

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

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

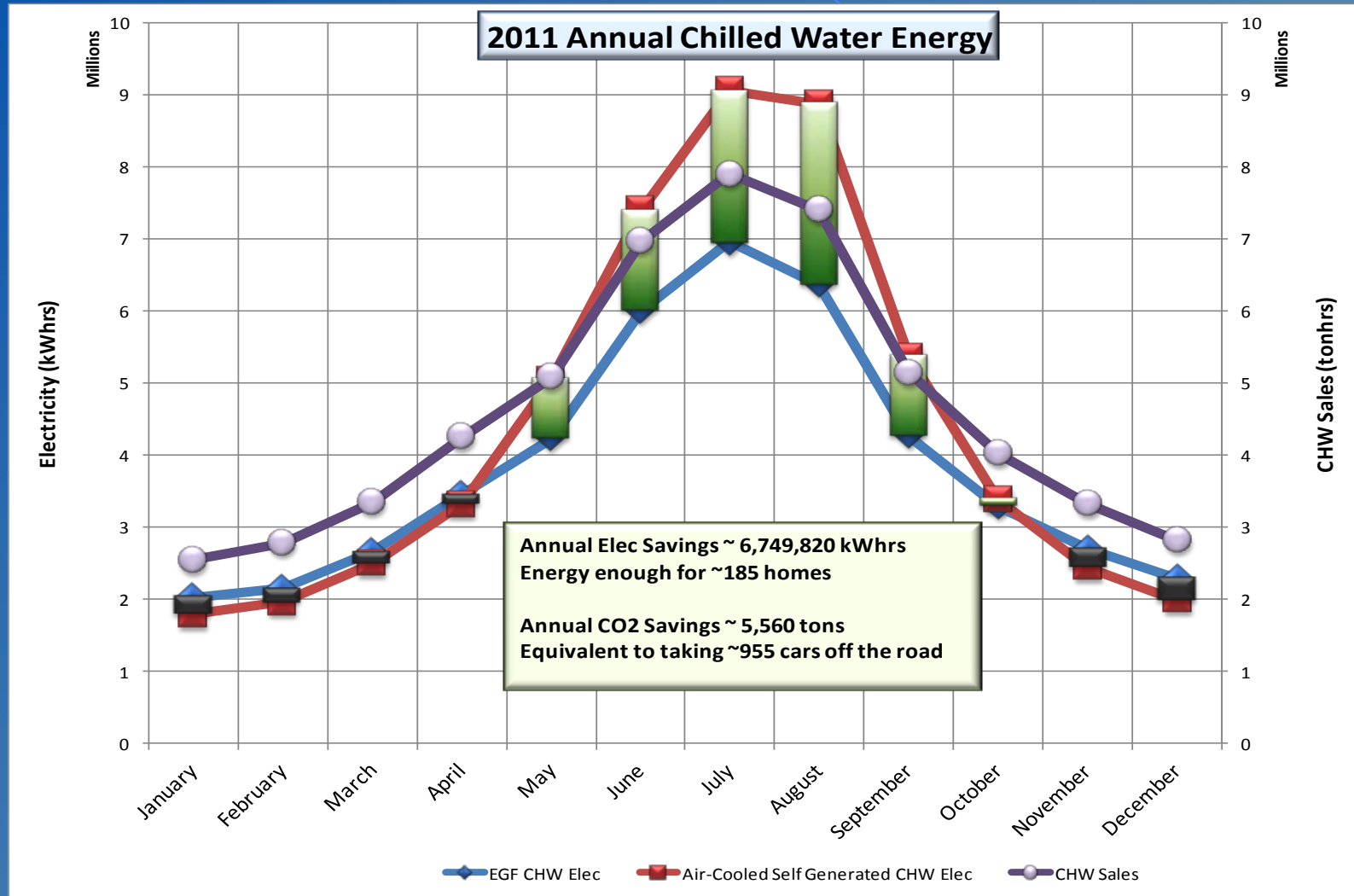
		Steam - Rolling 12 Month			Chilled Water - Rolling 12 Month		
		Jan 2010 - Dec 2010	Jan 2011 - Dec 2011	% Diff.	Jan 2010 - Dec 2010	Jan 2011 - Dec 2011	% Diff.
Private	Cost	\$ 1,695,147	\$ 1,513,198	-10.73%	\$ 3,157,321	\$ 3,328,840	5.43%
	Usage (lbs or tonhrs)	72,933,828	85,554,418	17.30%	16,833,341	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

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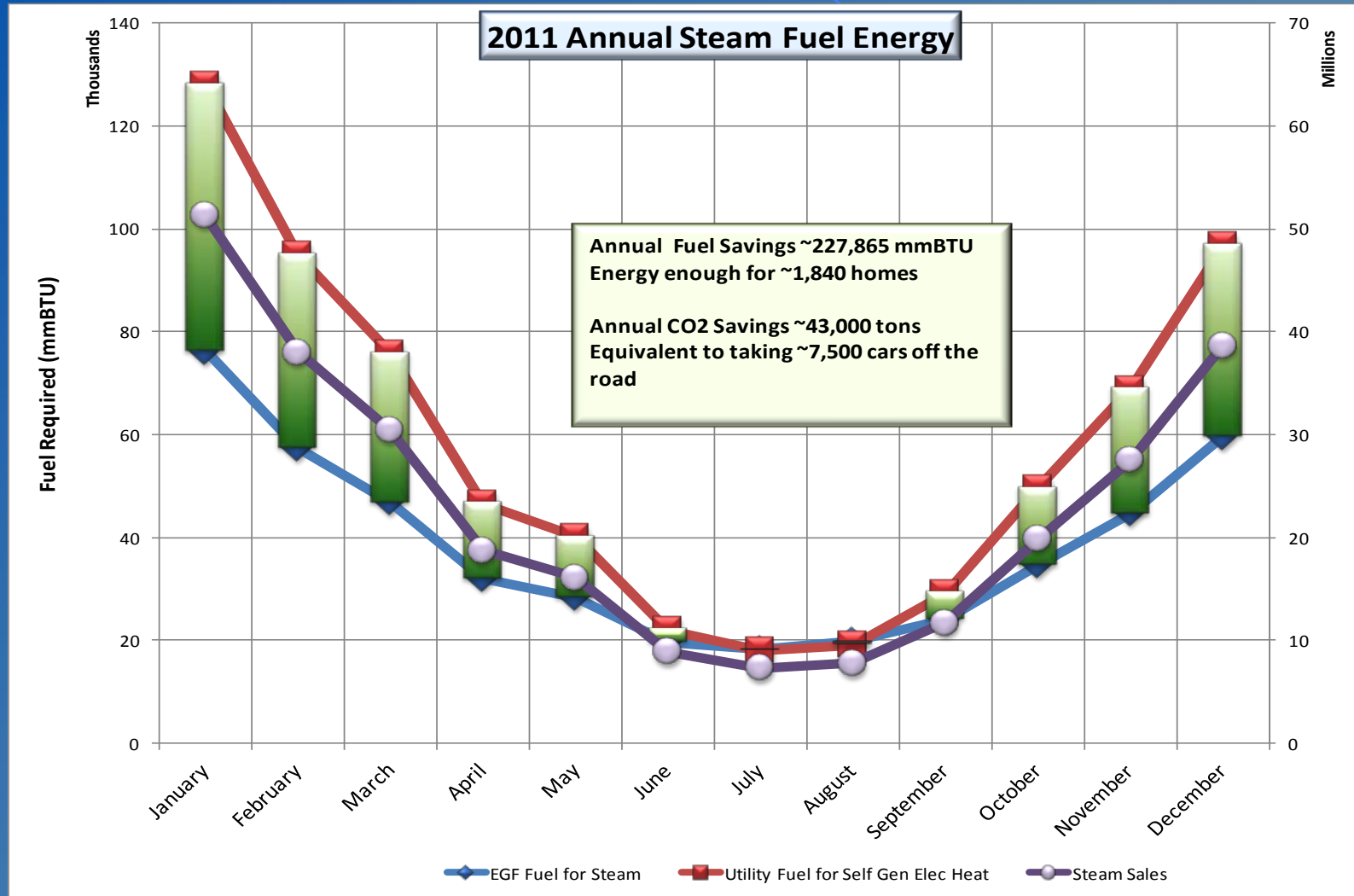
Figure 3A: CHW Sales & Energy Comparison



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Figure 3B: Steam Sales & Energy Comparison





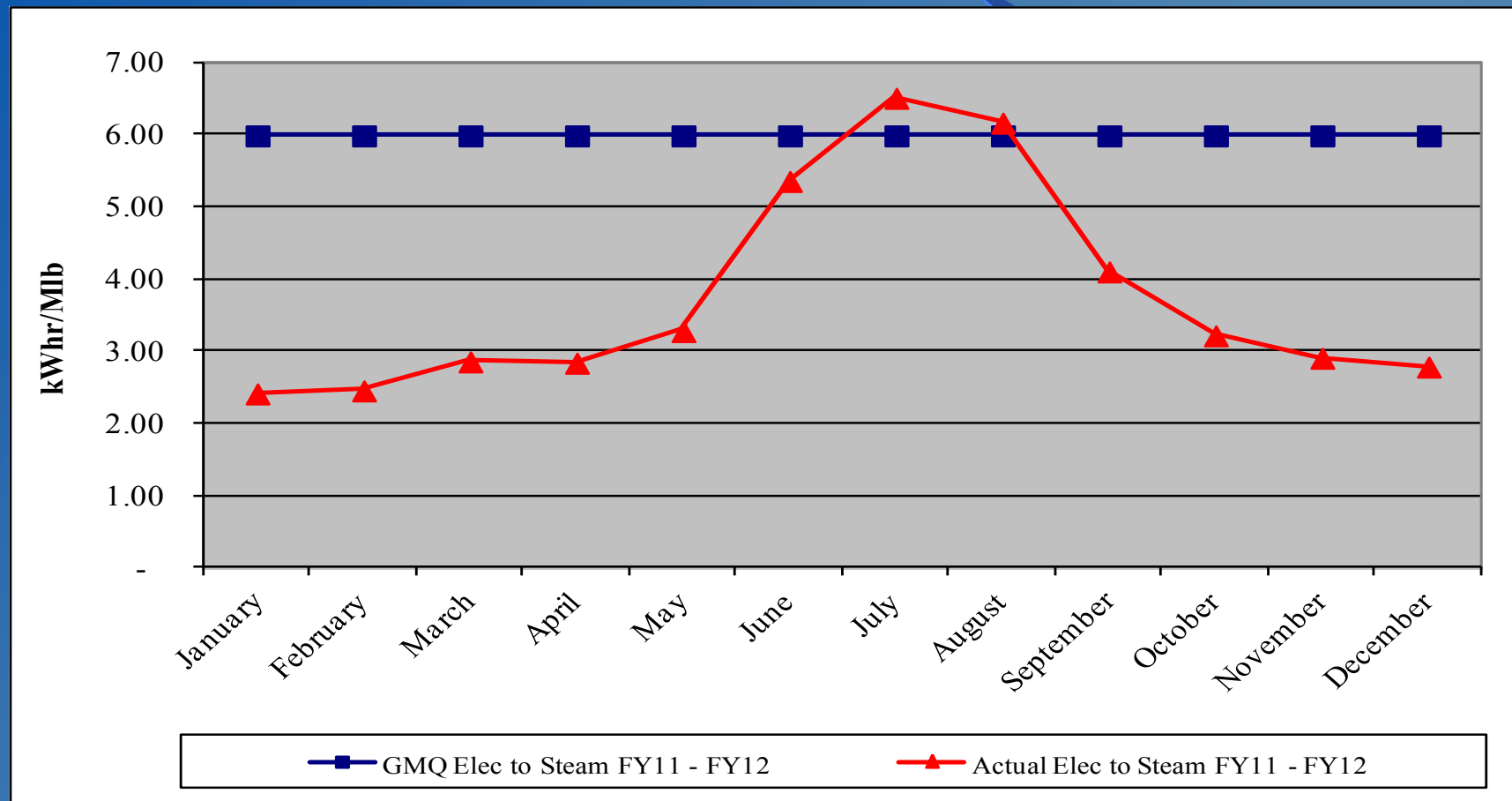
4. Review of DES Contractor Performance

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

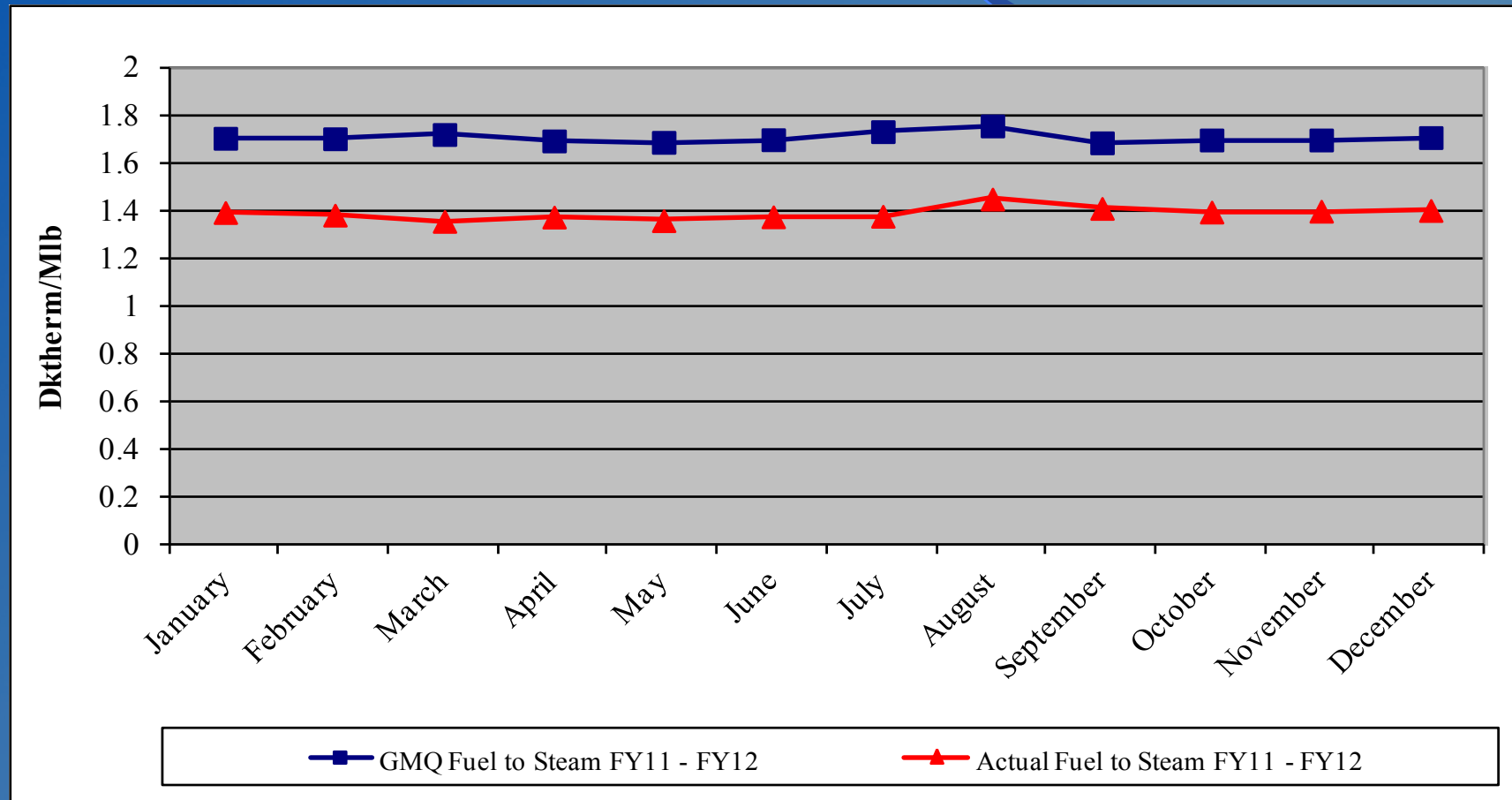


Performance Measurement FY12: Steam
Electric Conversion



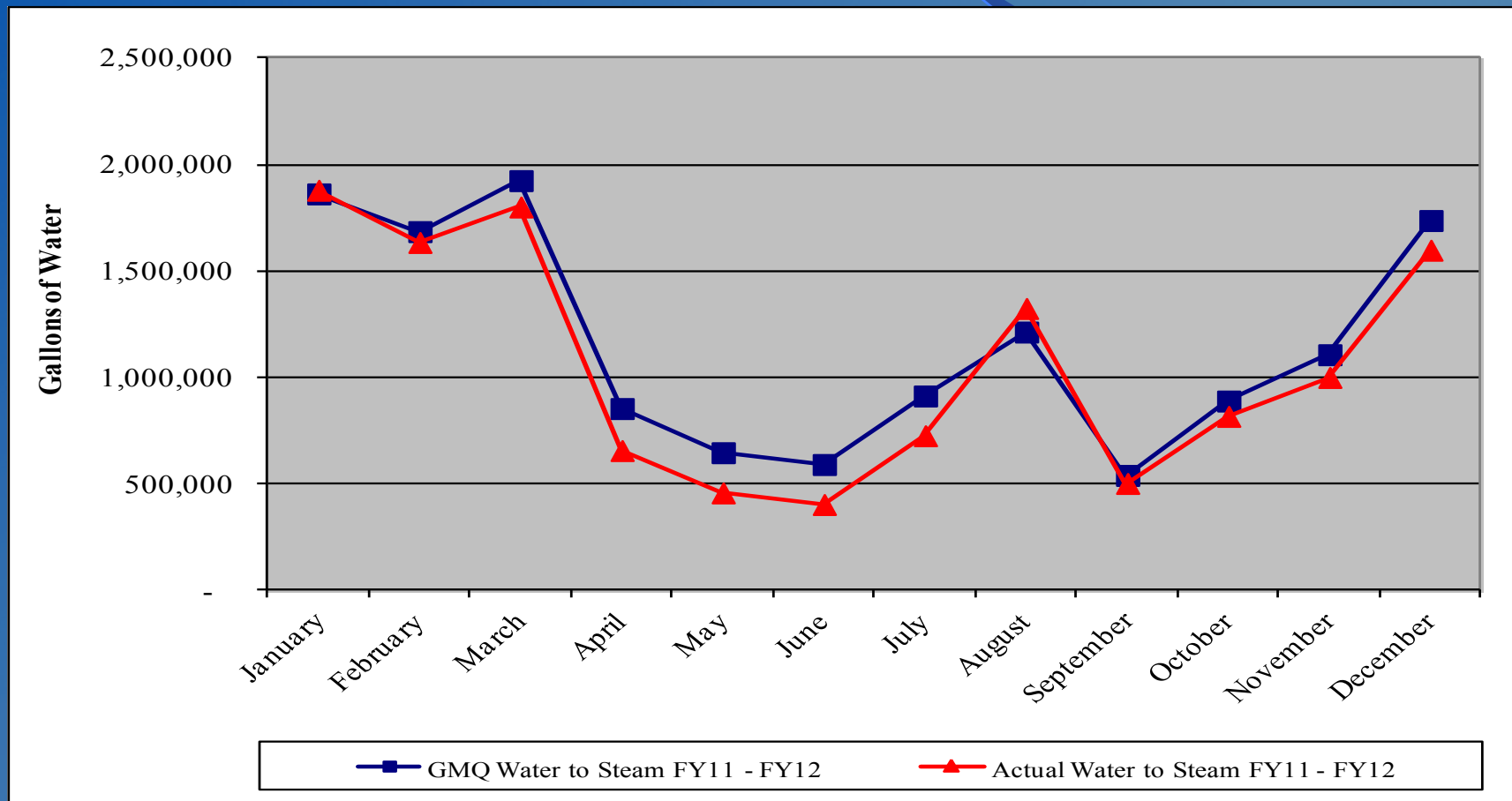


*Performance Measurement FY12: Steam
Plant Efficiency*



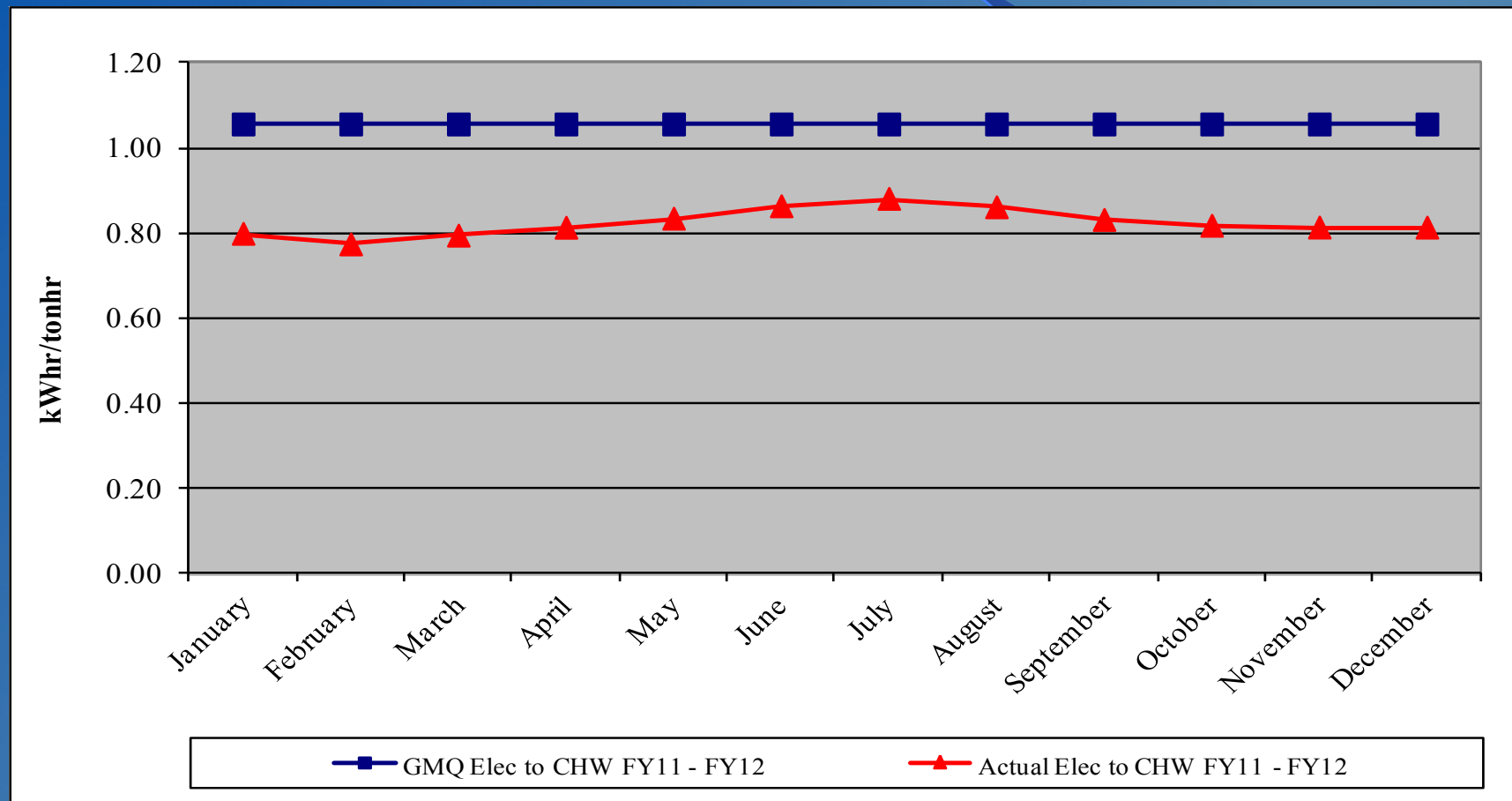


Performance Measurement FY12: Steam Water Conversion



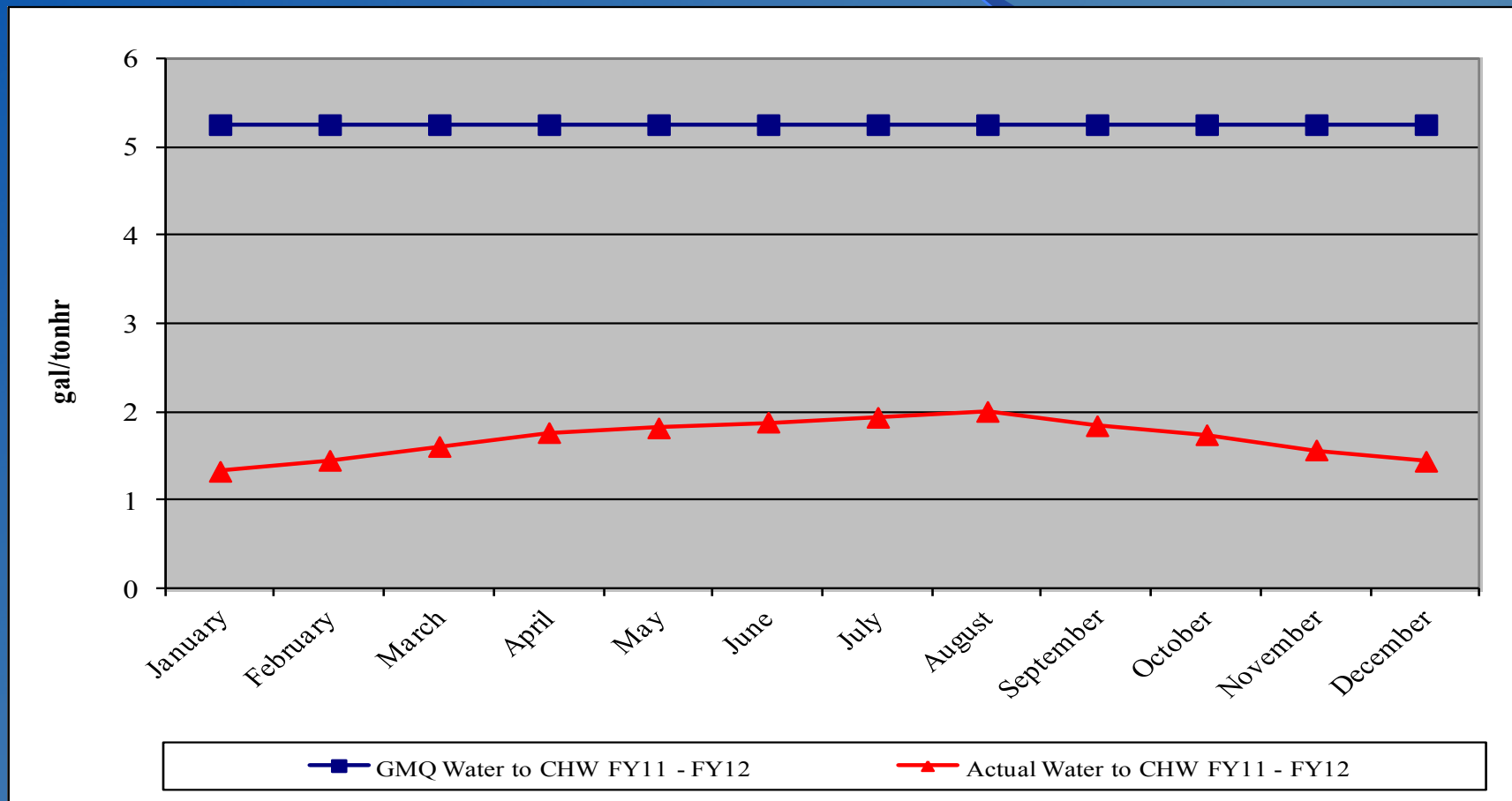


Performance Measurement FY12: CHW
Electric Conversion





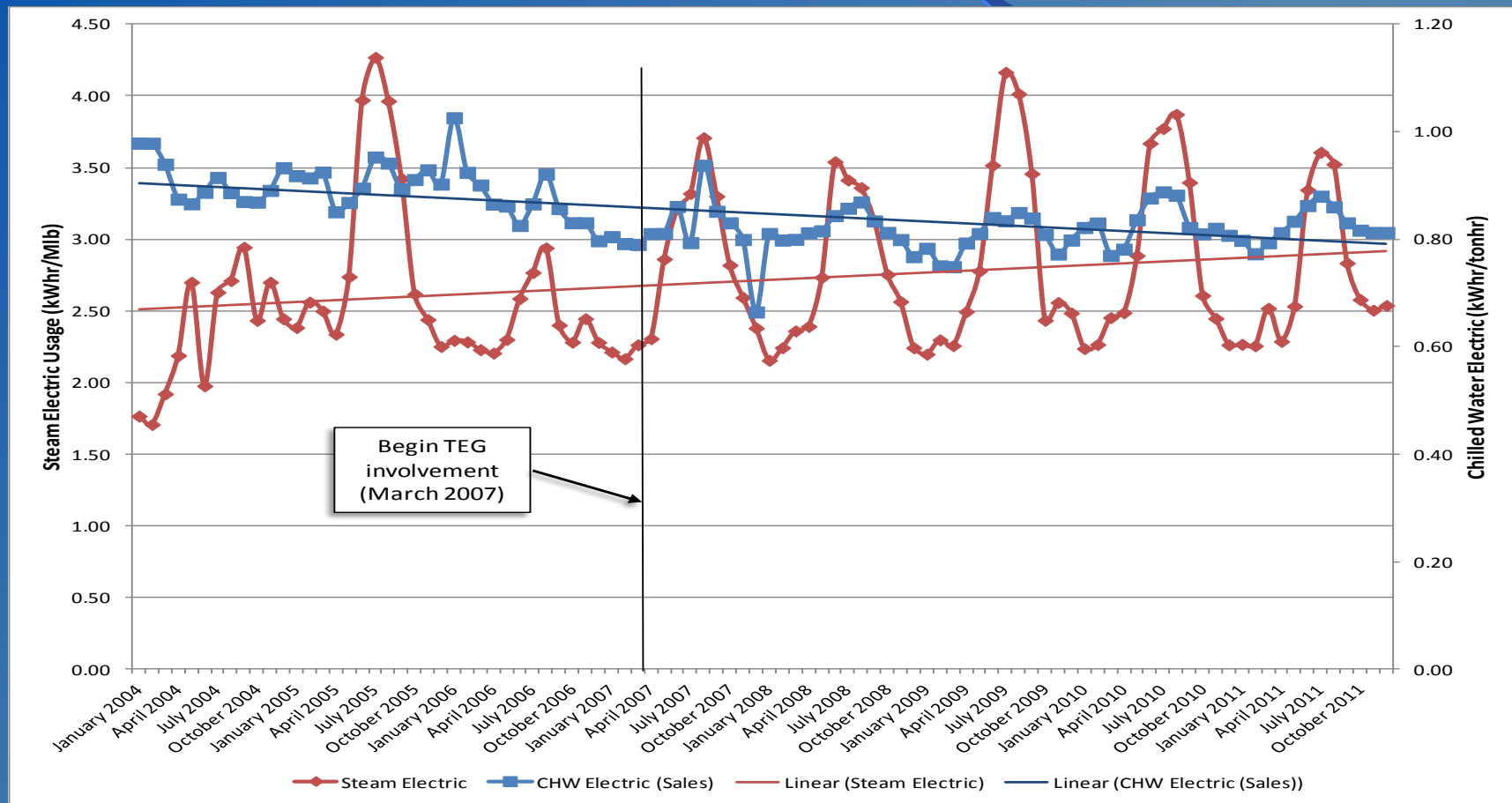
Performance Measurement FY12: CHW
Water Conversion



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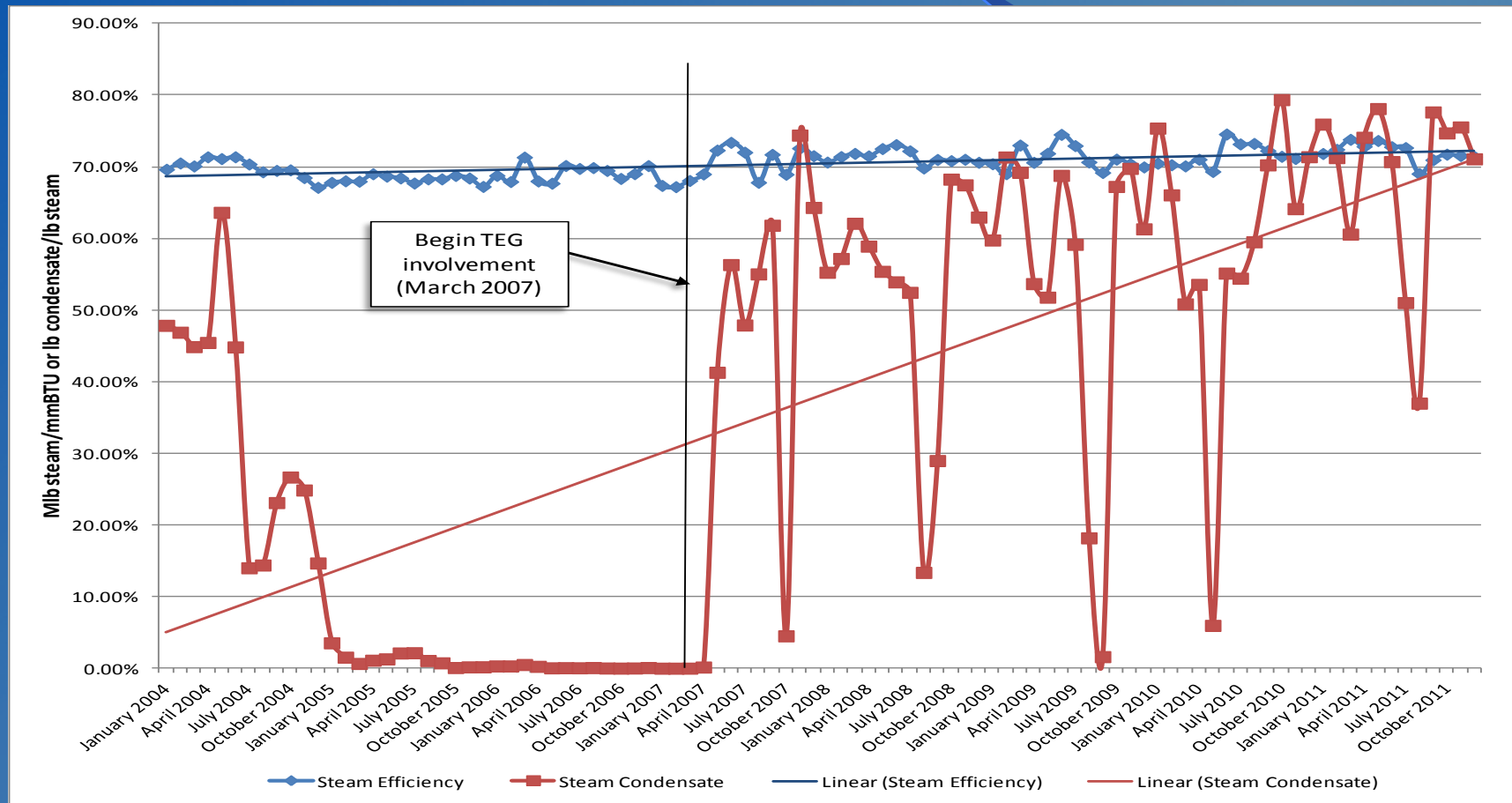
EGF Historic Electric Usage



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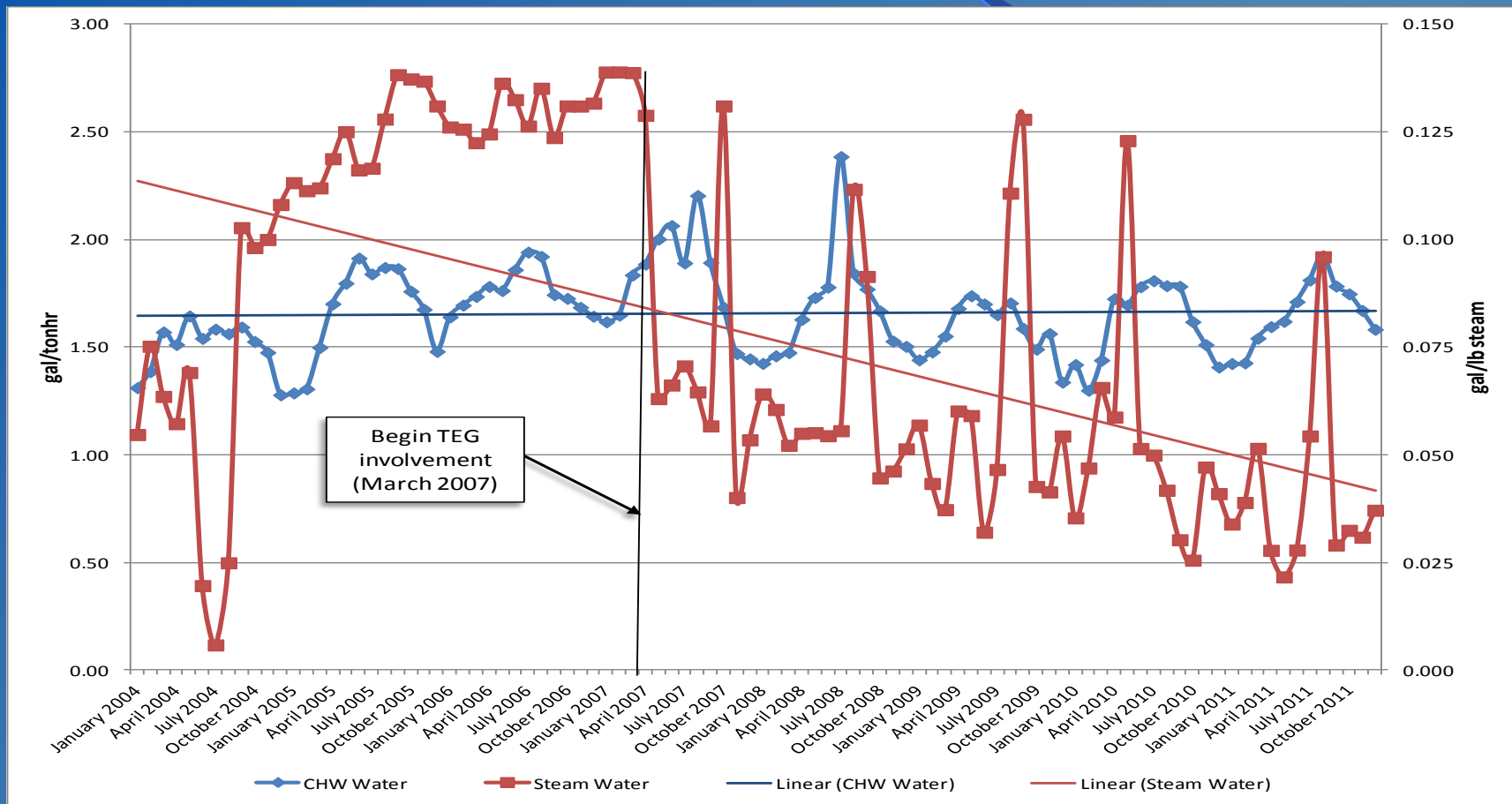
EGF Historic Steam Plant Efficiency



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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

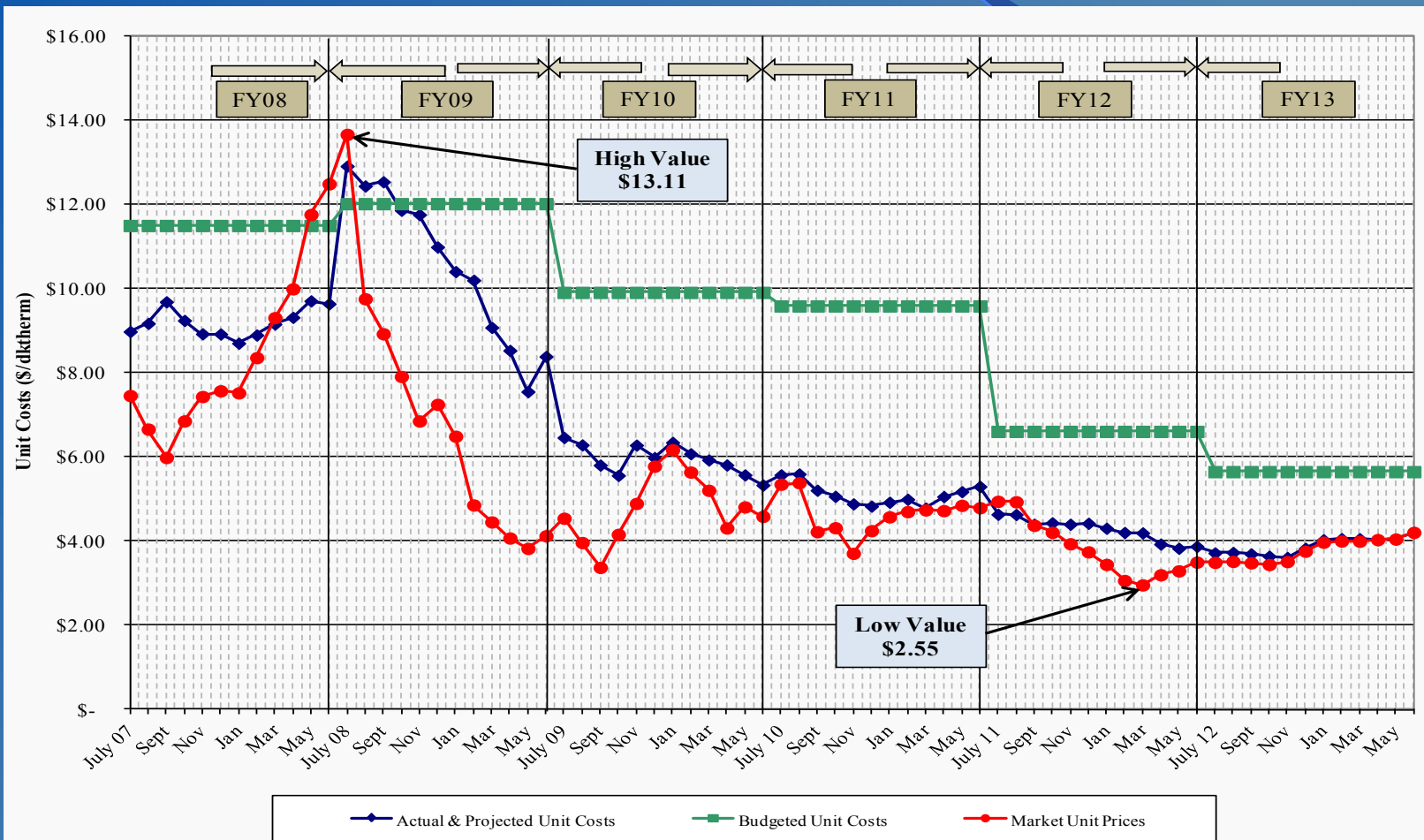
	Actual FY12 To date (Dec 31)	Budget FY12	Percent Difference
Steam Sendout (Mlbs)	143,511	149,718	4.2%
Fuel Use (Dth) (includes propane)	● 201,209	212,300	5.2%
Plant Eff (Dth/Mlb)	● 1.402	1.418	1.1%
Total Gas Cost (includes propane)	● \$988,547	\$1,404,152	29.6%
Unit Cost of Fuel (\$/ Dth)	● \$4.913	\$6.614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

Excludes consultant fees and FEA

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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

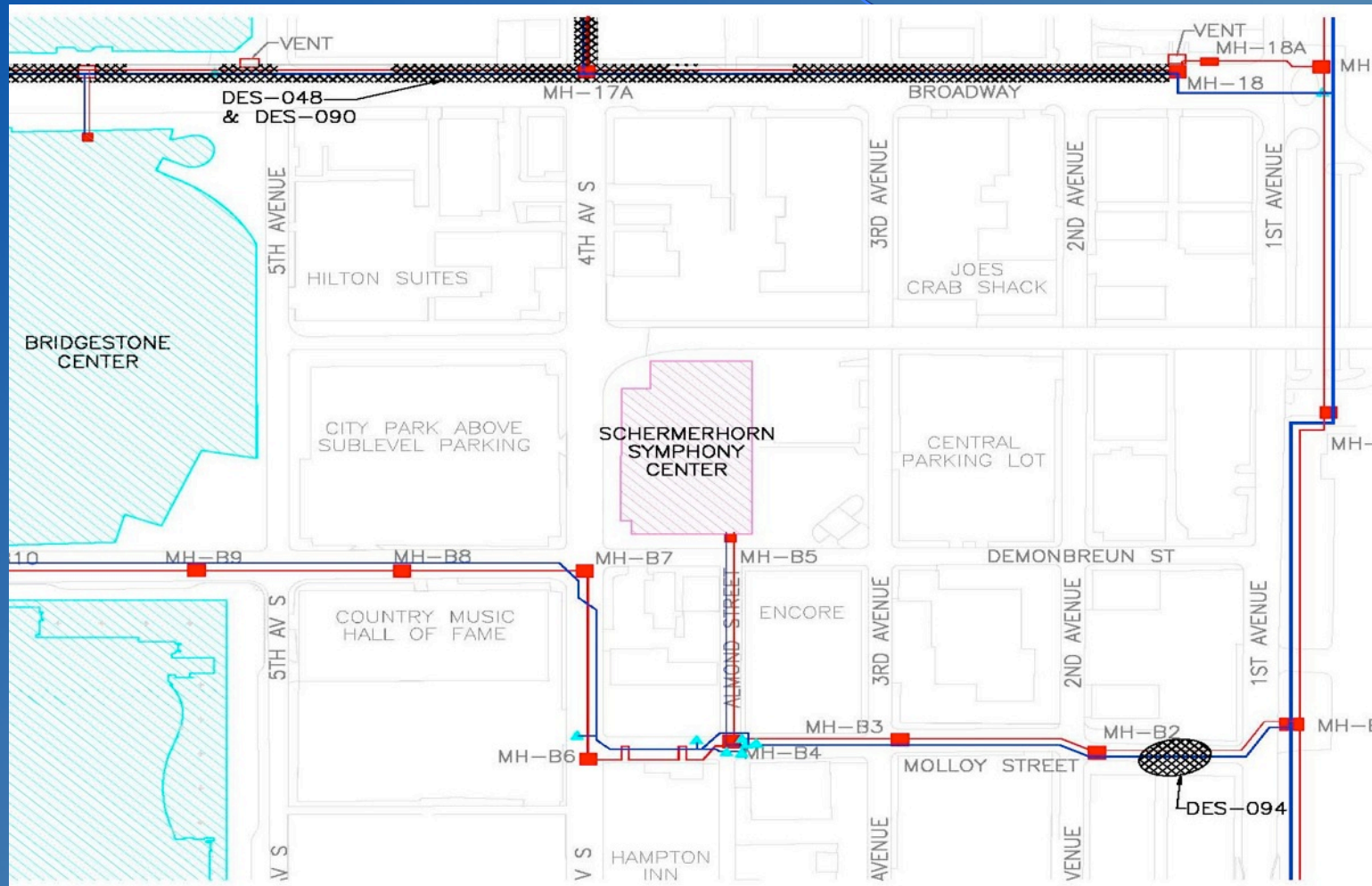
Active Capital Projects

- 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

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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