

Metro Nashville
DISTRICT ENERGY SYSTEM



DES Advisory Board Meeting
Second Quarter FY12
February 16, 2012



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. FY12 Costs to Date
7. Capital Projects Review & Status Report Update
8. Thermal Storage & Time of Use Rates
9. MCCC Expansion Update
10. Potential New Customers
11. Other Board Member Items
12. Adjourn



1. Call to Order

*2. Review and Approval of
Previous Meeting Minutes*



3. Customer Sales

- Table 3: Customer Cost Comparison
- Figure 3A: CHW Sales & Energy Comparison
- Figure 3B: Steam Sales & Energy Comparison

Metro Nashville

DISTRICT ENERGY SYSTEM



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

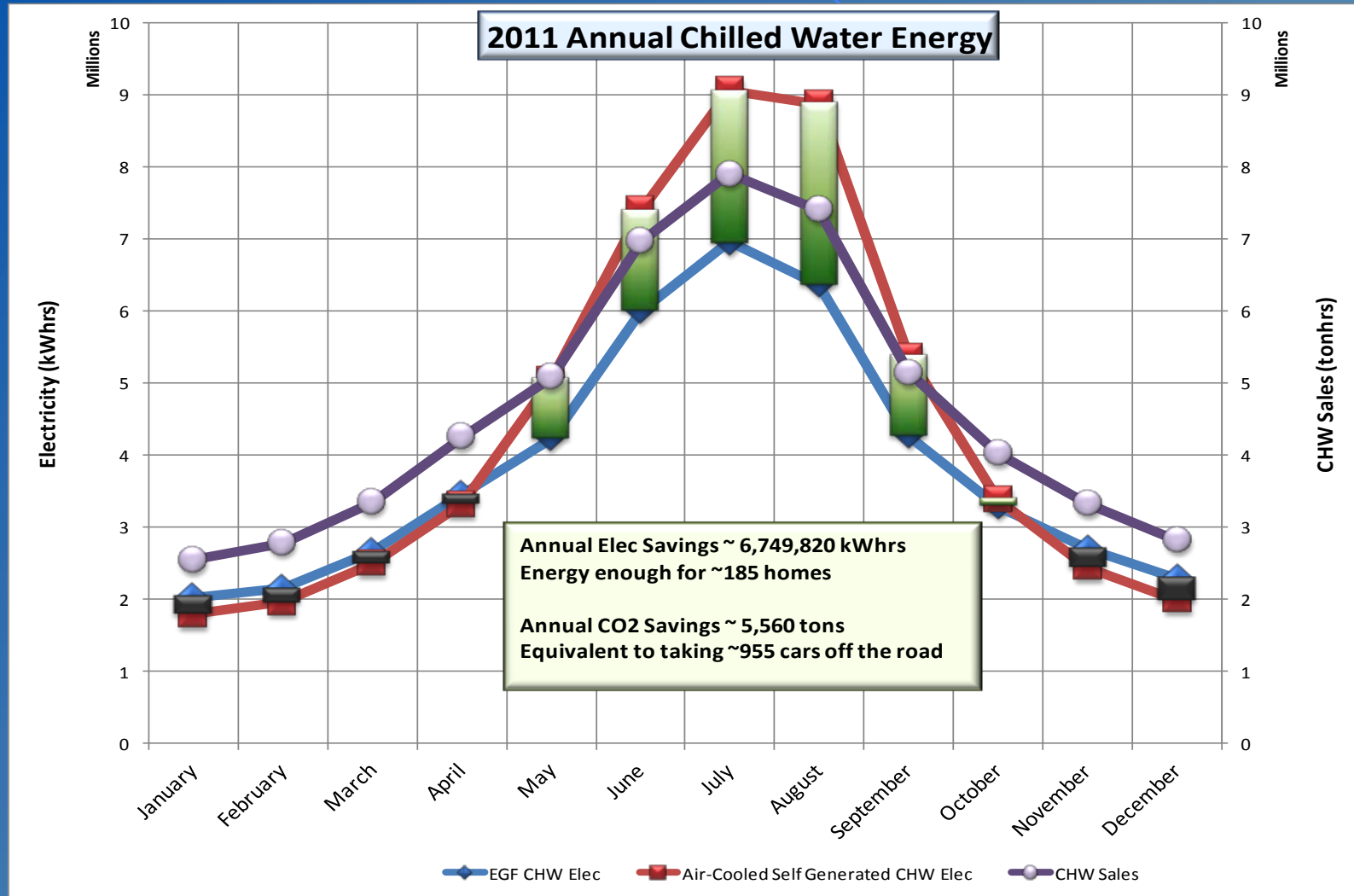
		Steam - Rolling 12 Month			Chilled Water - Rolling 12 Month		
		Jan 2010 - Dec 2010	Jan 2011 - Dec 2011	% Diff.	Jan 2010 - Dec 2010	Jan 2011 - Dec 2011	% Diff.
Private	Cost	\$ 1,695,147	\$ 1,513,198	-10.73%	\$ 3,157,321	\$ 3,328,840	5.43%
	Usage (lbs or tonhrs)	72,933,828	85,554,418	17.30%	16,833,341	17,297,332	2.76%
	Unit Cost	\$ 23.24	\$ 17.69	-23.9%	\$ 0.188	\$ 0.192	2.6%
State	Cost	\$ 2,267,230	\$ 1,978,488	-12.74%	\$ 3,344,044	\$ 3,445,895	3.05%
	Usage (lbs or tonhrs)	93,930,258	99,028,505	5.43%	17,254,239	17,072,222	-1.05%
	Unit Cost	\$ 24.14	\$ 19.98	-17.2%	\$ 0.194	\$ 0.202	4.1%
Metro	Cost	\$ 2,006,354	\$ 1,765,271	-12.02%	\$ 3,117,595	\$ 3,284,490	5.35%
	Usage (lbs or tonhrs)	84,545,163	91,922,769	8.73%	18,348,969	18,951,992	3.29%
	Unit Cost	\$ 23.73	\$ 19.20	-19.1%	\$ 0.170	\$ 0.173	2.0%
Aggregate	Cost	\$ 6,024,641	\$ 5,279,532	-12.37%	\$ 10,191,587	\$ 10,660,119	4.60%
	Usage (lbs or tonhrs)	251,469,481	276,505,692	9.96%	54,849,432	55,618,779	1.40%
	Unit Cost	\$ 23.96	\$ 19.09	-20.3%	\$ 0.186	\$ 0.192	3.15%

*FY09 MFA = \$3,217,986; FY10 MFA = \$2,661,553; FY11 MFA = \$2,444,100; post-True-up; MFA not included in values shown

Metro Nashville DISTRICT ENERGY SYSTEM



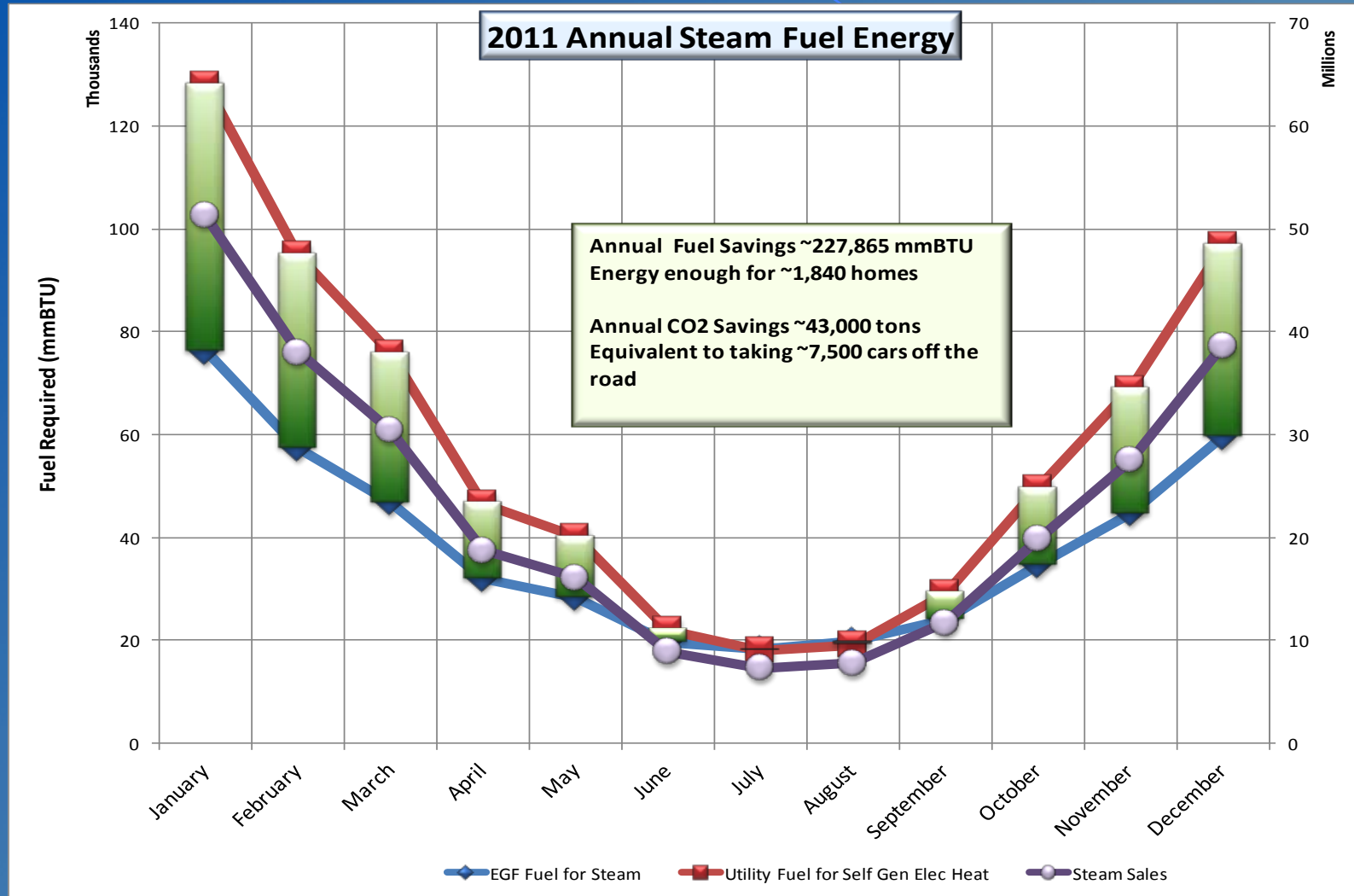
Figure 3A: CHW Sales & Energy Comparison



Metro Nashville DISTRICT ENERGY SYSTEM






Figure 3B: Steam Sales & Energy Comparison





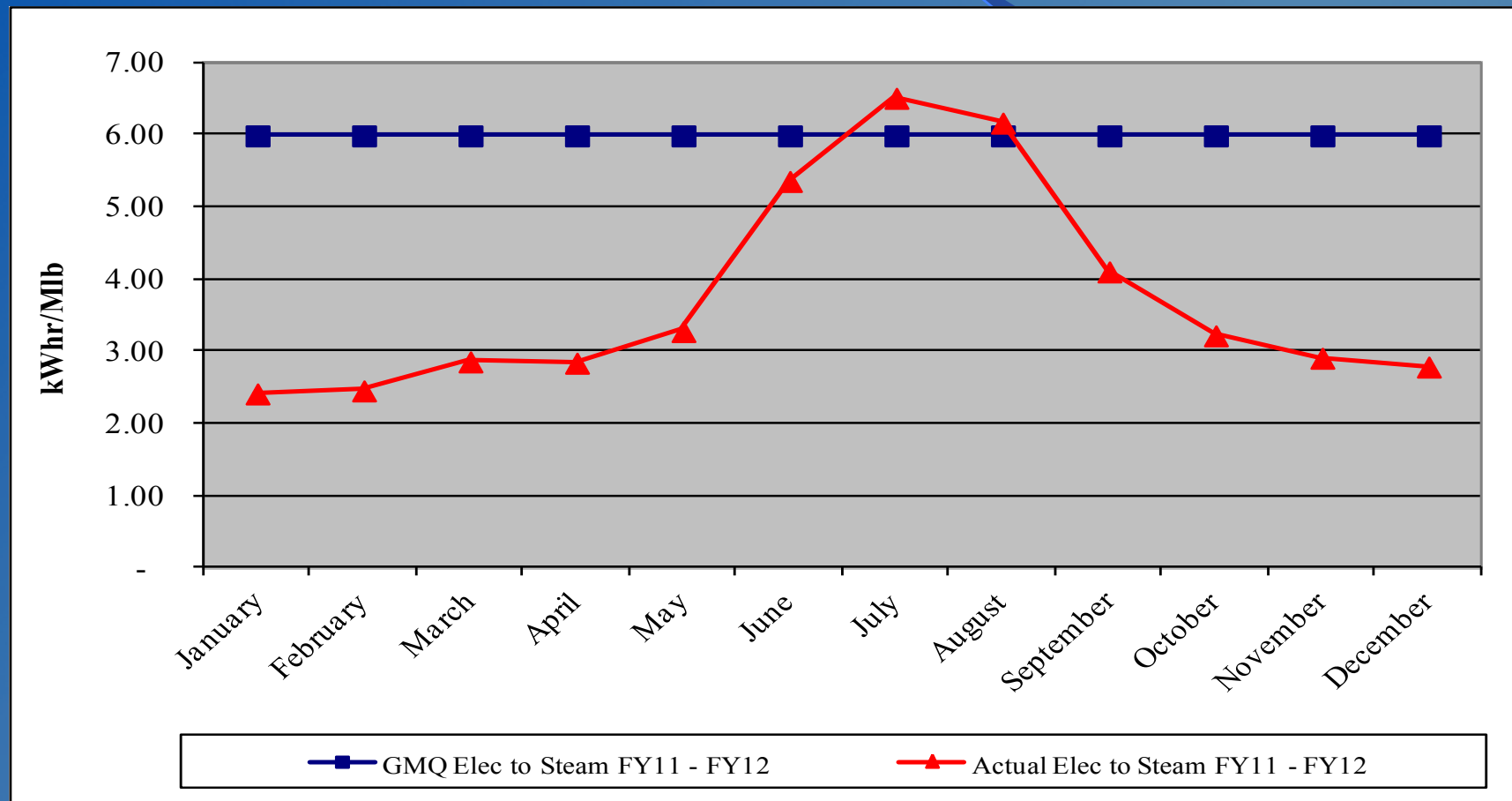
4. Review of DES Contractor Performance

Contractor (CEPS) is in compliance with their contractual obligations for FY12.

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

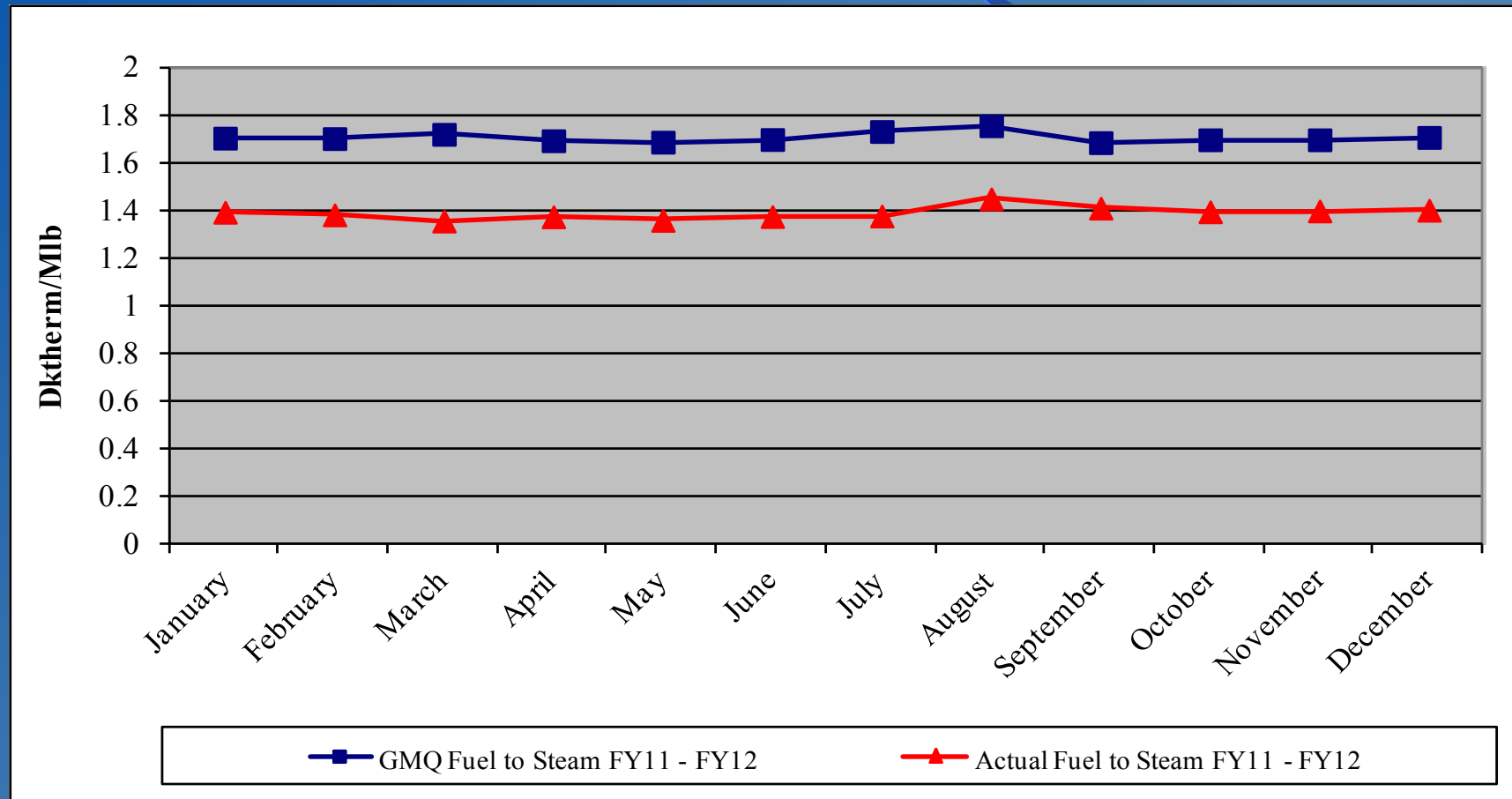


*Performance Measurement FY12: Steam
Electric Conversion*



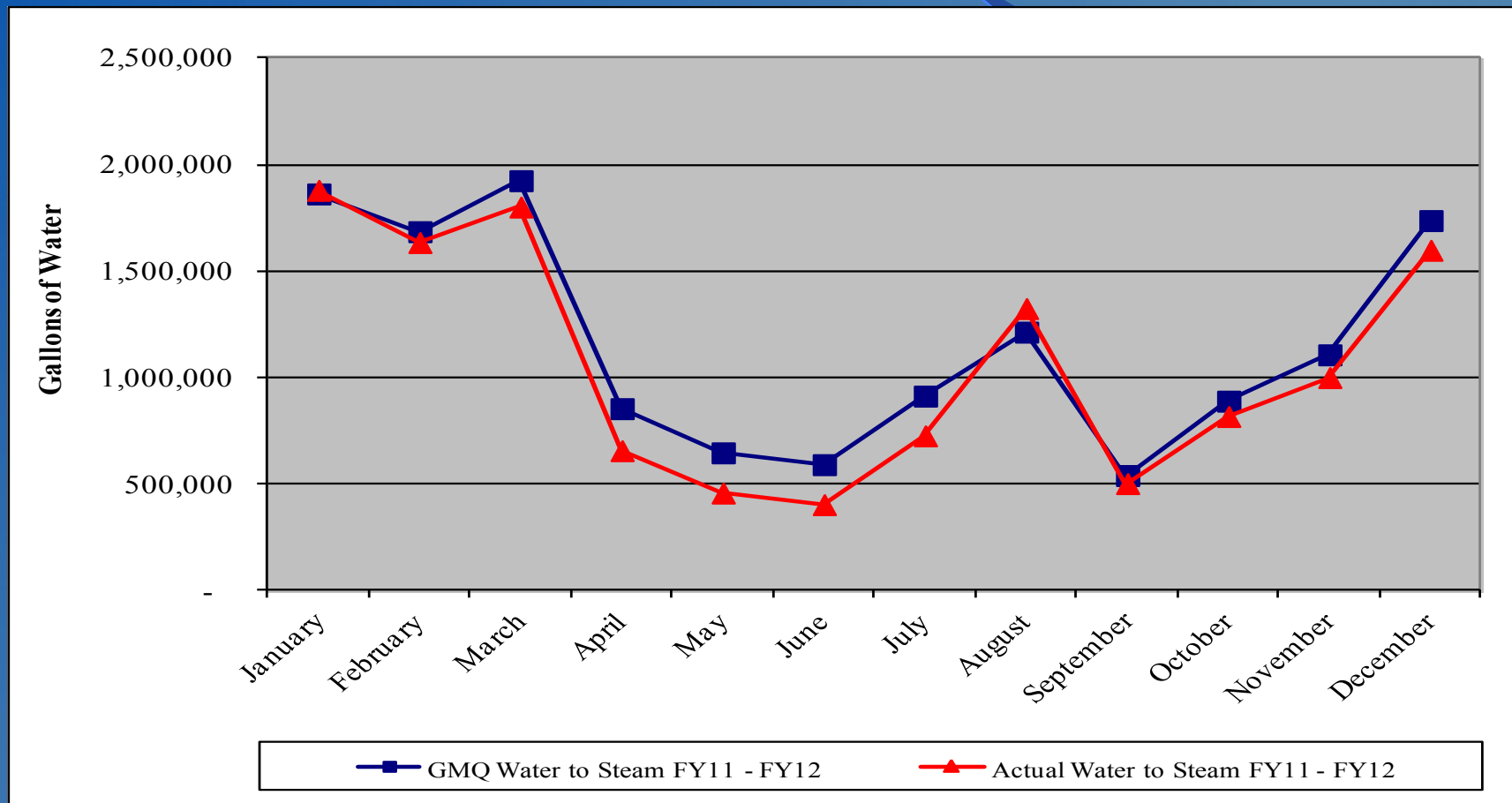


*Performance Measurement FY12: Steam
Plant Efficiency*



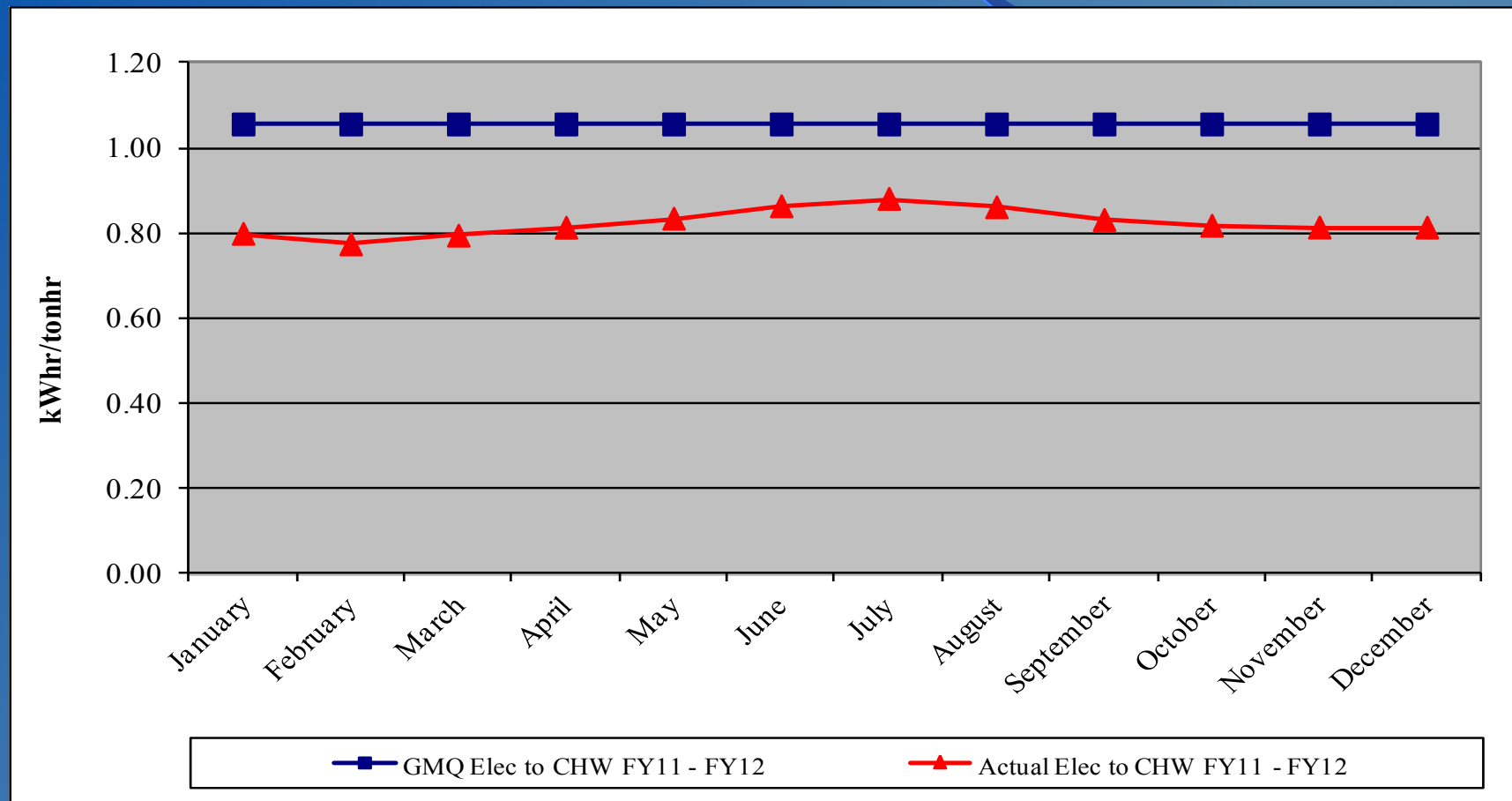


Performance Measurement FY12: Steam Water Conversion



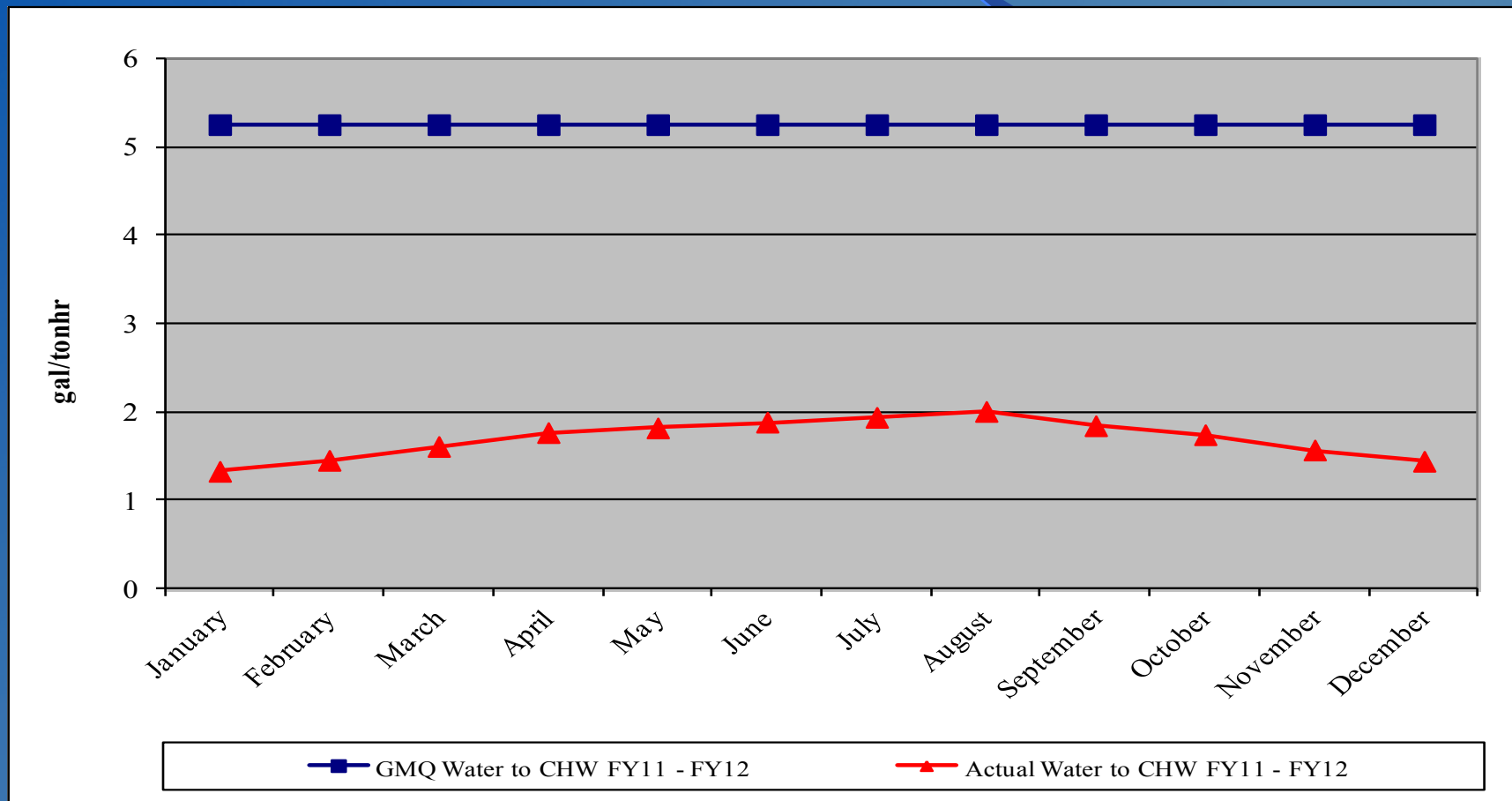


Performance Measurement FY12: CHW
Electric Conversion





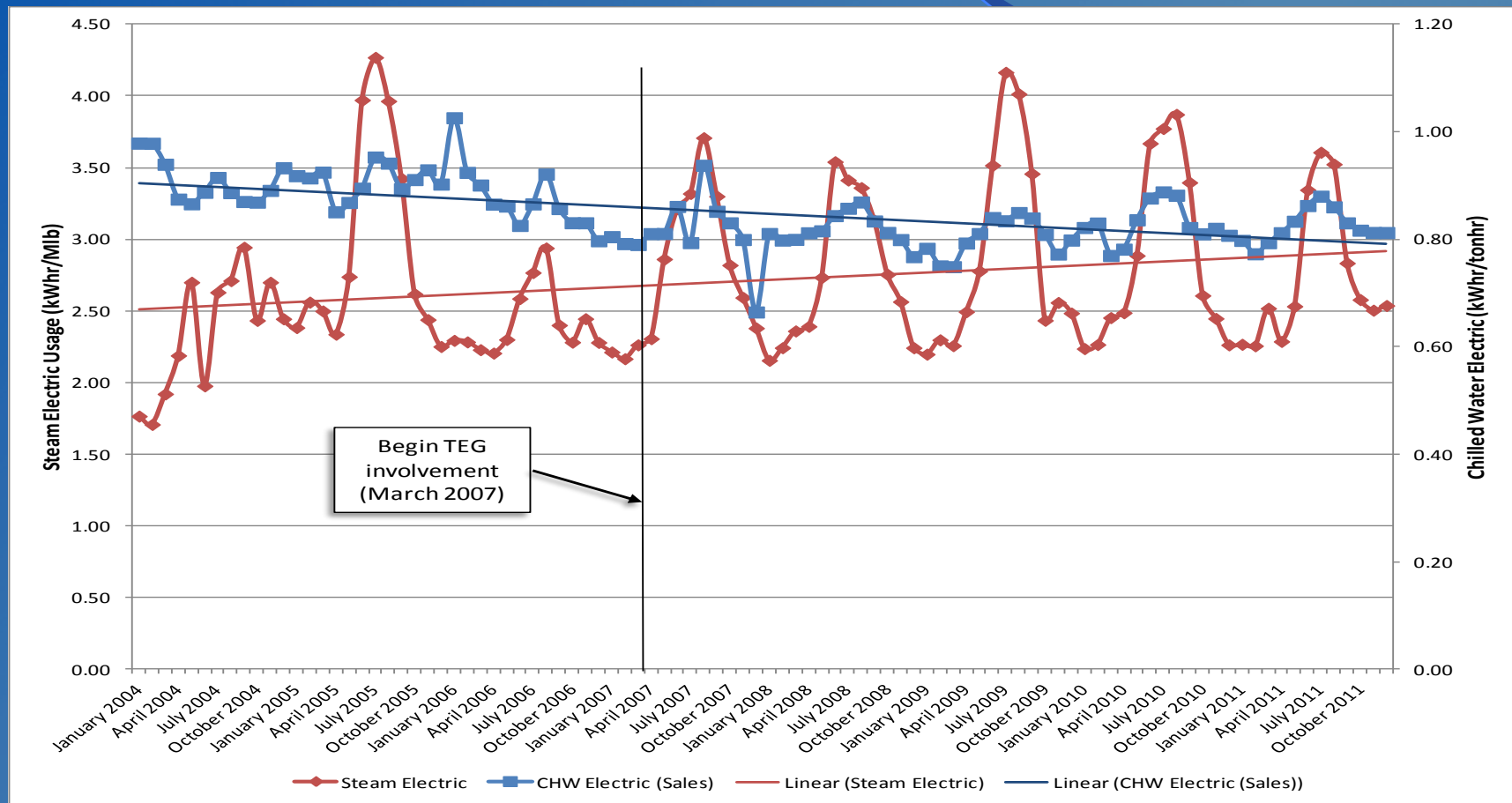
Performance Measurement FY12: CHW
Water Conversion



Metro Nashville DISTRICT ENERGY SYSTEM



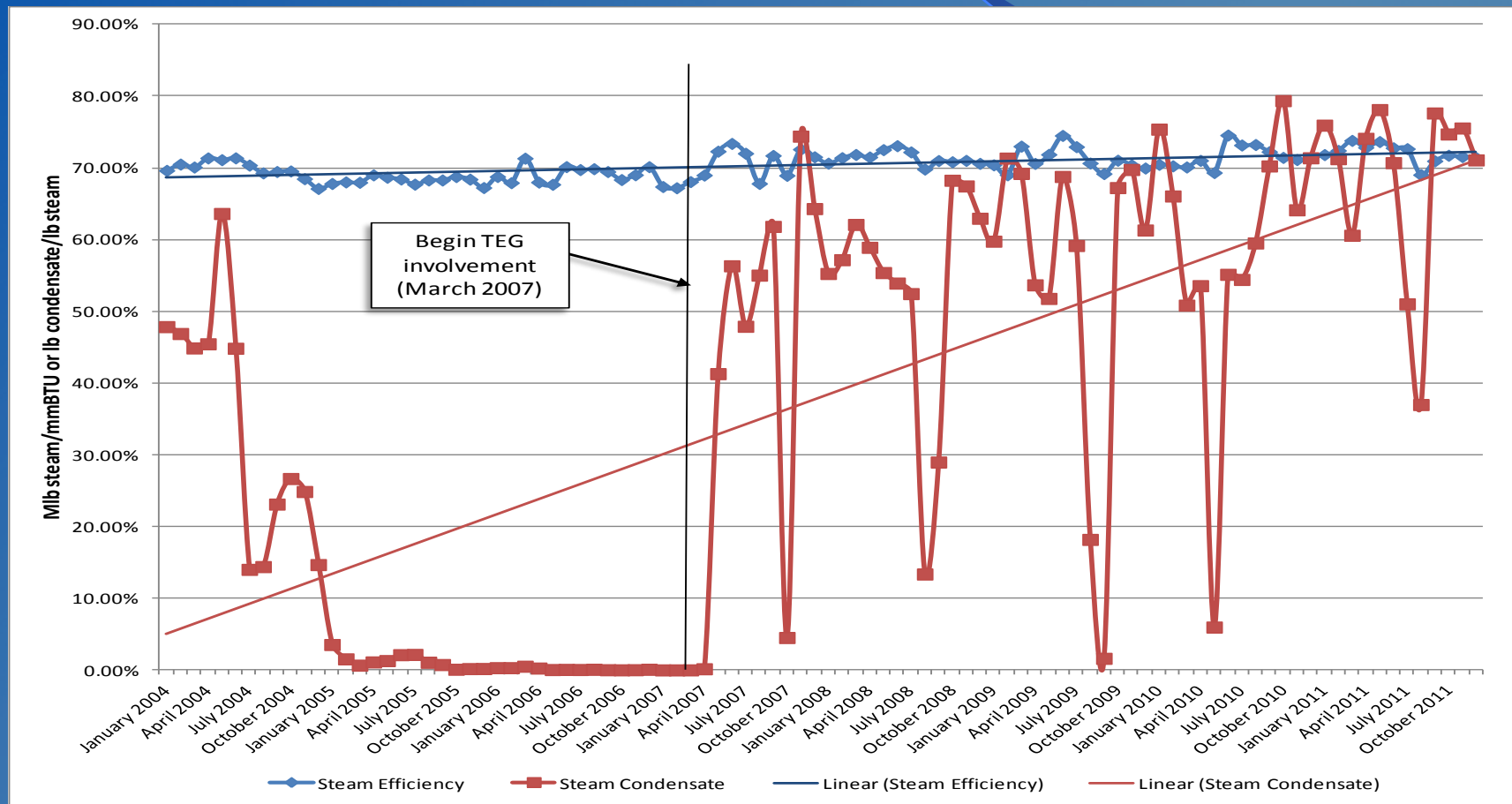
EGF Historic Electric Usage



Metro Nashville DISTRICT ENERGY SYSTEM



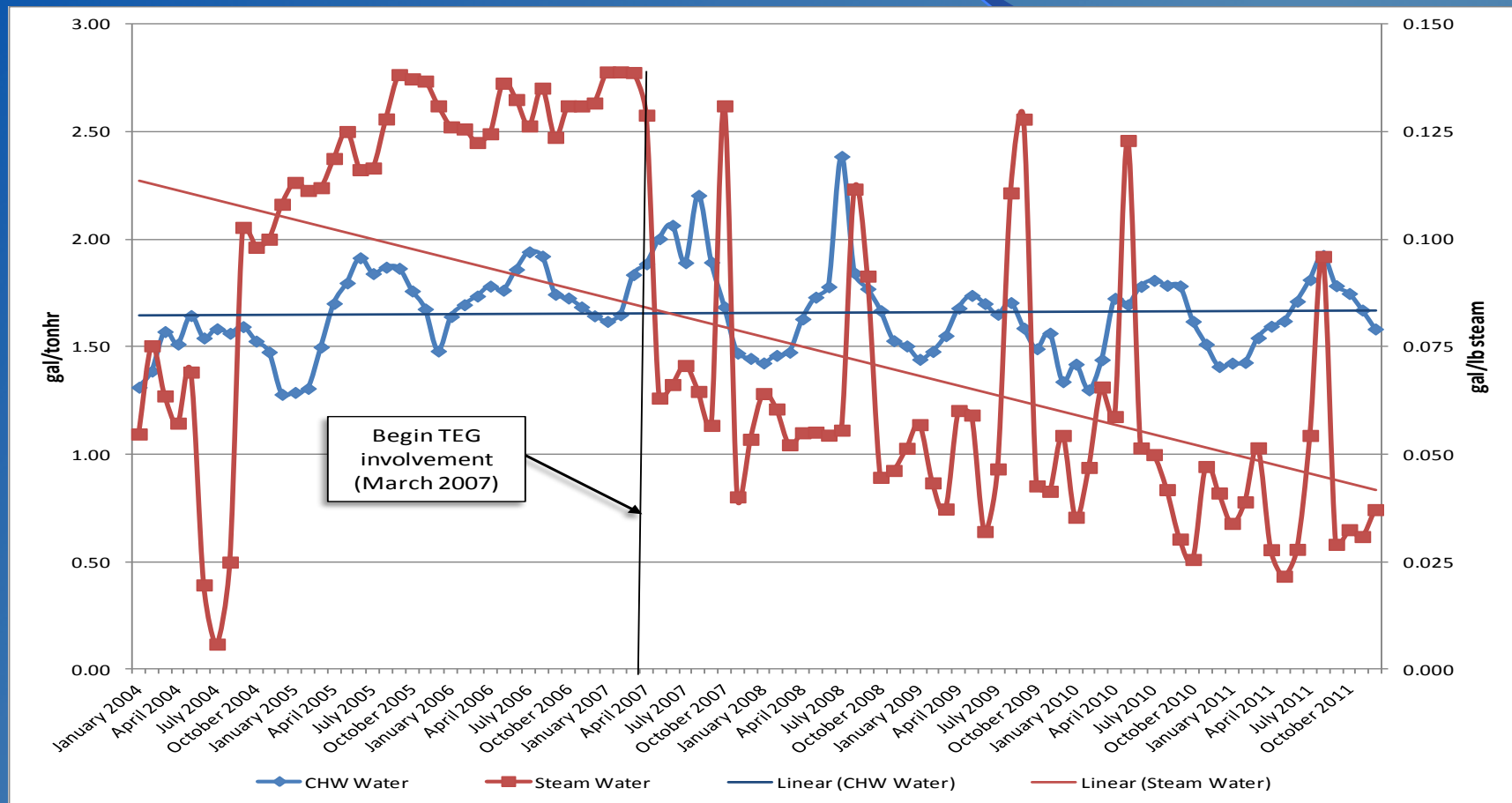
EGF Historic Steam Plant Efficiency



Metro Nashville DISTRICT ENERGY SYSTEM



EGF Historic City Water Usage ●





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 (DES 080 under construction) ●



5. Natural Gas Purchasing

- Natural Gas Purchasing Review
 - Table 5: FY12 Gas Spending & Budget Comparison
 - Figure 5: Actual and Projected Gas Cost Comparison for FY12



Table 5: FY12 Gas Spending & Budget Comparison

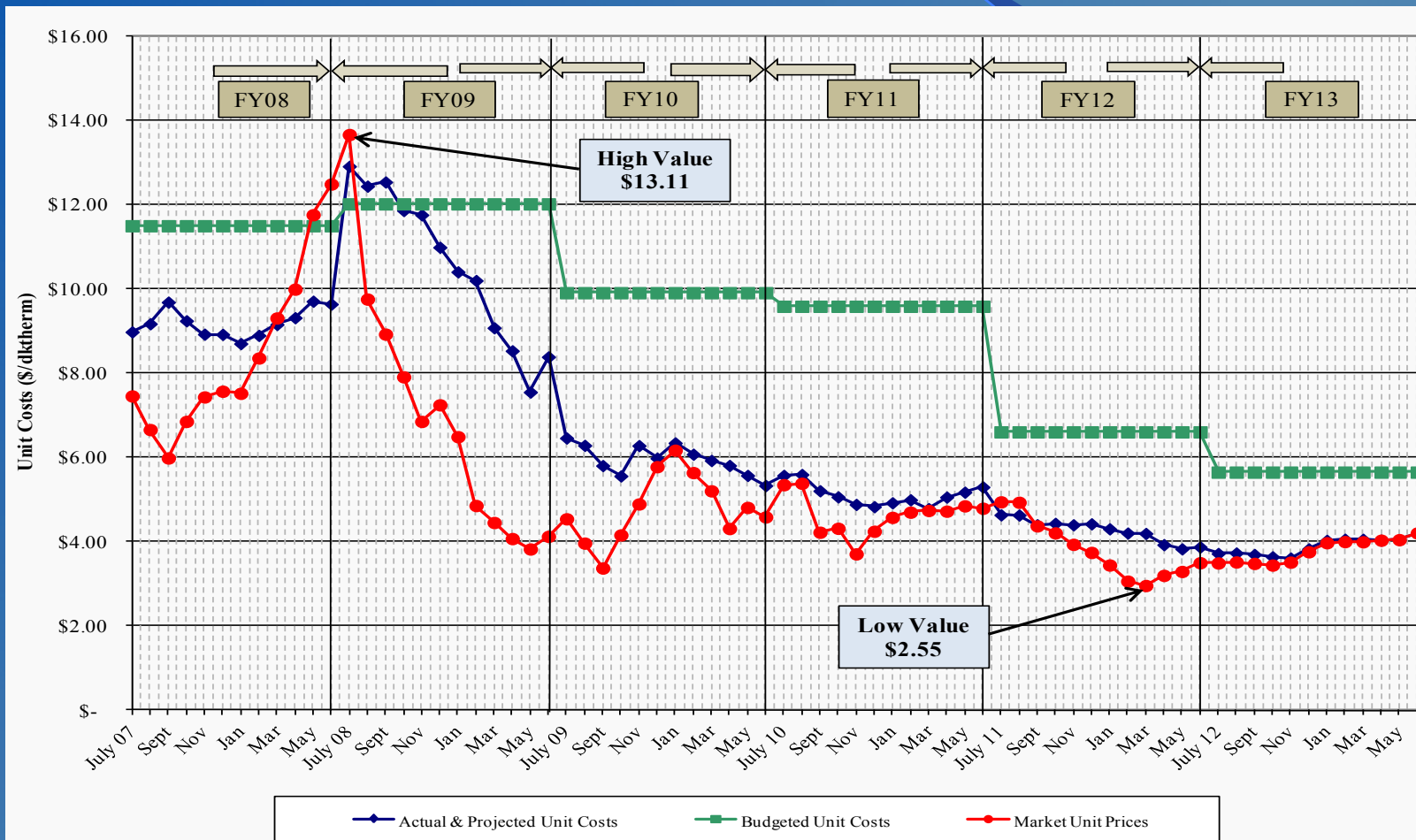
	Actual FY12 To date (Dec 31)	Budget FY12	Percent Difference
Steam Sendout (Mlbs)	143,511	149,718	4.2%
Fuel Use (Dth) (includes propane)	● 201,209	212,300	5.2%
Plant Eff (Dth/Mlb)	● 1.402	1.418	1.1%
Total Gas Cost (includes propane)	● \$988,547	\$1,404,152	29.6%
Unit Cost of Fuel (\$/ Dth)	● \$4.913	\$6.614	25.7%

Excludes consultant fees and FEA

Metro Nashville DISTRICT ENERGY SYSTEM



Figure 5. Actual and Projected Gas Cost Comparison History





6. FY12 Costs to Date

Item	FY11 Actual	FY12 Budget w/MCCC	FY12 Actual	Percent of FY12 Budget
FOC's	\$ 4,129,302	\$ 4,303,100	\$ 2,123,700	49.35%
Pass Throughs				
Non-Energy	\$ 859,795	\$ 1,031,400	\$ 379,407	36.79%
Water/Sewer	\$ 396,869	\$ 597,700	\$ 248,905	41.64%
Natural Gas	\$ 2,496,141	\$ 3,939,300	\$ 996,752	25.30%
Electricity	\$ 4,310,054	\$ 5,192,900	\$ 2,719,406	52.37%
Debt Service	\$ 5,042,150	\$ 5,703,700	\$ 2,299,974	40.32%
Total Expenses	\$ 17,234,310	\$ 20,768,100	\$ 8,768,144	42.22%
Total Revenues	\$ 15,395,261	\$ 18,405,100	\$ 8,316,002	45.18%
Metro Funding Amount	\$ 1,839,049	\$ 2,363,000	\$ 452,142	19.13%



7. Capital Expenditure Update

	Spent to End of FY11	FY12 Spending	Balance to Date (01/18/12)
R&I Projects	\$1,313,613	\$127,250	\$493,446
2005B Bond	\$8,139,071	\$22,997	\$24,433
2010 Bond	\$1,461,651	\$66,151	\$882,199
MCCC Fund	\$3,856,349	\$978,254	\$3,665,397
Total	\$14,770,684	\$1,194,652	\$5,065,474



Capital Projects Review

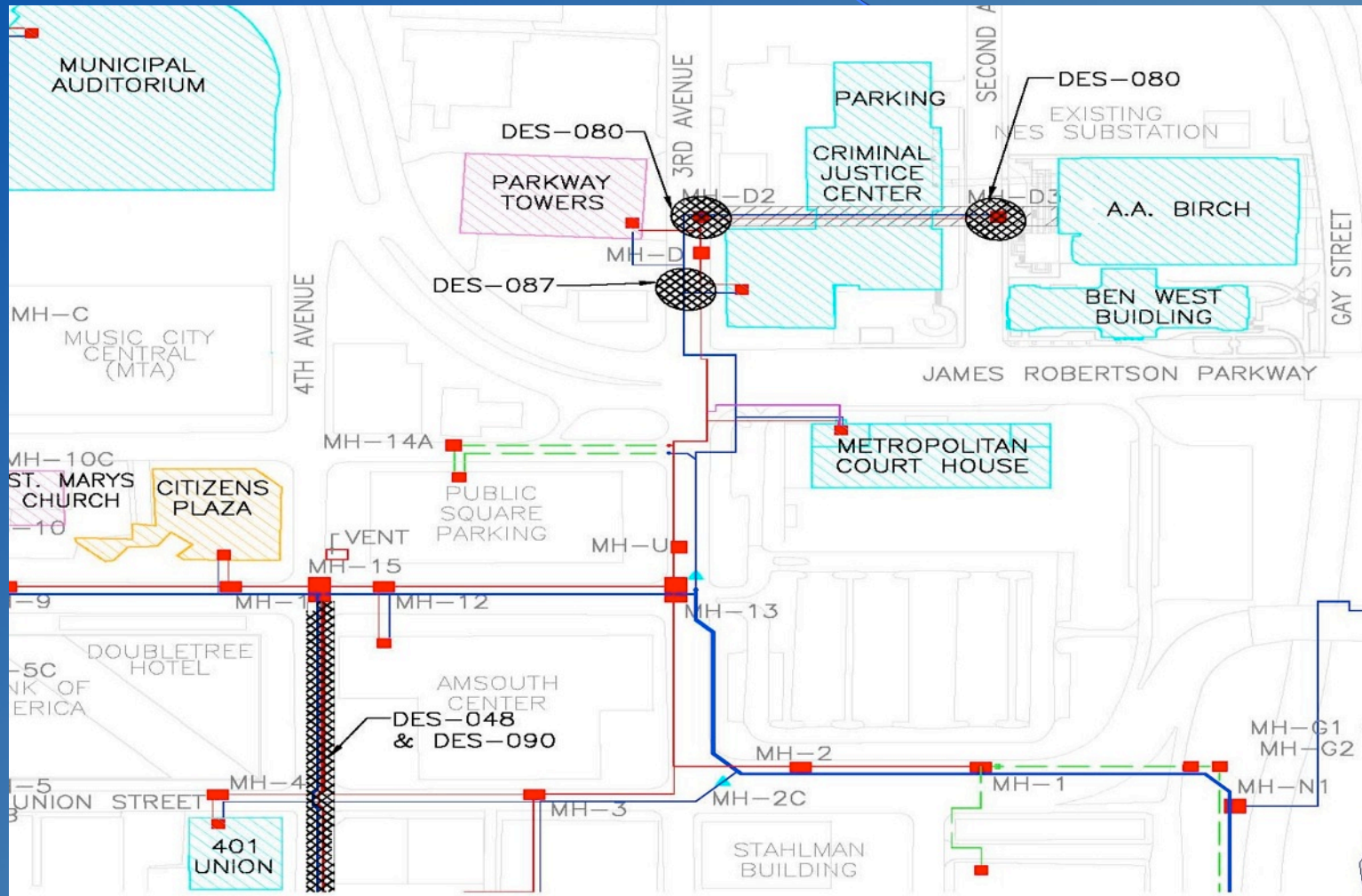
Active Capital Projects

- DES 048: Tunnel Lighting Replacement Phase III – in construction
- DES 061: MH & Tunnel Steel Corrosion Repair & Prevention – in construction/ongoing (DES 061B closed)
- DES 076: MH-S4A State Manhole Rebuild – in construction
- DES 080: Misc. MH & Tunnel Safety Repairs – in construction
- DES 088: Andrew Jackson PRV Control – in construction
- DES 090: MH/Tunnel Insulation - in construction/ongoing
- DES 091: Thermal Storage System – in design/evaluation phase
- DES 092: Sheraton Hotel CHW Pumps – in construction
- DES 093: Manhole 6 Repair and Structural Rehabilitation – in construction
- DES 094: Molloy Street Exploratory Dig – Phase I complete; Phase II to start construction during Third Quarter FY12

Metro Nashville DISTRICT ENERGY SYSTEM



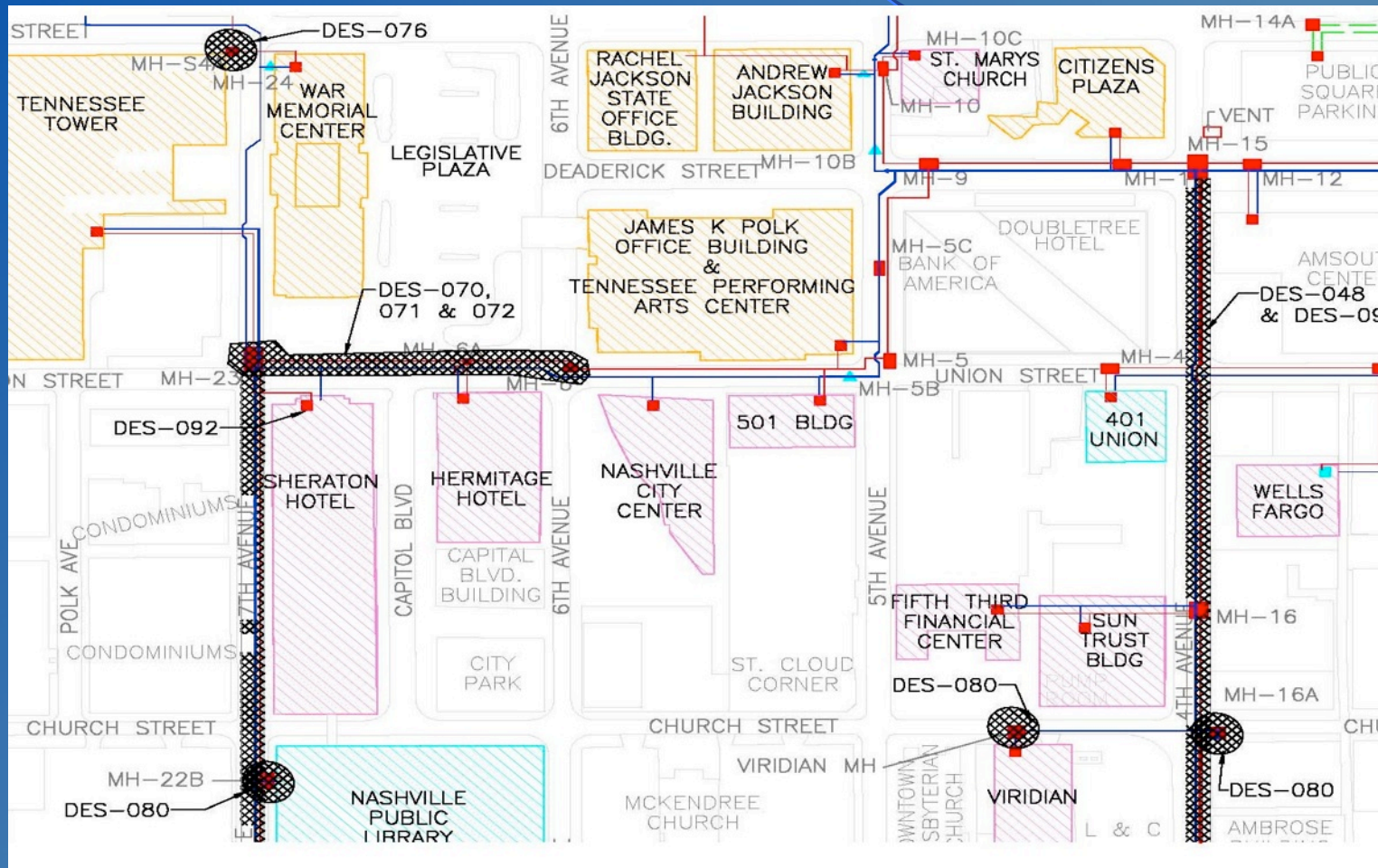
Active Capital Projects



Metro Nashville DISTRICT ENERGY SYSTEM



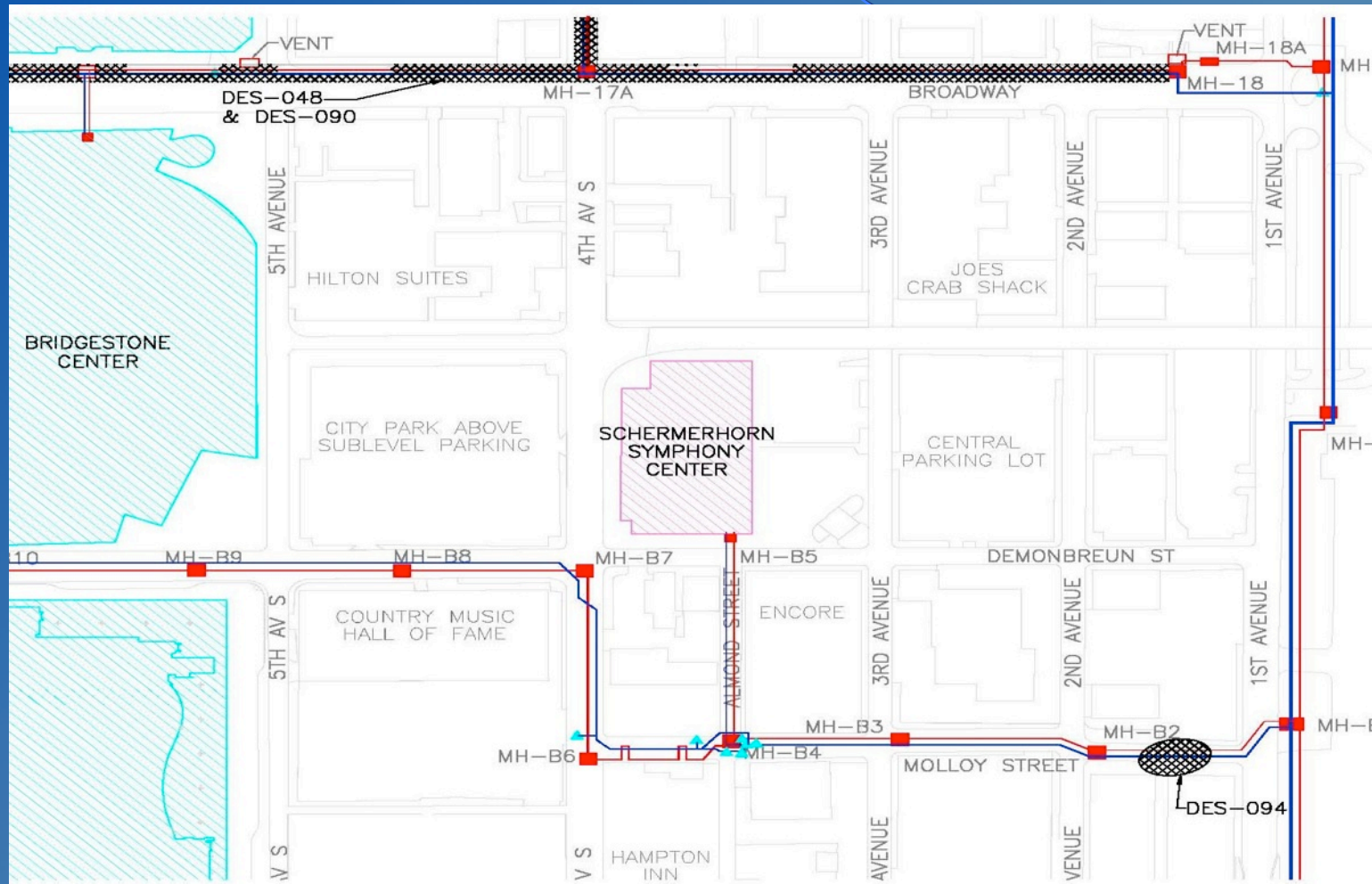
Active Capital Projects



Metro Nashville DISTRICT ENERGY SYSTEM



Active Capital Projects





Capital Projects Review

Capital Projects in Close-out

- DES 061B: Structural Repairs to MH 3 and MH4 - closed
- DES 077: Expansion of Service to the Music City Convention Center – complete; awaiting service connection; meter connection
- DES 083: Manhole 13 Leak & Structural Component Repair – closed



8. Thermal Storage & Time of Use Rates

- Developing Capital Estimate
- Storage Tank Proposed Location at MDHA Property between Woodland St and James Robertson Bridges
- Anticipate 10 to 12 year Simple Return
- Benefits Include:
 - Reduced Electric Peak Demand Charge
 - Reduced Monthly Energy Cost (slightly)
 - Increased Potential for Customer Expansion North of Broadway



9. Music City Convention Center Expansion Update

- Minor Punchlist Items Remaining on Distribution
- In-building Piping at Metering Station (remains to be completed)
- Cooling Tower Testing – Completed
- EGF CHW Pumps – Under Construction
- CHW Service Expected April 2012
- Steam Service Expected Nov 2012



10. Potential New Customers

- Nashville Hyatt Place (Molloy & 3rd Ave S)
 - CHW Demand = 300 tons
 - Steam Demand = 9,000 pph
- Medical Mart
- Omni Hotel – *not going to be a DES Customer*



11. Other Board Member Items

Customer Meeting – March 15, 2012

12. Adjourn

Advisory Board Meeting Schedule

- FY12 – 3rd Quarter Meeting – May 17, 2012
- FY12 – 4th Quarter Meeting – August 16, 2012
- FY13 – 1st Quarter Meeting – November 15, 2012
- FY13 – 2nd Quarter Meeting – February 21, 2013