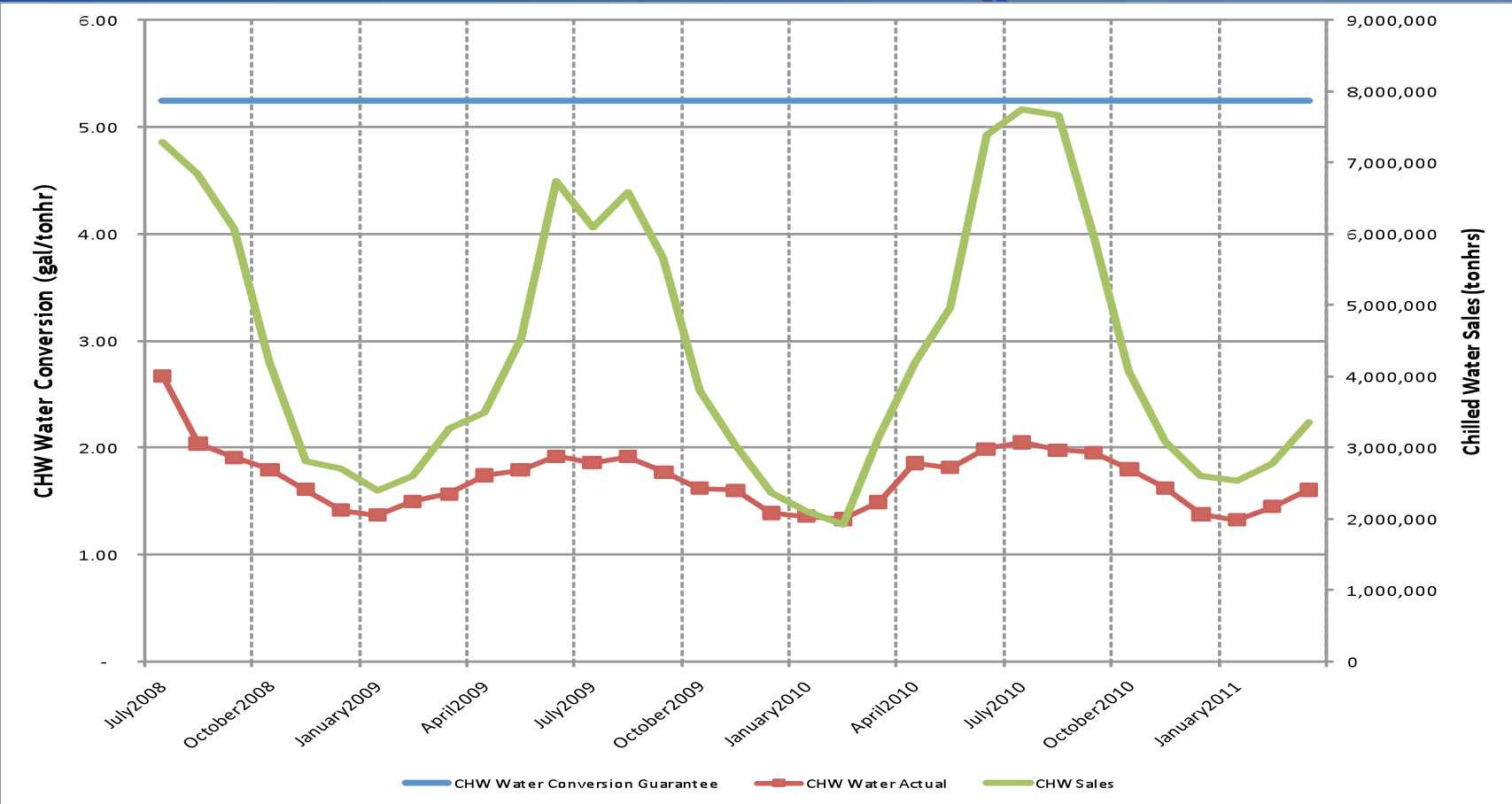
Performance Measurement FY11: CHW Electric Conversion



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Performance Measurement FY11: 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 (City Water Leak) ●
 - Corrosion of Structural Metal Components ●
- Safety Items ●



5. Natural Gas Purchasing

- Natural Gas Purchasing Review
 - Table 5: FY11 Gas Spending & Budget Comparison
 - Figure 5: Actual and Projected Gas Cost Comparison for FY11



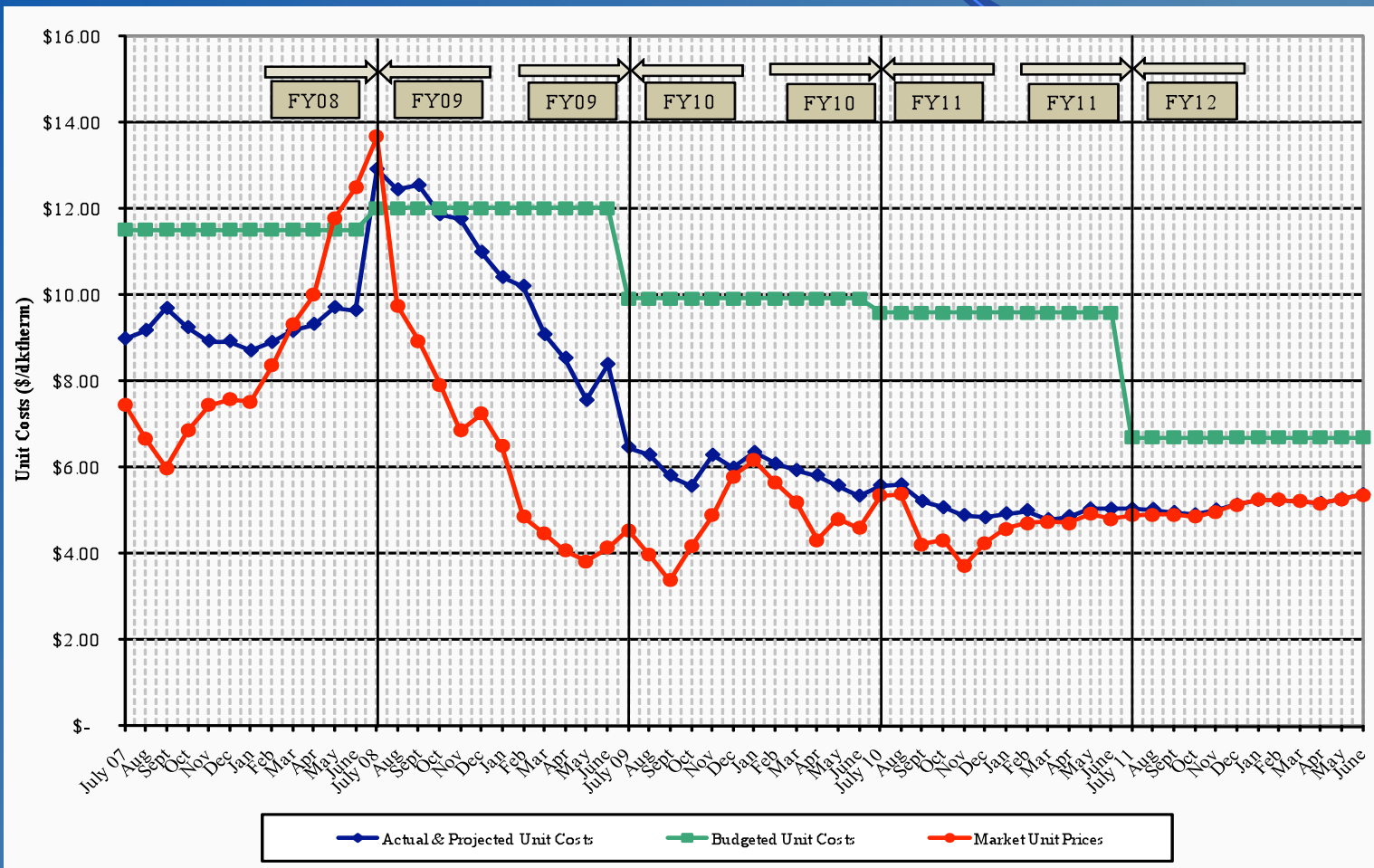
Table 5: FY11 Gas Spending & Budget Comparison

		Actual FY11 To date (Mar 31)	Budget FY11
Steam Sendout (Mlbs)		275,565	294,535
Fuel Use (Dth) (includes propane)	●	382,211	415,000
Plant Eff (Dth/Mlb)	●	1.387	1.409
Total Gas Cost (includes propane)	●	\$2,074,856	\$3,887,305
Unit Cost of Fuel (\$/Dth)	●	\$5.429	\$9.367

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Figure 5. Actual and Projected Gas Cost Comparison History





6. FY11 Costs to Date

Item	FY11 Budget	FY11 Actual to 03/31/11	Percent of Budget
FOC's	\$ 4,151,100	\$ 3,029,951	72.99%
Pass Throughs			
Non-Energy	\$ 966,600	\$ 803,366	83.11%
Water/Sewer	\$ 574,000	\$ 288,022	50.18%
Natural Gas/Propane	\$ 4,445,500	\$ 2,074,856	46.67%
Electricity	\$ 4,949,700	\$ 3,078,126	62.19%
Debt Service	\$ 5,215,900	\$ 3,609,035	69.19%
Total Expenses	\$ 20,302,800	\$ 12,883,356	63.46%
Total Revenues	\$ 17,858,700	\$ 11,629,418	65.12%
Metro Funding Amount	\$ 2,444,100	\$ 1,253,939	51.30%



7. FY12 Budget Status Report

Item	FY10 Actual	FY11 Budget	FY12 Budget	Percent Change FY12 to FY11 Budget
FOC's	\$ 4,151,100	\$ 4,151,100	\$ 4,303,100	3.53%
Pass Throughs				
Non-Energy	\$ 798,699	\$ 966,600	\$ 1,031,400	6.28%
Water/Sewer	\$ 414,307	\$ 574,000	\$ 597,700	3.97%
Natural Gas	\$ 3,152,310	\$ 4,445,500	\$ 3,939,300	-12.85%
Electricity	\$ 4,041,188	\$ 4,949,700	\$ 5,192,900	4.68%
Debt Service	\$ 5,326,665	\$ 5,215,900	\$ 5,703,700	8.55%
Total Expenses	\$ 17,884,269	\$ 20,302,800	\$ 20,768,100	2.24%
Total Revenues	\$ 15,222,716	\$ 17,858,700	\$ 18,405,100	2.97%
Metro Funding Amount	\$ 2,661,552	\$ 2,444,100	\$ 2,363,000	-3.43%



8. Capital Expenditure Update

	Spent to End of FY10	FY11 Spending	Balance to Date (04/14/11)
R&I Projects	\$976,742	\$77,979	\$600,770
2005B Bond	\$8,054,218	\$67,349	\$43,119
2010 Bond	\$412,384	\$757,385	\$1,240,231
MCCC Fund	\$102,062	\$1,738,651	\$6,659,287
Total	\$9,545,406	\$2,641,364	\$8,543,407



Capital Projects Review

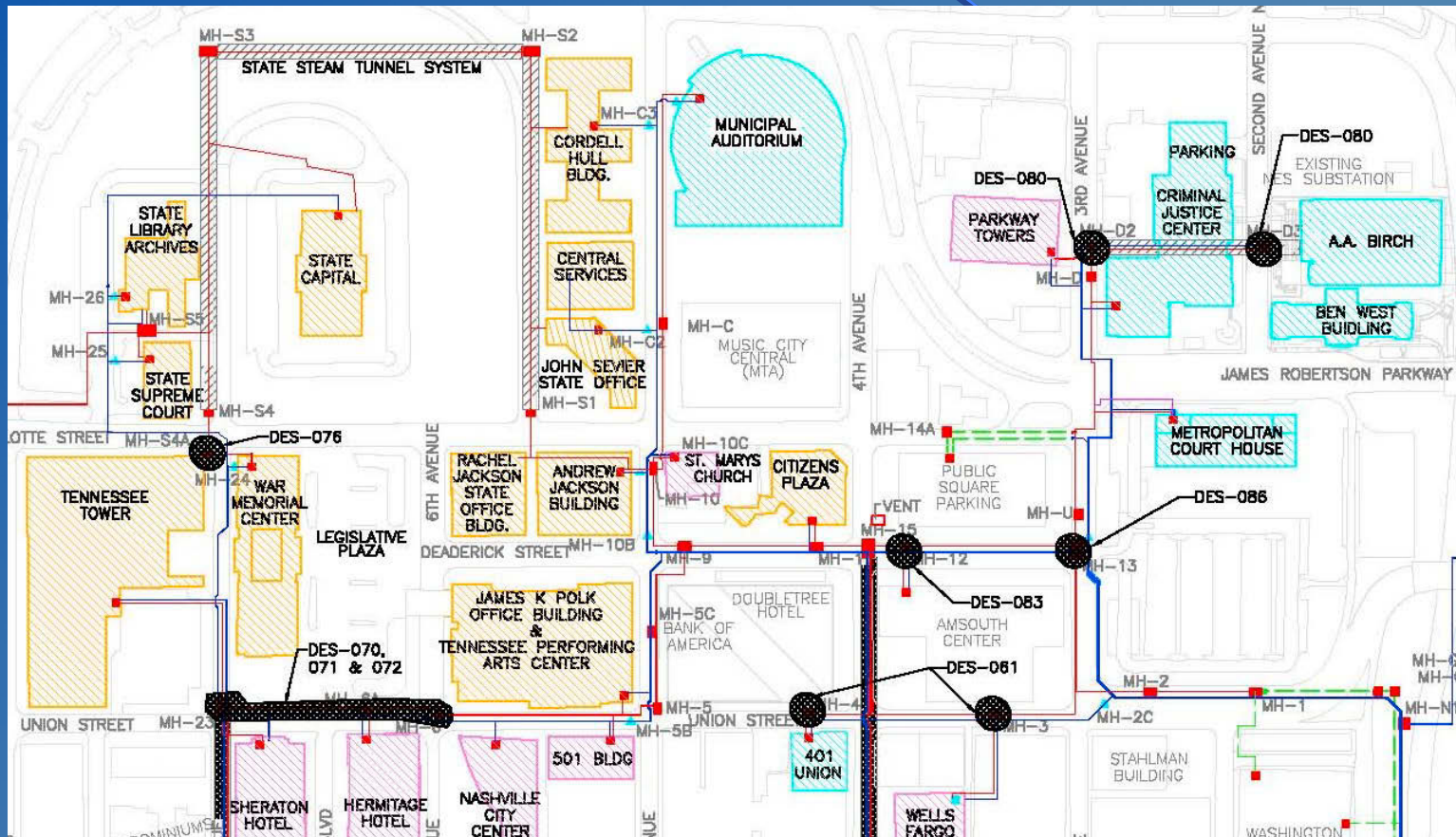
Active Capital Projects

- DES 060: MH Insulation - in construction/ongoing
- DES 061: Manhole & Tunnel Steel Corrosion Repair & Prevention – in construction/ongoing
- DES 067: Tunnel Rock Rehabilitation.: Broadway, 7th & 4th Ave. –substantially complete in 3rd Qtr FY11
- DES 076: MH-S4A State Manhole Rebuild – on hold; awaiting completion of the State alternate fiber optic duct
- DES 077: Expansion of Service to the Music City CC - in construction
- DES 080: Misc. Manhole & Tunnel Safety Repairs – in design
- DES 081: Flood Related Repairs – in construction (tunnel electrical)
- DES 083: Manhole 13 Leak Repair – in construction
- DES 086: Manhole 12 Roof Replacement – awaiting construction

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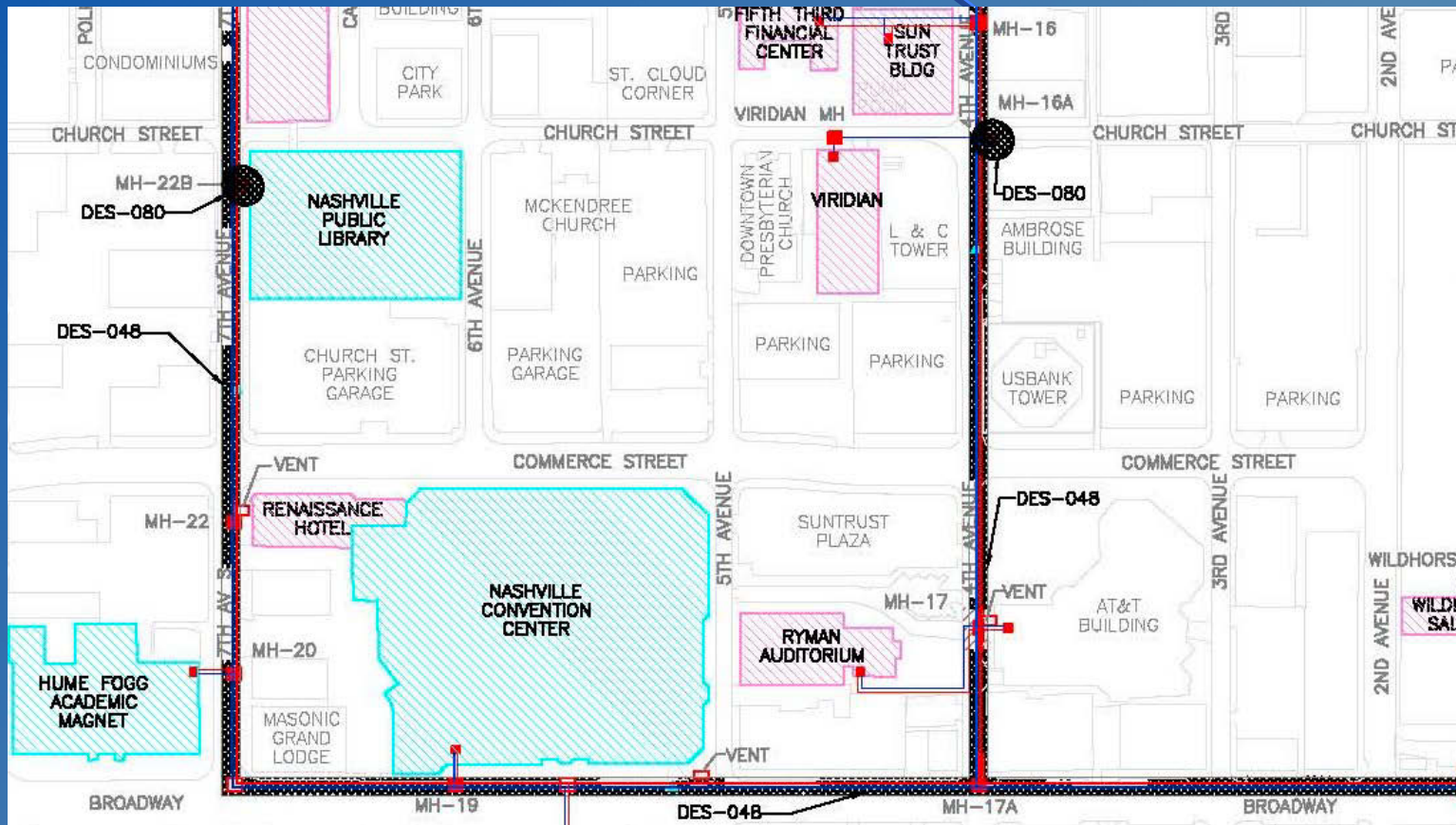
Active Capital Projects



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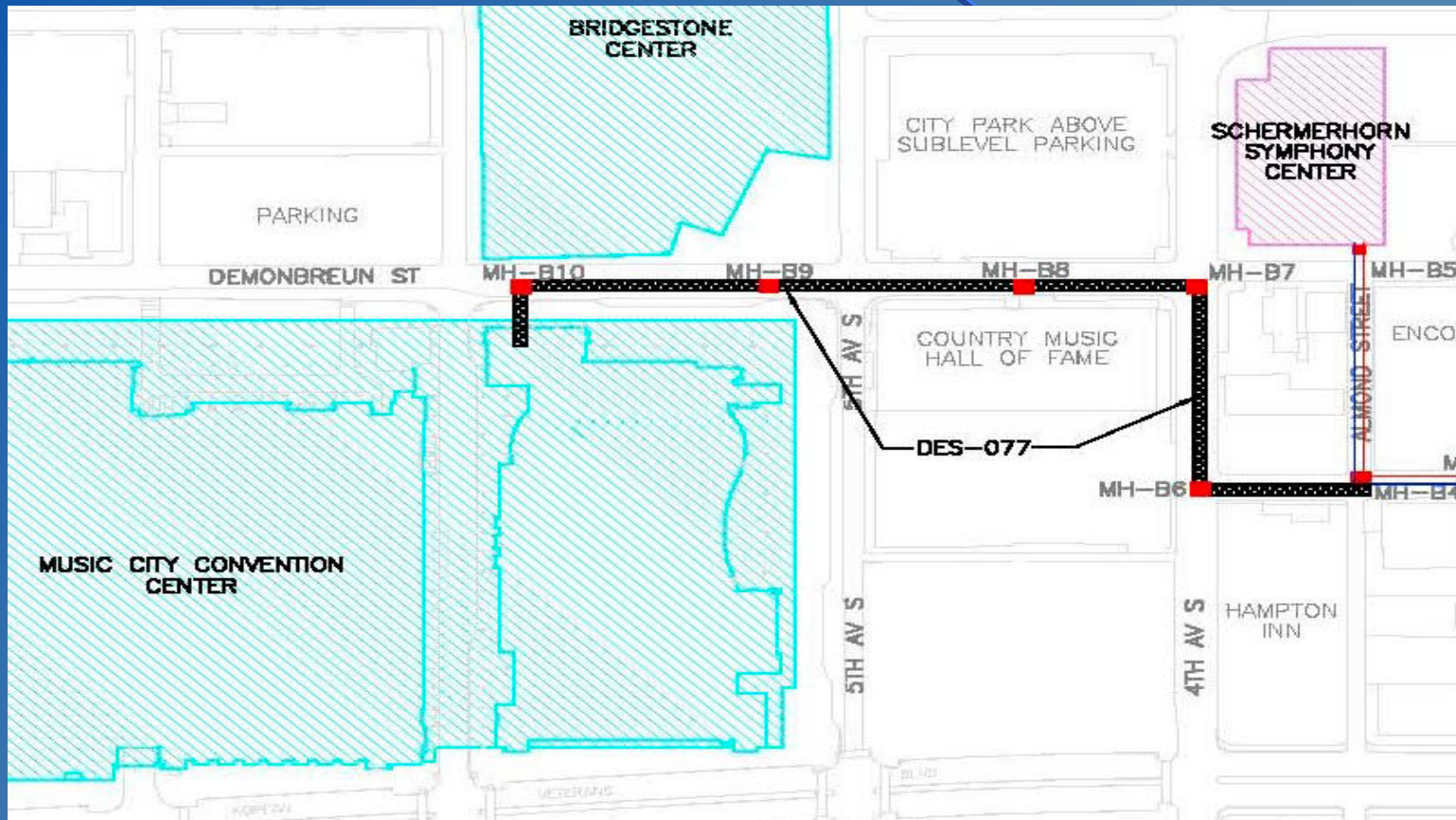
Active Capital Projects



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Active Capital Projects





Capital Projects Review

Capital Projects in Close-out

- DES 059: CJC Condensate Service Line Repair – closed
- DES 063: Manhole A, B & M Sump Pump Installation – closed
- DES 066: 1st Avenue Manhole & Steam Line Removal from Service - closed
- DES 073: MH-18 Platform Modification – Sump Pump Controls construction ongoing; anticipated completion during 4th Qtr FY11
- DES 082: Andrew Jackson Steam Isolation Valve Replacement - closed



Capital Projects Review

FY10-11 Proposed Projects

- DES 048: Tunnel Lighting Replacement Phase III
- DES 070: MH 6 to 23 Condensate Line Replacement
- DES 071: Hermitage Hotel Service Modifications
- DES 072: Sheraton Hotel Steam and Condensate Replacement



9. Music City Convention Center Expansion Update

- Construction Began October 2010
- All New Vaults Set
- Direct-Buried Piping Almost Complete
- Tie-in to Existing EDS at End of May 2011
- Anticipated to Require Steam Service November 2011
- Anticipated to Require CHW Service April 2012



Intersection of 5th Ave S and Demonbreun



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Trench West of 5th Ave S



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Trench in Front of CMHF



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MH-B8



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4th Ave S and Demonbreun



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Final CHW Connection on Demonbreun



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Trench Along Malloy at MH-B4





10. Other Board Member Items

11. Adjourn

Advisory Board Meeting Schedule

- FY11 – 4th Quarter Meeting – August 17, 2011
- FY12 – 1st Quarter Meeting – November 16, 2011
- FY12 – 2nd Quarter Meeting – February 16, 2012
- FY12 – 3rd Quarter Meeting – May 17, 2012