



Metro Nashville
DISTRICT ENERGY SYSTEM

Advisory Board Quarterly Meeting
First Quarter FY10

Presented to
District Energy Advisory Board

November 19, 2009



Agenda

1. Call to Order
2. Review & Approval of Previous Meeting Minutes
3. Review of DES Contractor Performance
4. Natural Gas Purchasing Status
5. Financial Reports – 1st Qtr FY10
6. FY09-10 Budget Status Report
7. Capital Projects Review and Status Report
8. DES Emergency Response Plan
9. Adjourn



Metro Nashville
DISTRICT ENERGY SYSTEM




1. Call to Order

2. Review and Approval of Previous Meeting Minutes



3. Review of DES Contractor Performance

Contractor (CNDE) is in compliance with their contractual obligations for FY10.

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



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

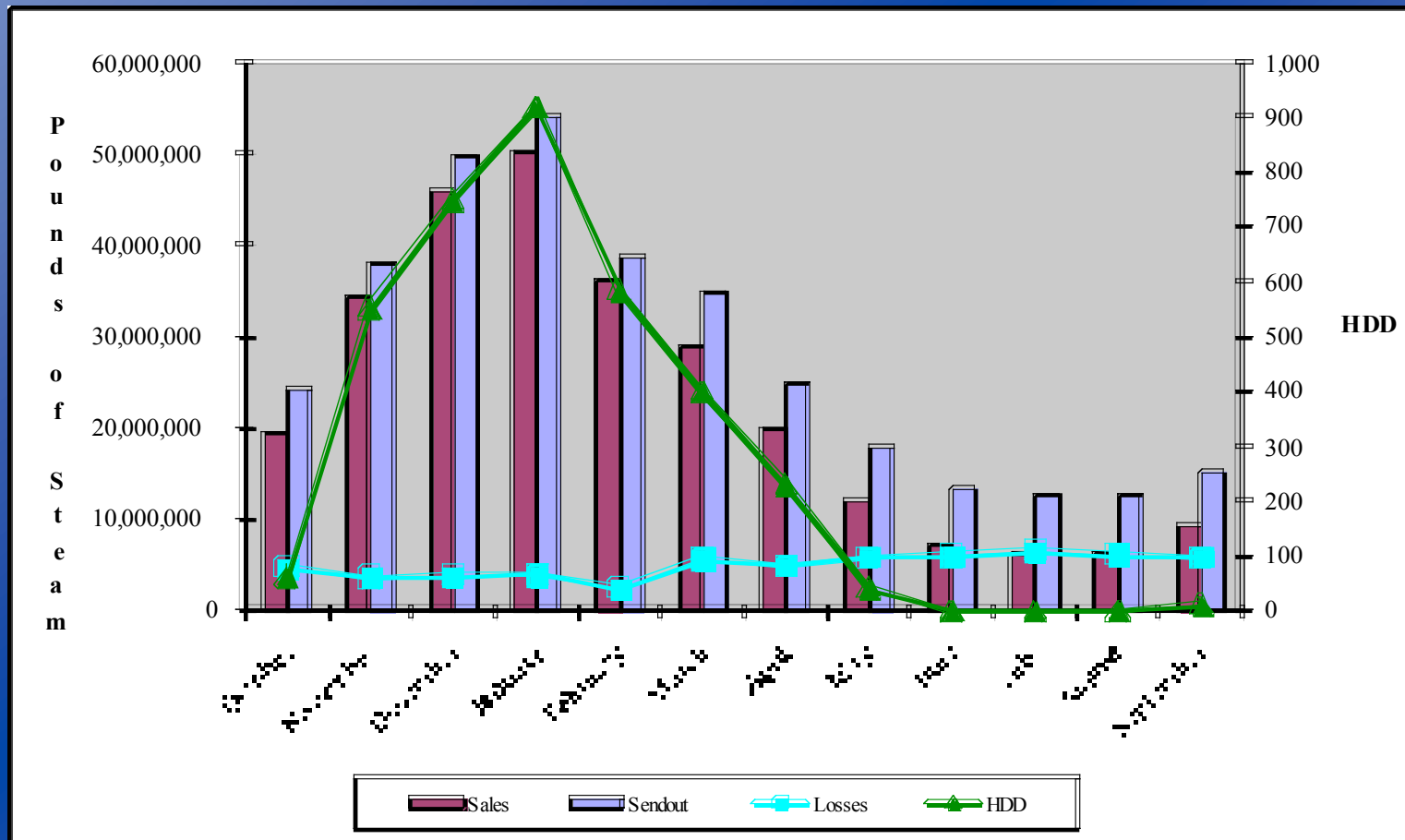
	Steam (\$ millions)			Chilled Water (\$ millions)		
	10/07 -9/08	10/08- 9/09	% Diff.	10/07 -9/08	10/08- 9/09	% Diff.
Private	\$2.350	\$2.197	-6.5%	\$3.884	\$3.564	-8.2%
State	\$2.898	\$2.805	-3.2%	\$3.224	\$3.213	<1%
Metro	\$2.701	\$2.636	-2.4%	\$3.055	\$3.053	<1%
Aggregate	\$7.950	\$7.638	-3.9%	\$10.163	\$9.830	-3.3%

*FY08 MFA = \$2,193,075; FY09 MFA = \$3,217,986 post-True-up; MFA not included in values shown



Metro Nashville DISTRICT ENERGY SYSTEM

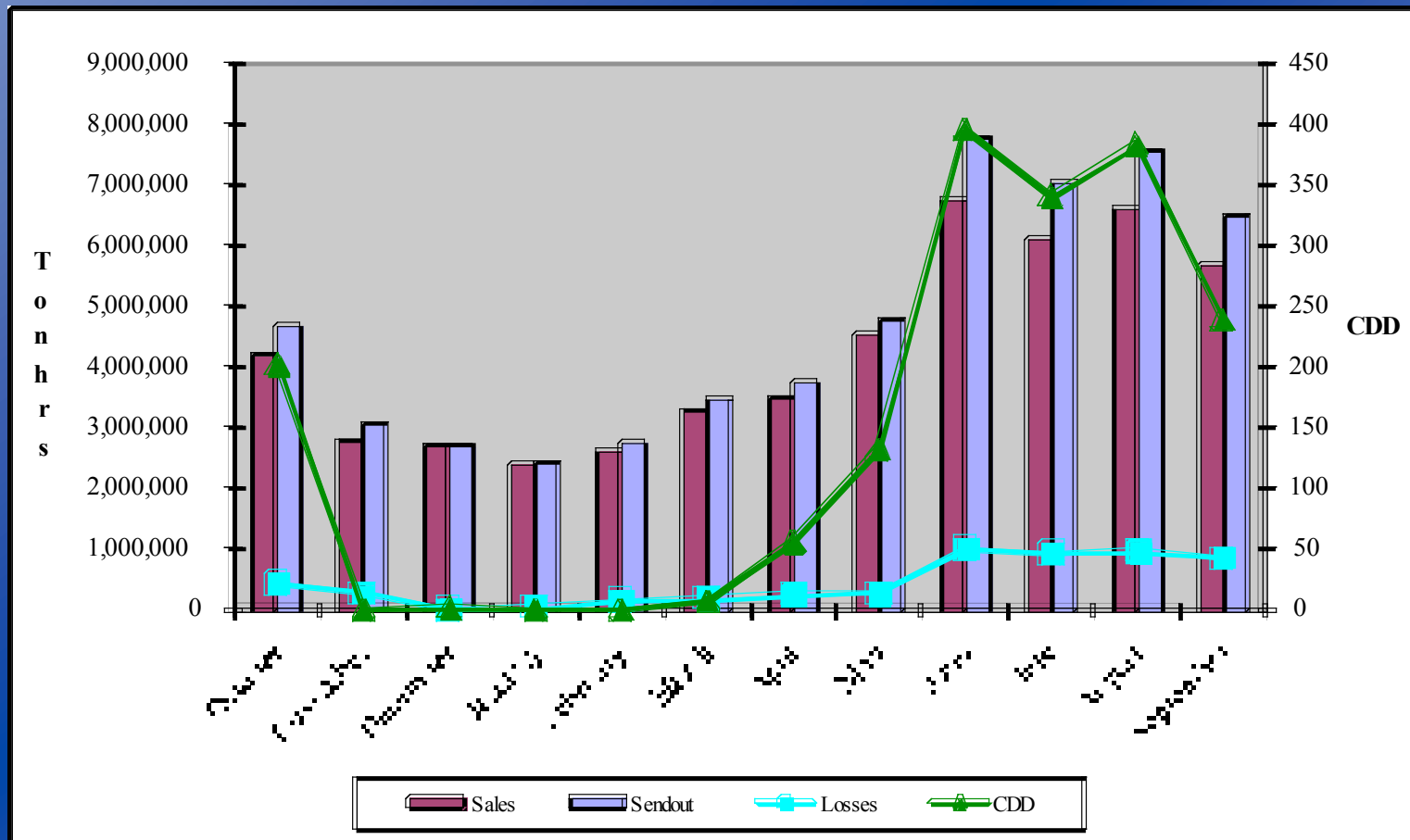
FY10 Operations: Steam





Metro Nashville DISTRICT ENERGY SYSTEM

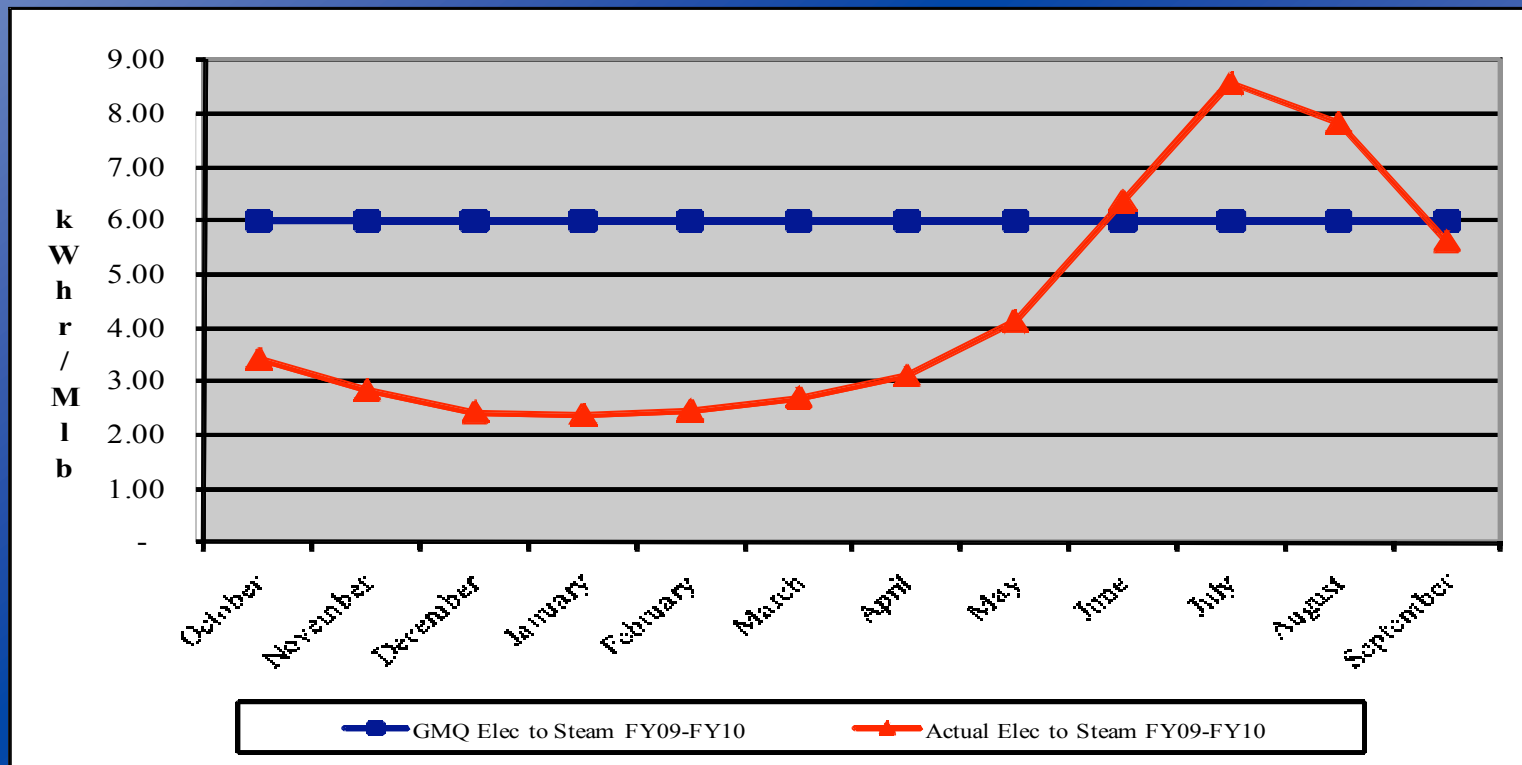
FY10 Operations: Chilled Water





Performance Measurement FY10: Steam

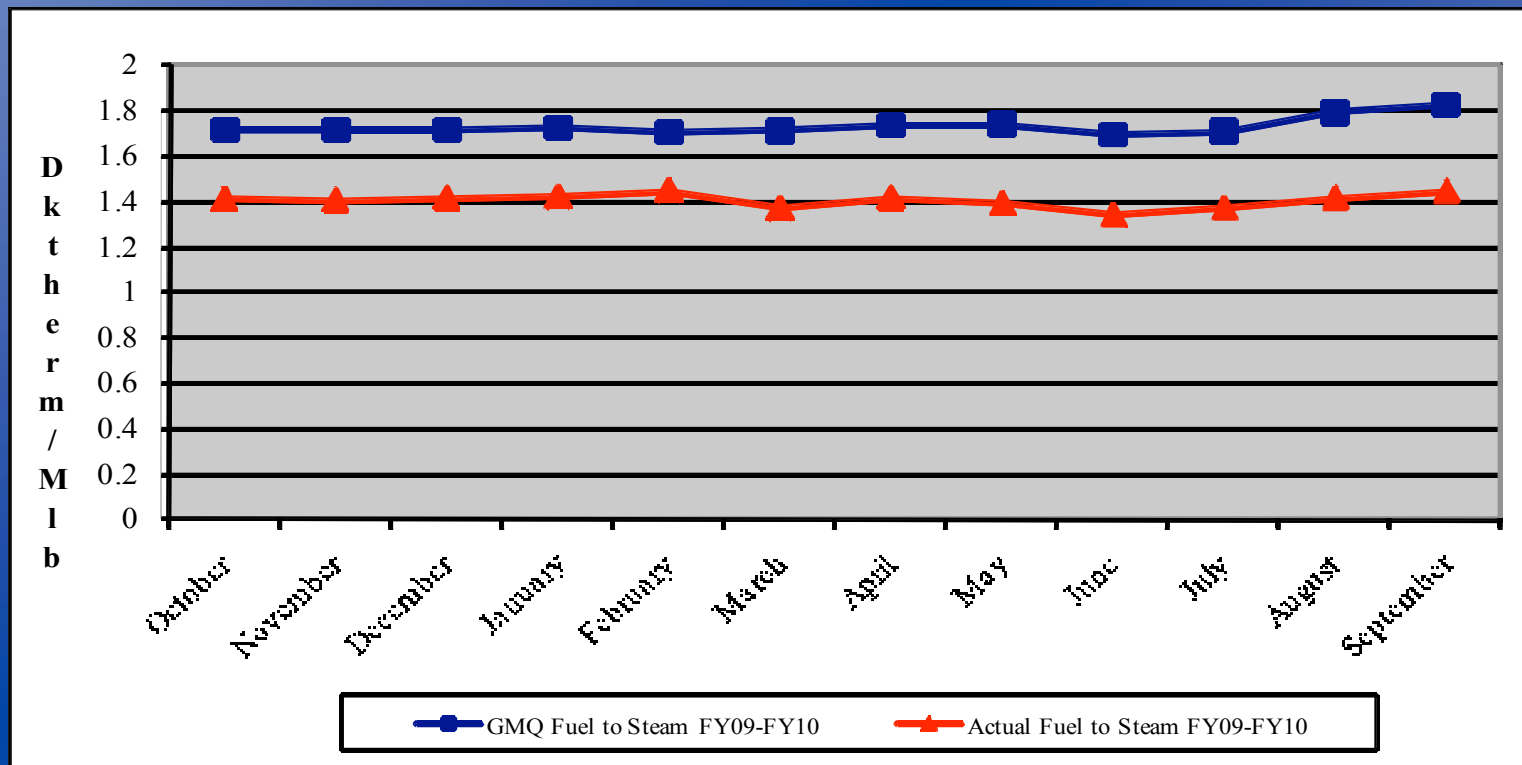
Electric Conversion





Performance Measurement FY10: Steam

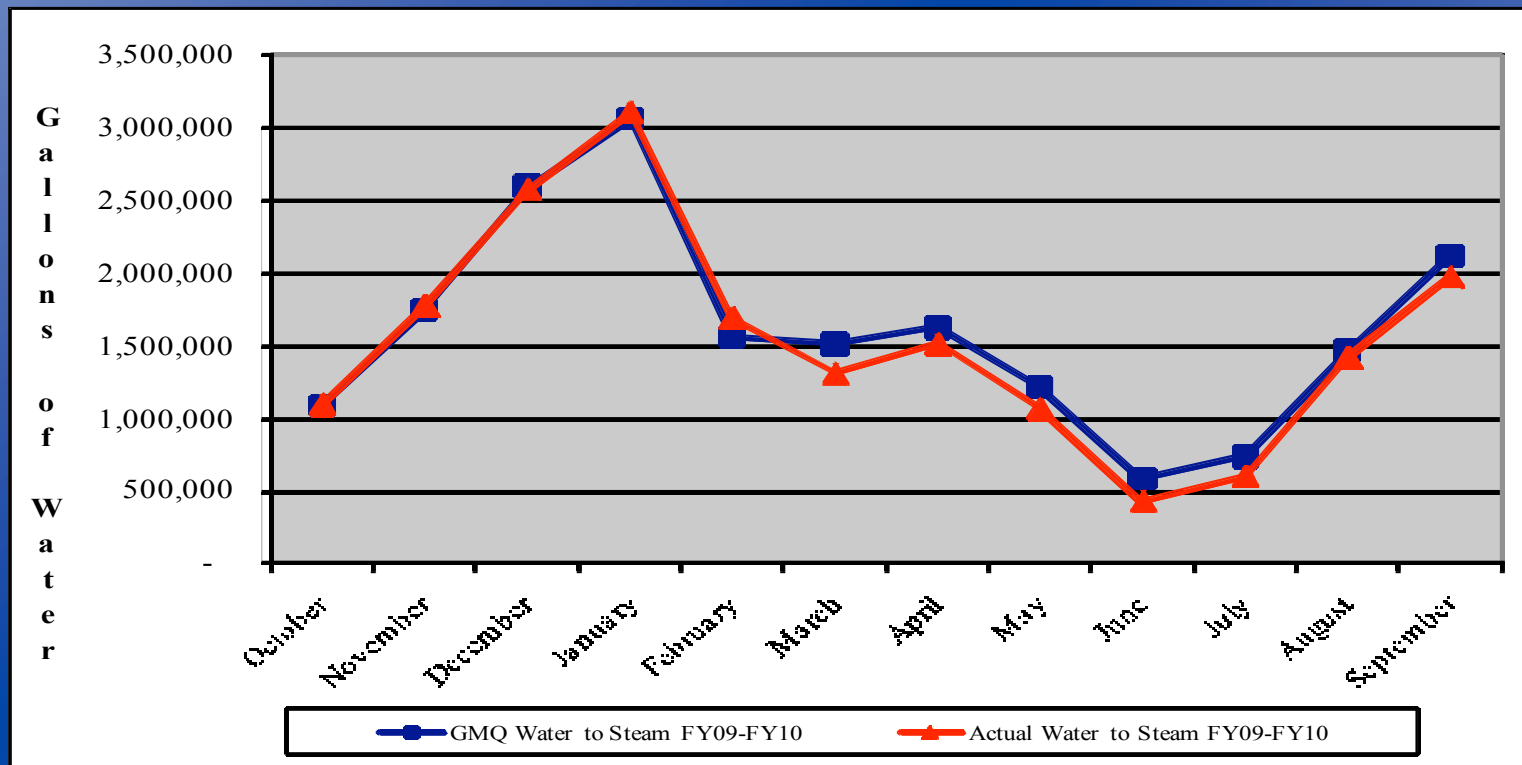
Plant Efficiency ●





Performance Measurement FY10: Steam

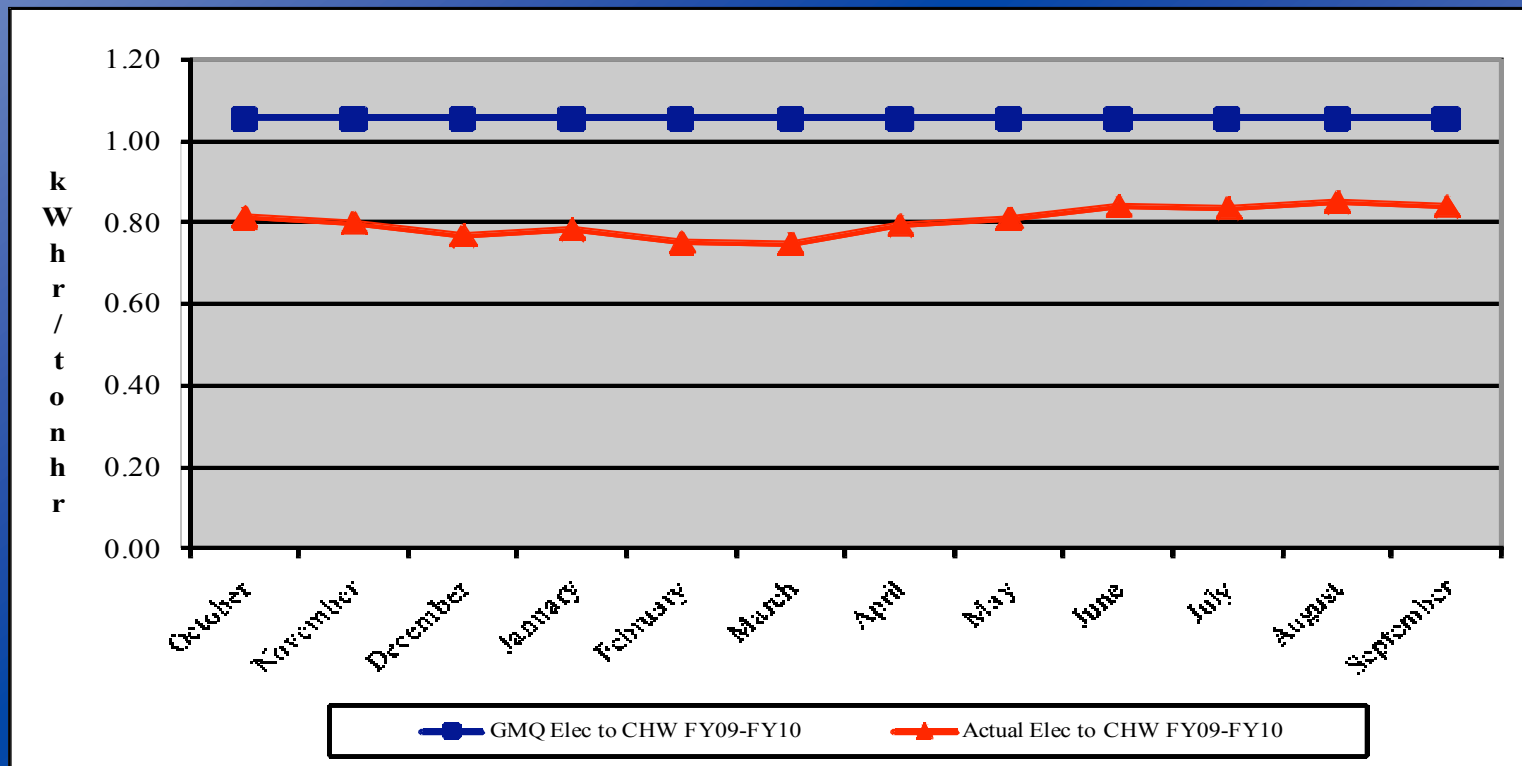
Water Conversion





Performance Measurement FY10: Chilled Water

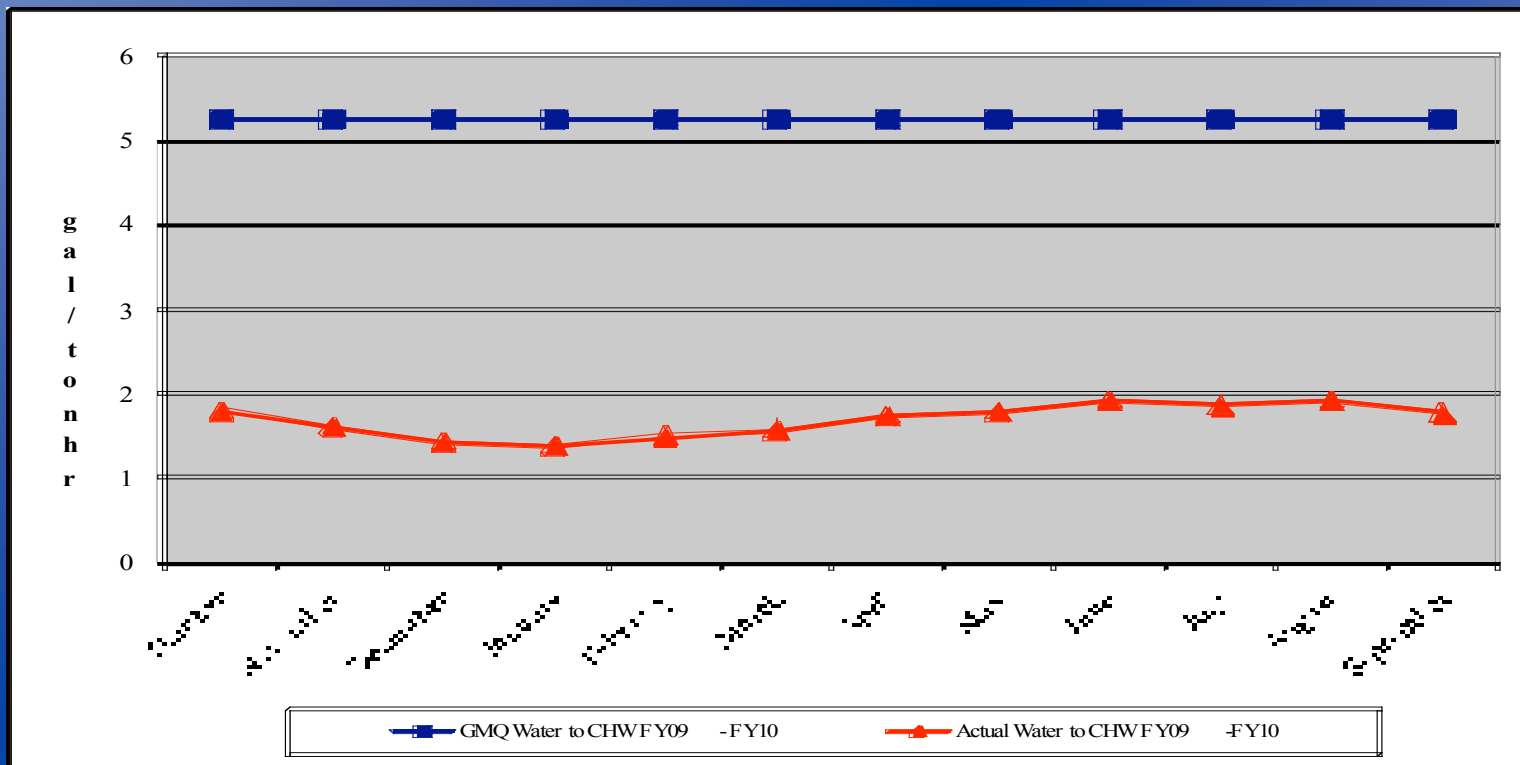
Electric Conversion





Performance Measurement FY10: Chilled Water

Water Conversion ●





Water Treatment

- Steam/Condensate
 - Corrosion ●
 - Iron ●
 - Hardness ●
 - Chlorine/Sulfite ●
- Condensing Water
 - Conductivity ●
 - Biologicals ●
- Chilled Water
 - Hardness ●
 - Corrosion ●
 - Biologicals ●



EGF Walkthrough

Quarterly Inspection Process

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



EDS Walkthrough

Quarterly Inspection Process

- Manhole/Tunnel Housekeeping ●
- Maintenance Items
 - Insulation Repair/Replacement ●
 - Water Infiltration ●
 - Corrosion of Structural Metal Components ●
- Safety Items ●



4. Natural Gas Purchasing

Natural Gas Purchasing Review

**Table 4: FY10 Gas Spending & Budget
Comparison**

**Figure 4: Actual and Projected Gas Cost
Comparison for FY10**



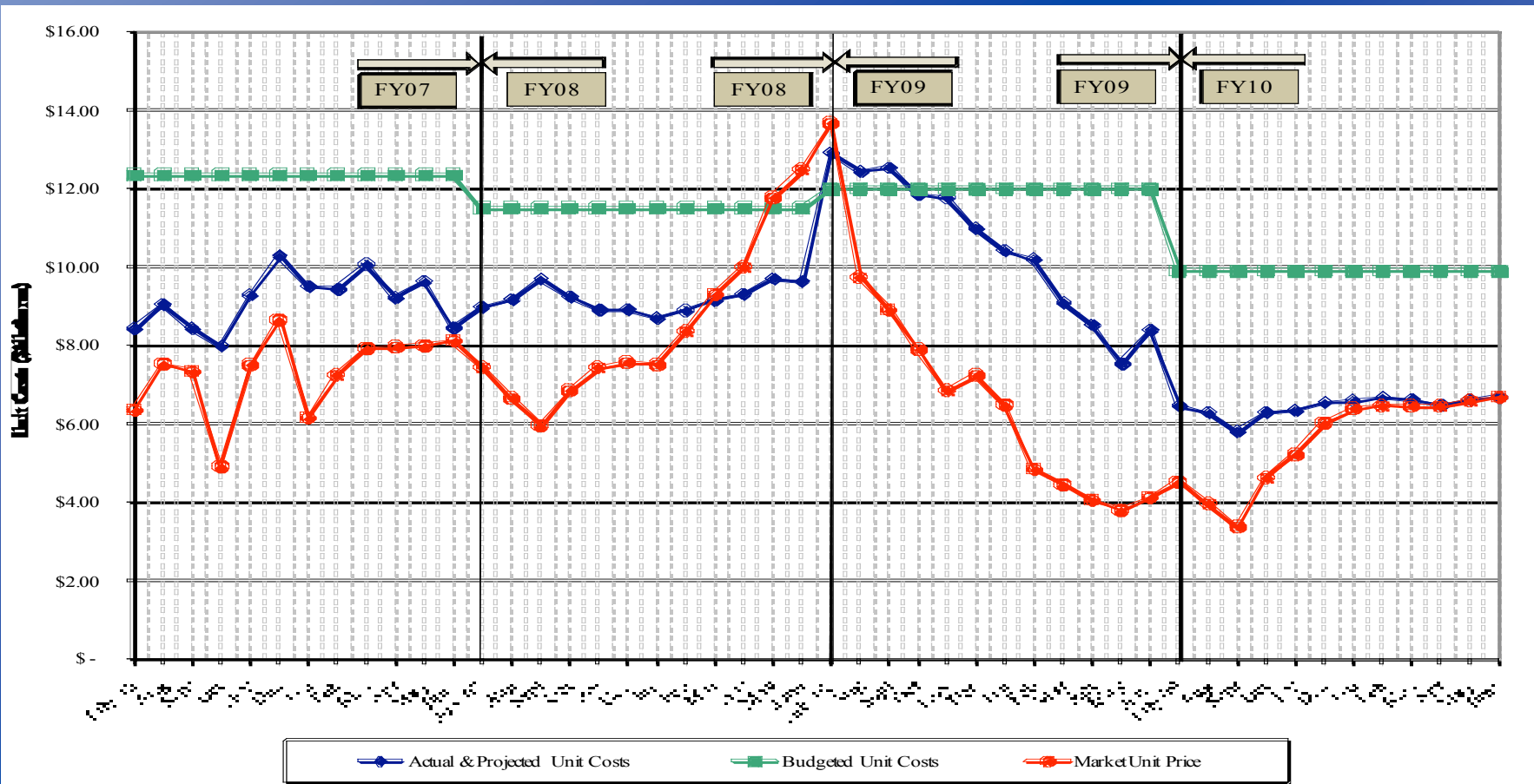
Table 4: FY10 Gas Spending & Budget Comparison

		Actual FY10 To date (Sept 30)	Budget FY10
Steam Sendout (Mlbs)		40,821	39,655
Fuel Use (Dth)	●	57,844	57,500
Plant Eff (Dth/Mlb)	●	1.413	1.450
Total Gas Cost	●	\$356,454	\$564,995
Unit Cost of Fuel (\$/Dth)	●	\$6.162	\$9.826



Metro Nashville DISTRICT ENERGY SYSTEM

Actual and Projected Gas Cost Comparison for FY10





Metro Nashville DISTRICT ENERGY SYSTEM

5. Financial Reports: 1st Qtr FY10

Item	FY10 Budget	Total Expenses to Date	Percent of FY10 Budget
FOC: Basic	\$ 3,976,200	\$ 963,043	24.22%
FOC: 9th Chiller	\$ 37,200	\$ 9,024	24.26%
FOC: Change Order 6A	\$ 73,400	\$ 17,816	24.27%
FOC: Change Order 6B	\$ 64,300	\$ 15,597	24.26%
Chemicals	\$ 161,200	\$ 37,896	23.51%
Engineering	\$ 26,200	\$ 3,801	14.51%
Insurance	\$ 43,700	\$ -	0.00%
Marketing: CEPS Sales Activity	\$ 9,800	\$ -	0.00%
Metro Marketing	\$ 35,000	\$ 5,212	14.89%
Incentive Payments	\$ -	\$ -	n.a.
Project Administration	\$ 24,000	\$ -	0.00%
Metro Incremental Cost	\$ 526,400	\$ 94,387	17.93%
FEA : Steam	\$ -	\$ 14,041	n.a.
FEA : Chilled Water	\$ -	\$ 113,028	n.a.
ARFA	\$ -	\$ 13,987	n.a.
Metro Credit	\$ -	\$ (140,933)	n.a.
Water/Sewer	\$ 689,600	\$ 127,546	18.50%
Natural Gas/Propane	\$ 4,692,900	\$ 355,953	7.58%
Electricity	\$ 5,034,100	\$ 1,264,600	25.12%
EDS Repair & Improvement	\$ 176,500	\$ 35,648	20.20%
EDS Surcharge	\$ 70,600	\$ -	0.00%
Sub-total Operations	\$ 15,641,100	\$ 2,930,645	18.74%
2002 Bonds	\$ 4,362,900	\$ 1,090,698	25.00%
2005 Bonds	\$ 627,600	\$ -	0.00%
FY07 Projects	\$ 227,800	\$ -	0.00%
FY08 Projects	\$ 220,500	\$ -	0.00%
Debt Service Interest Revenue	\$ (123,700)	\$ (154)	0.12%
Oper. Reserve Funding Deposit	\$ -	\$ -	n.a.
Sub-total Debt Service	\$ 5,315,100	\$ 1,090,544	20.52%
Total Expenses	\$ 20,956,200	\$ 4,021,189	19.19%
Customer Revenues	\$ 18,512,100	\$ 3,543,483	19.14%
Total Metro Funding Amount	\$ 2,444,100	\$ 477,706	19.55%



6. FY2009-2010 Budget Status Review

	Spent to End of FY09	FY10 Spending	Balance to Date (09/30/09)
R&I Projects	\$764,130	\$35,648	\$485,062
2005B Bond	\$7,920,090	\$5,604	\$260,807
2007 Bond	\$2,620,771	\$0	\$237,729
2008 Bond	\$1,846,622	\$1,023,574	\$8,304
2010 Bond	\$0	\$6,088	\$2,403,912
Total	\$10,530,842	\$1,070,914	\$3,395,814



7. Capital Projects Review

Active Capital Projects

- DES 041/054: Symphony CND – closed
- DES 044: STM Repair & CND Replacement MH 5 to MH 9 – closed
- DES 0441: Modification of Manhole 9 - closed
- DES 046: Ryman CND – closed
- DES 050: MH Insulation – in construction/ongoing (DES 060 in FY 2010)
- DES 051: Replacement of 4th Avenue Tunnel Condensate Slip Joint - closed
- DES 055: Rebuild of MH “C” – closed
- DES 056: STM Repair & CND Replacement to Citizen’s Plaza – closed
- DES 057: STM & CND Valve Replacement: Phase I & II – closed



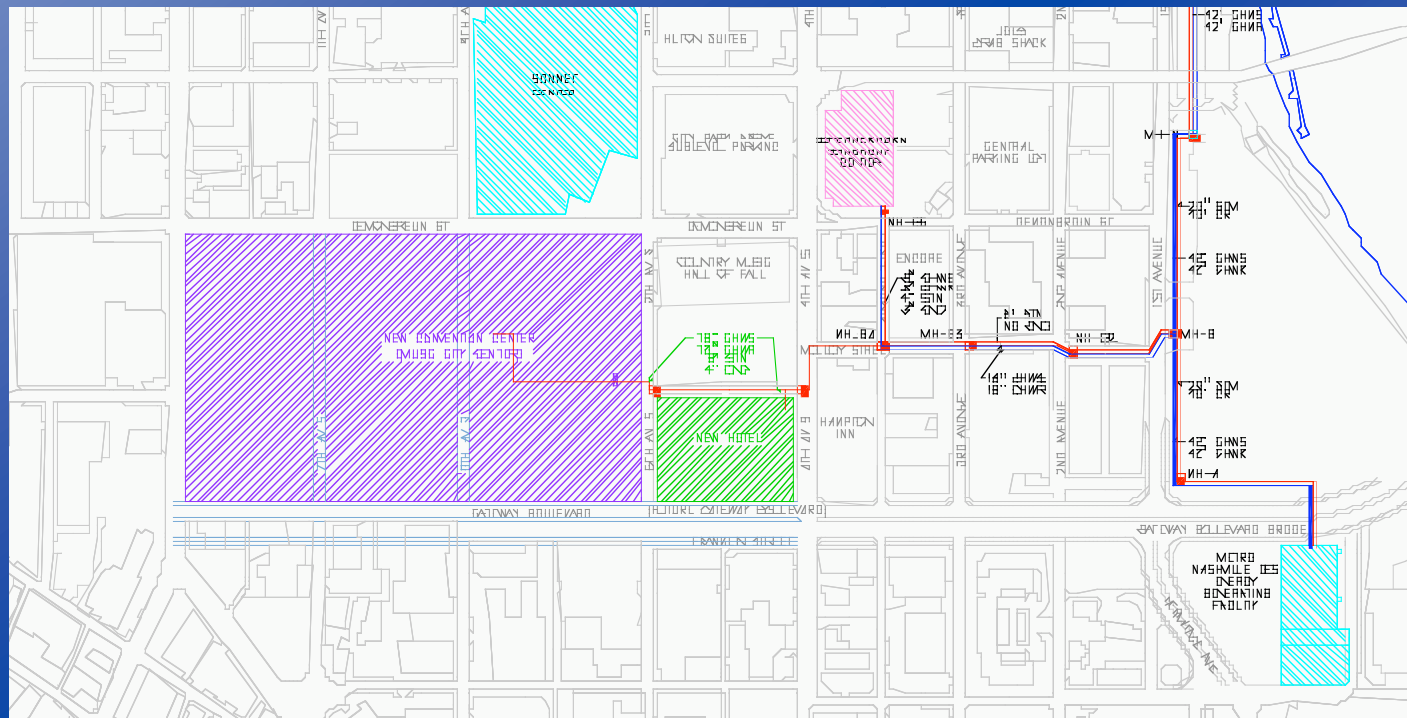
FY 2010 Proposed Projects

- DES 048: Tunnel Lighting Replacement Phase III
- DES 059: CJC Steam & Condensate Line Replacement – in design
- DES 060: MH Insulation – in construction/ongoing
- DES 061: Manhole & Tunnel Steel Corrosion Repair & Prevention
- DES 062: Wildhorse Stm & Cnd Line Replacement – in construction
- DES 063: Sump Pump Installation in MH A, B & M – currently bidding
- DES 067: Tunnel Rock Repair – in design
- DES 068: St Mary's Condensate Tempering
- DES 069: Municipal Auditorium Condensate Tempering
- DES 070: MH 6 to 23 Condensate Line Replacement – in design
- DES 071: Hermitage Hotel Service Modifications
- DES 072: Sheraton Hotel Steam and Condensate Replacement



Metro Nashville DISTRICT ENERGY SYSTEM

Music City Center & New Hotel DES Location



Nashville District Energy



Proposed Music City Center & New Hotel

- Music City Center
 - 3,500 tons
 - 35,000 pph
- New Hotel
 - 1,500 tons
 - 18,000 pph
- Est \$1,500,000 (~55%) Reduction in MFA
- No Impact on Existing Customers
- New Load Approaches EGF Capacity Limit



8. DES Emergency Response Plan

- Metro Business Continuity and Disaster Recovery Plan
- Constellation Energy Emergency Response Plan
- Customer Response Plans



Metro Disaster Recovery Plan

- Communications Between
 - Metro
 - CEPS
 - TEG
 - Customers
- EGF/EDS Functionality
- Relocation of Command
- Continuity of Services
- Priority Customers



CEPS Emergency Response Plan

- Emergency Response
 - Localized and Minor
 - Affecting Service from EGF
 - City-wide
- Communication (CEPS/Metro/TEG/Vendors)
- Damage Assessment
- Temporary Service
- Priority Customers



Customer Response Plans

- Customer HVAC Requirements in an Emergency
- Temporary Service Connections
 - Localized Service Only
 - EGF/EDS Non-functional
- Priority Customers
 - Criminal Justice Center
 - Metro Library
 - AA Birch/Courthouse
 - Hotels and Convention Center
 - State Buildings



Metro Nashville
DISTRICT ENERGY SYSTEM

9. Adjourn