



**Metro Nashville**  
**DISTRICT ENERGY SYSTEM**

*Advisory Board Quarterly Meeting  
Second Quarter FY09*

*Presented to  
District Energy Advisory Board*

*February 19, 2009*



## *Agenda*

1. Call to Order
2. Review & Approval of Previous Meeting Minutes
3. Summary of Performance
4. Natural Gas Purchasing Up-Date
5. Financial Reports – 2<sup>nd</sup> Qtr FY09
6. FY2009-2010 Budget Preparation Requirements
7. Capital Projects Review
8. Other Board Member Items
9. Adjourn



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*1. Call to Order*

*2. Review and Approval of Previous Meeting Minutes*



### *3. Summary of Performance*

Contractor (CNDE) is in compliance with their contractual obligations for FY09.

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



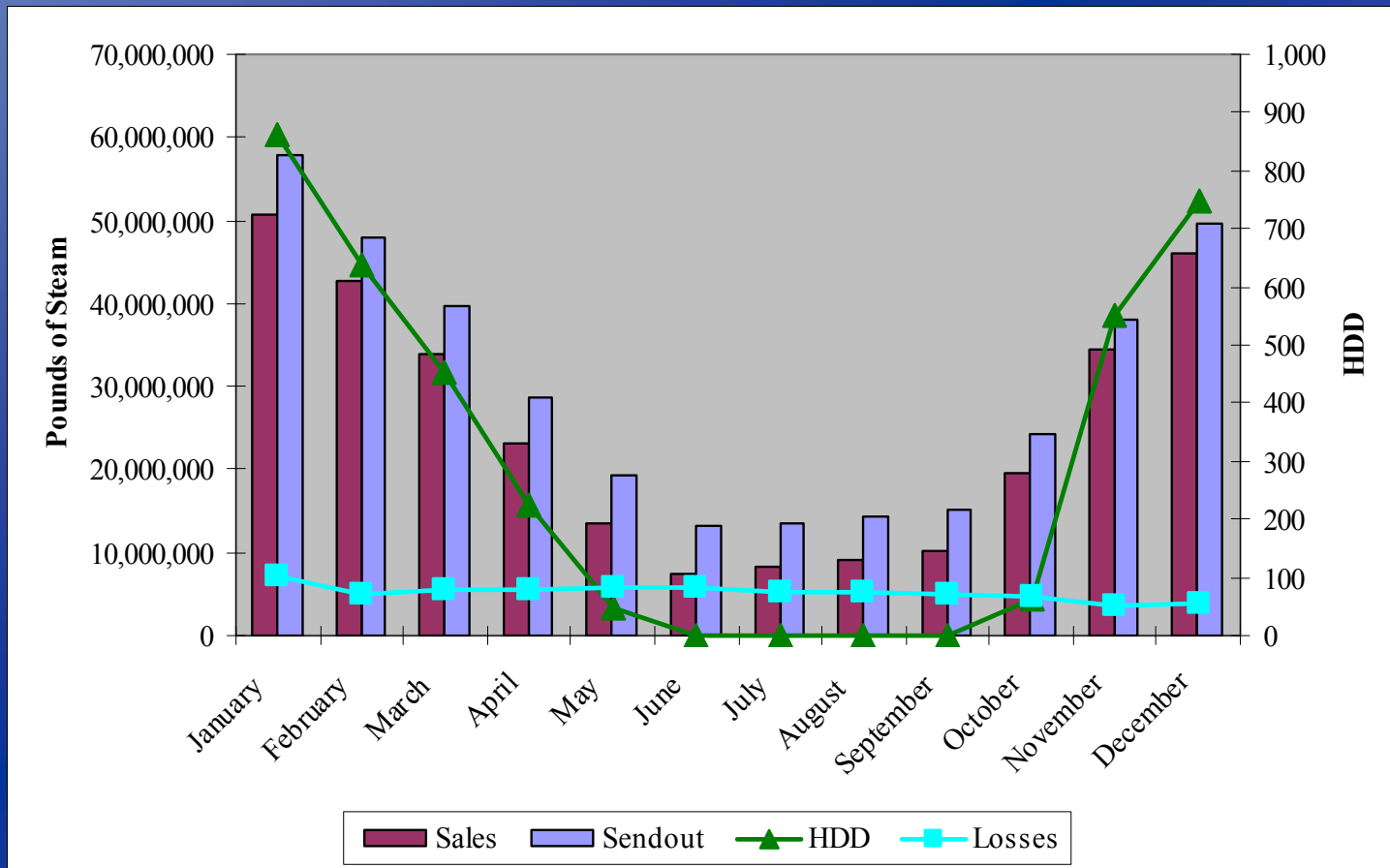
*Summary Table 3: Customer Cost Comparison for the Previous 12 Months*

	Steam (\$ millions)			Chilled Water (\$ millions)		
	1/07 – 12/07	1/08- 12/08	% Diff.	1/07- 12/07	1/08- 12/08	% Diff.
Private	\$2.377	\$2.439	2.6%	\$3.921	\$3.827	-2.4%
State	\$2.994	\$3.100	3.5%	\$3.169	\$3.257	2.8%
Metro	\$3.269	\$3.317	1.5%	\$4.609	\$4.590	-0.4%
New Customers	\$1.477	\$1.590	7.7%	\$3.118	\$3.111	-0.2%
Aggregate	\$8.639	\$8.856	2.5%	\$11.700	\$11.674	-0.2%

Includes MFA allocated to Metro Buildings (post-True-up)

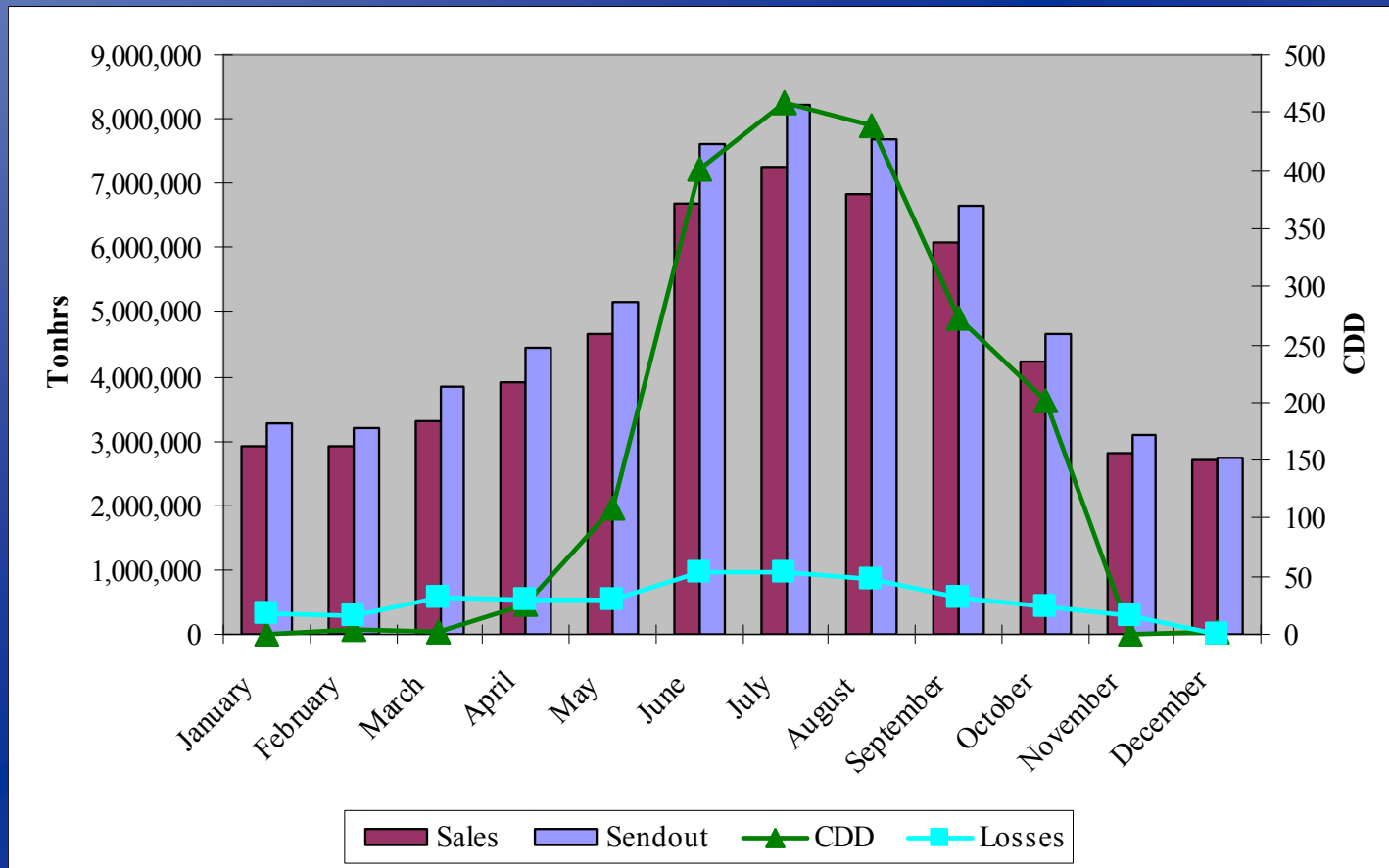


# FY09 Operations: Steam



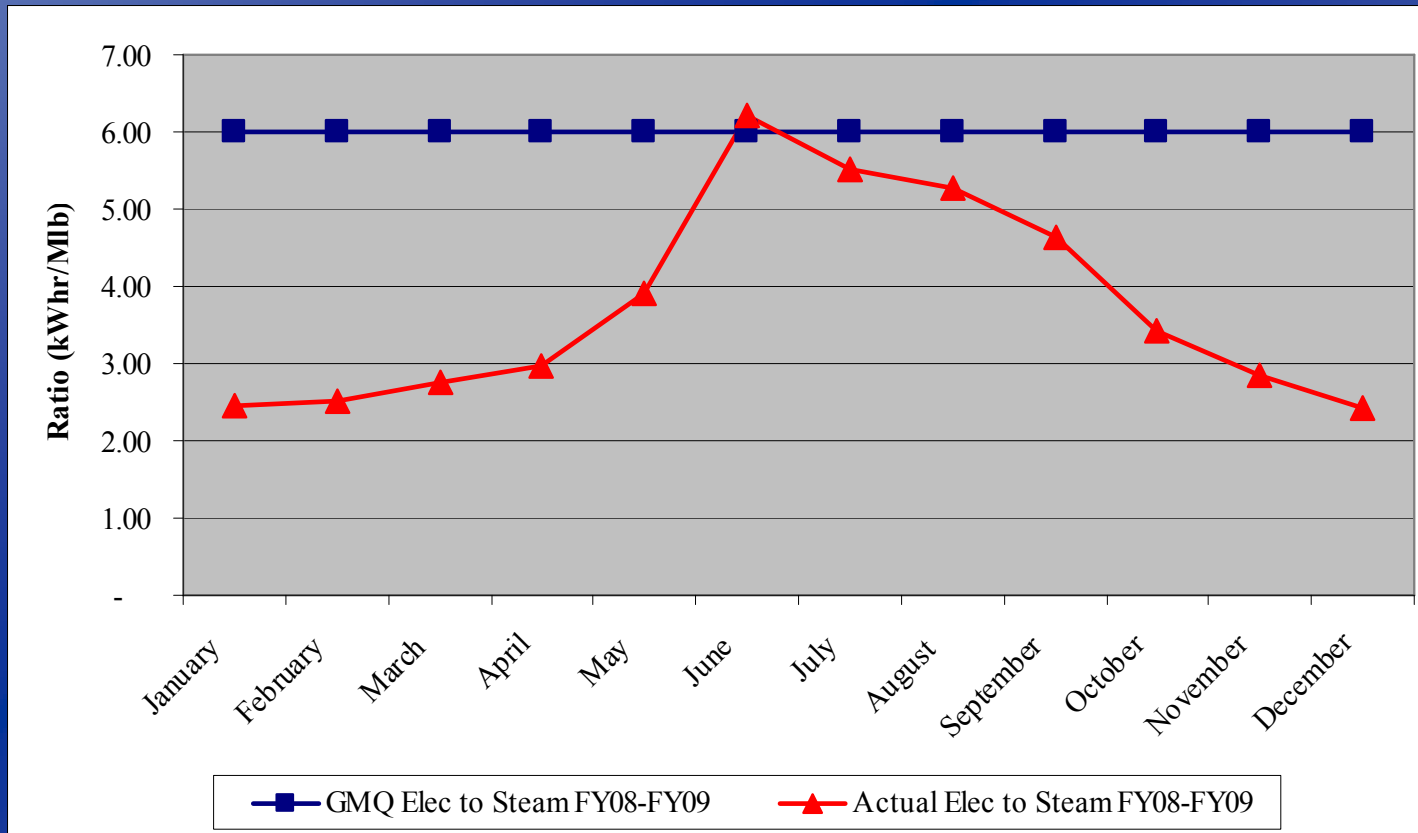


# FY09 Operations: Chilled Water





## Performance Measurement FY09: Steam Electric Conversion ●

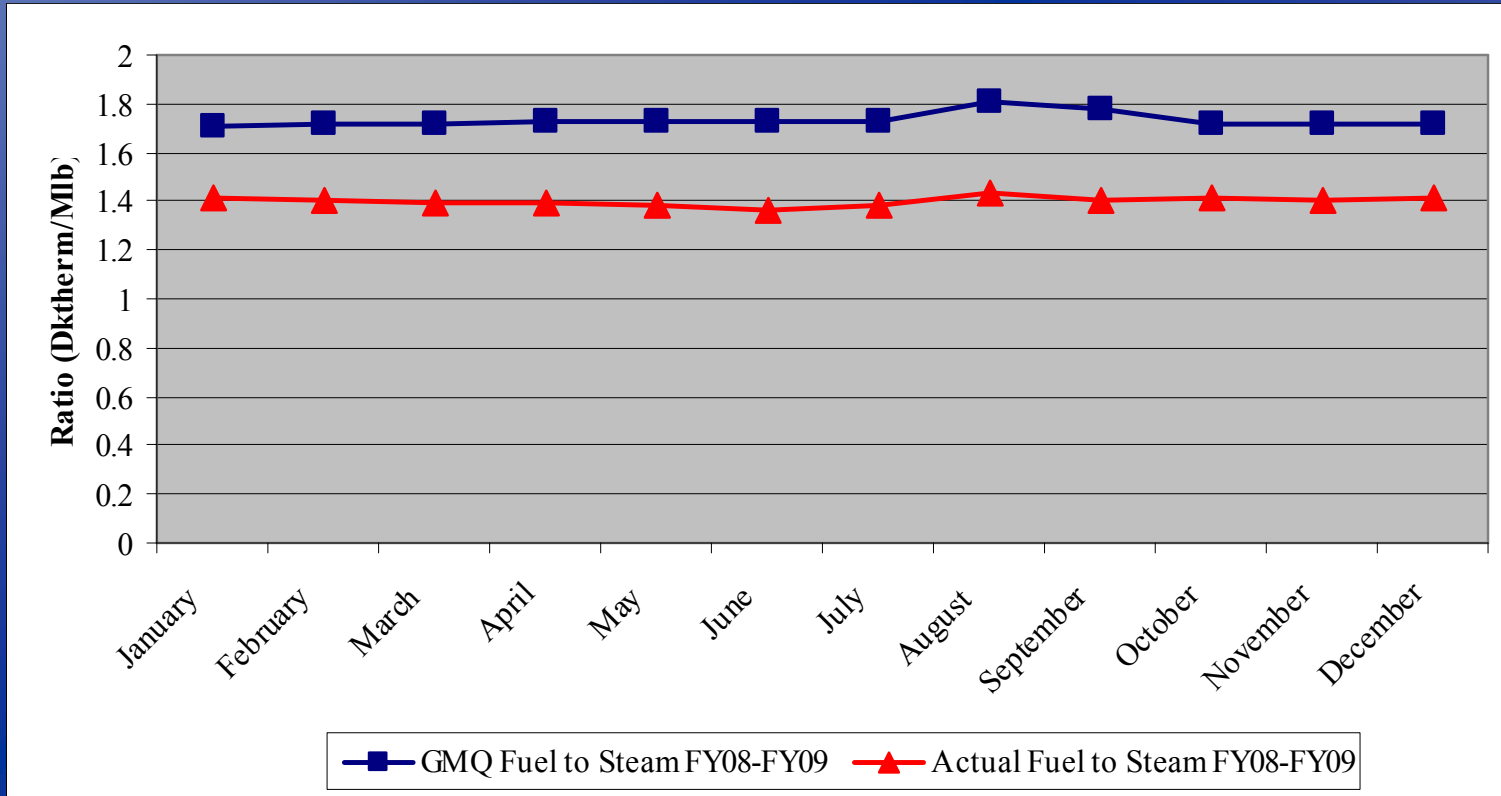






# Performance Measurement FY09: Steam

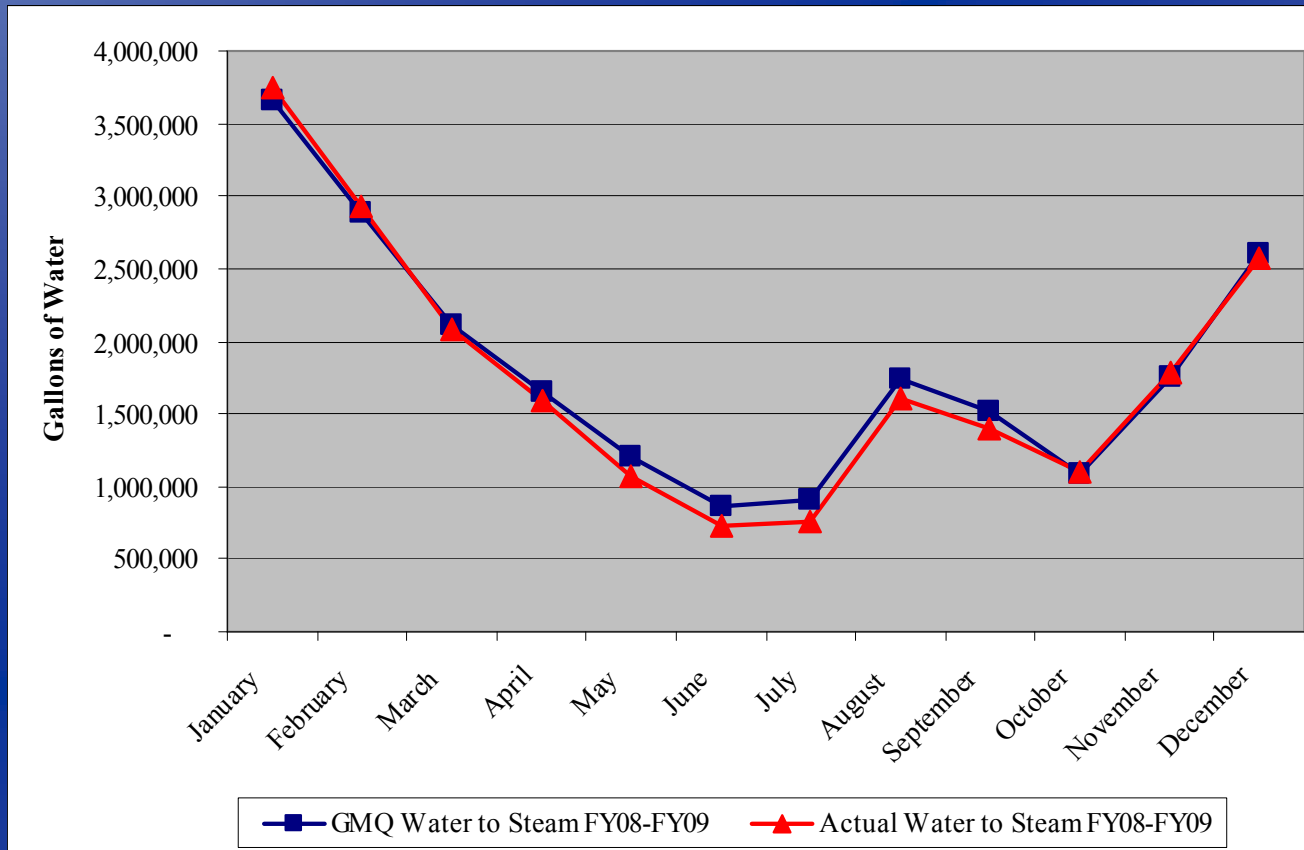
## Plant Efficiency ●





# Performance Measurement FY09: Steam

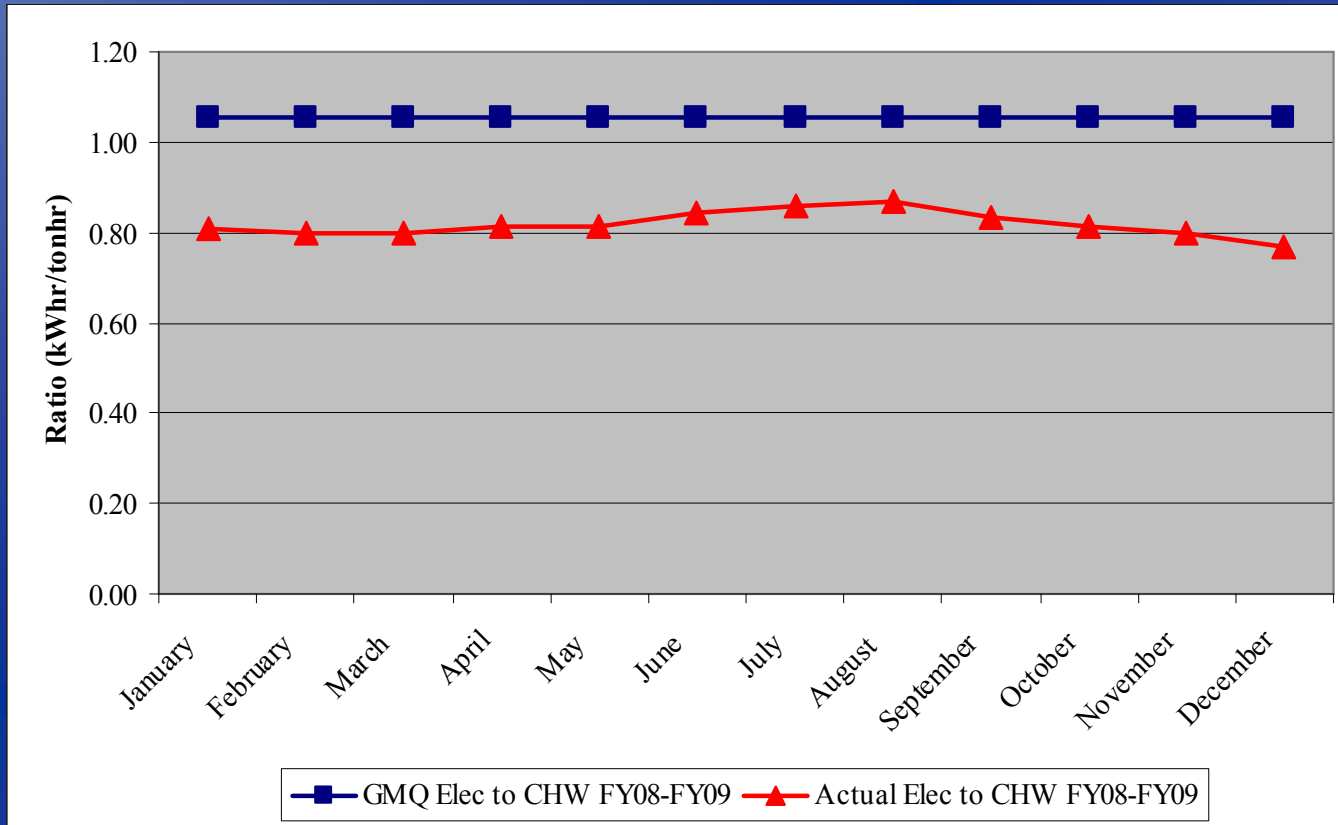
## Water Conversion ●





# Performance Measurement FY09: Chilled Water

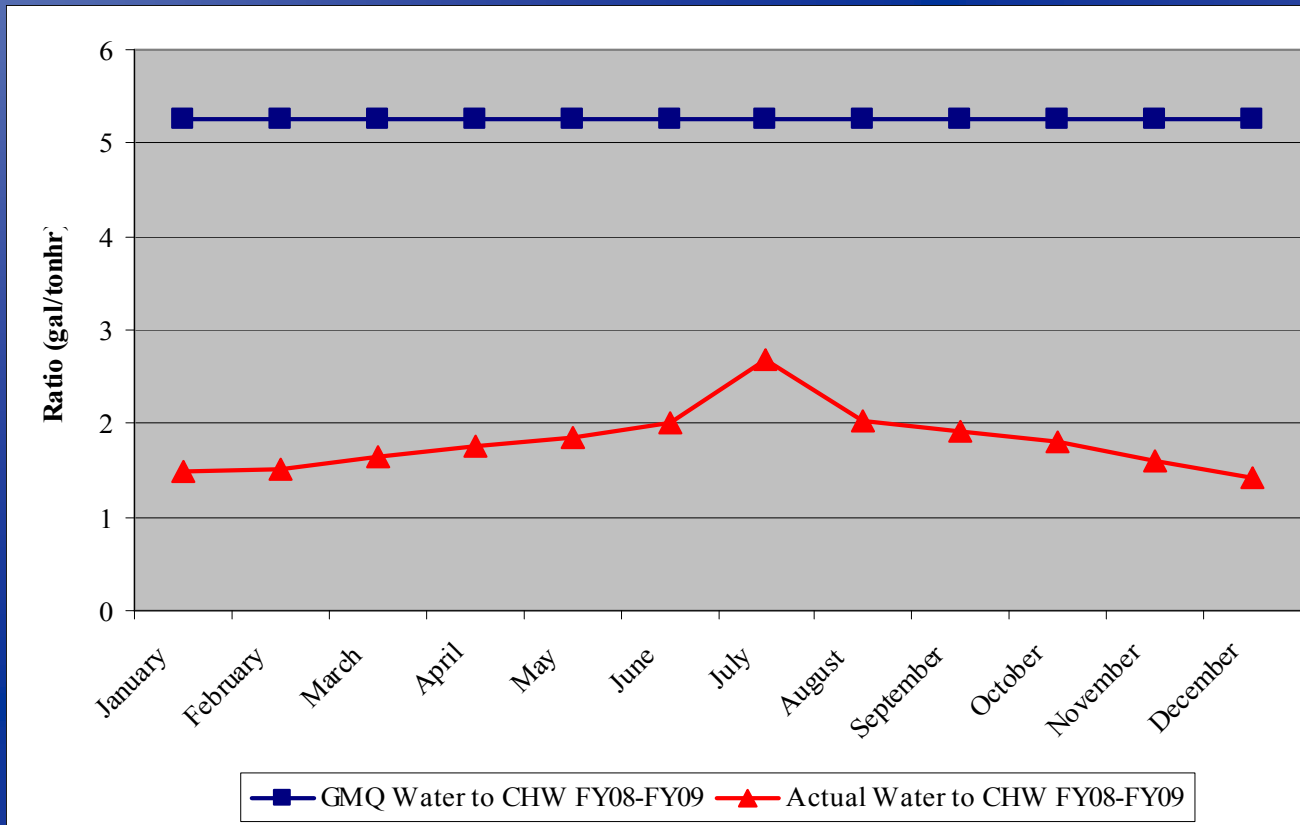
## Electric Conversion ●





# Performance Measurement FY09: 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 Update*

### **Natural Gas Purchasing Review**

#### **Table 4: FY09 Gas Spending & Budget Comparison**

**Actual Gas Costs to Date**

**Projected Gas Costs for FY09+**





*Table 4: FY09 Gas Spending & Budget Comparison*

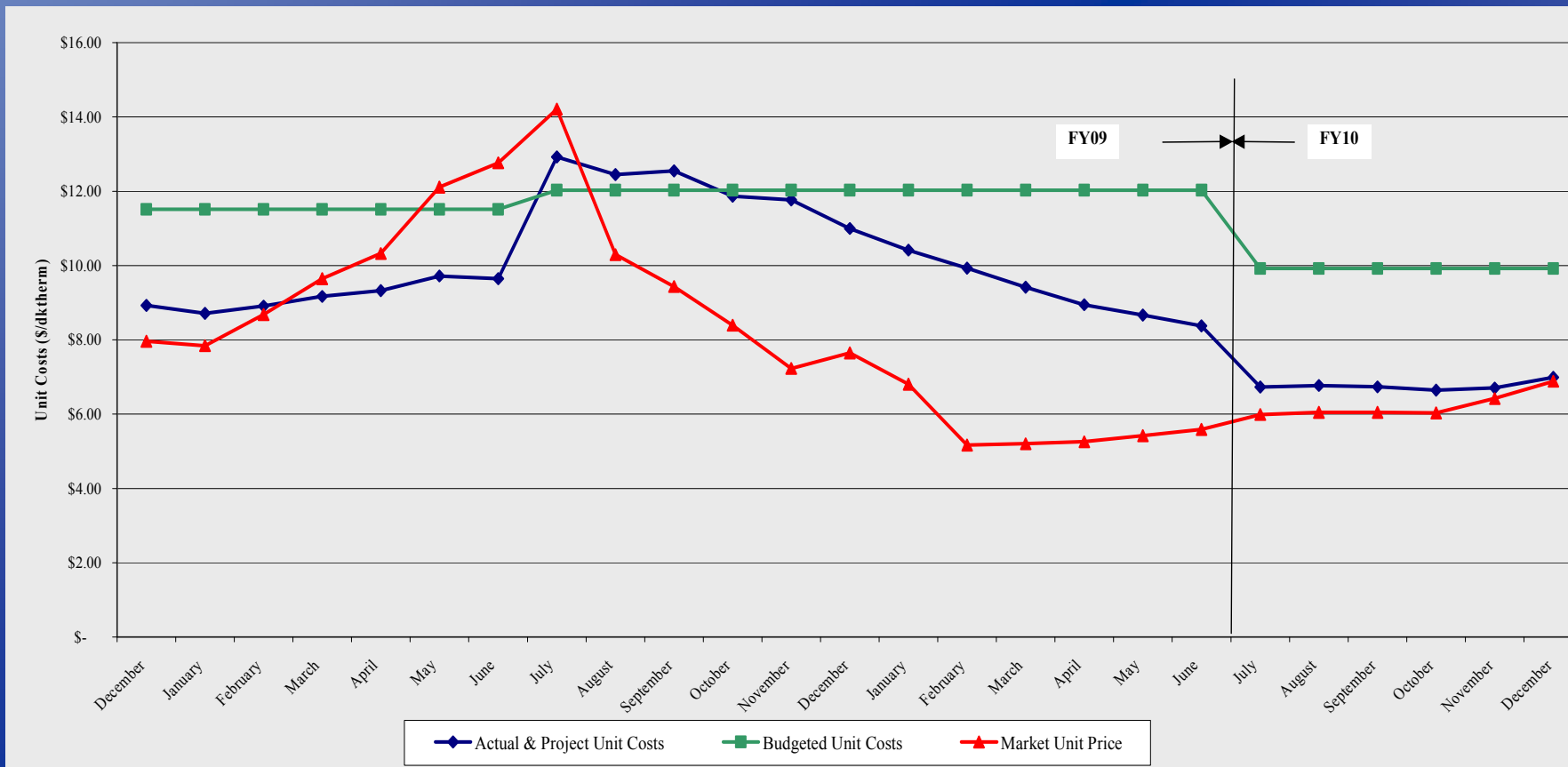
		<b>Actual FY09 To date (Dec 31)</b>	<b>Budget FY09</b>
Steam Sendout (Mlbs)		155,210	154,234
Fuel Use (Dth)	●	219,070	223,794
Plant Eff (Dth/Mlb)	●	1.404	1.451
Total Gas Cost	●	\$2,615,687	\$2,692,242
Unit Cost of Fuel (\$/Dth)	●	\$11.94	\$12.030



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## Projected Gas Cost Comparison for FY09





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# 5. Financial Reports: 2<sup>nd</sup> Qtr FY09

Item	FY09 Budget	Total Expenses to Date	Percent of FY09 Budget
FOC: Basic	\$ 3,852,170	\$ 1,926,085	50.00%
FOC: 9th Chiller	\$ 36,100	\$ 18,048	49.99%
FOC: Change Order 6A	\$ 71,260	\$ 35,631	50.00%
FOC: Change Order 6B	\$ 62,390	\$ 31,194	50.00%
Chemicals	\$ 156,510	\$ 84,758	54.15%
Engineering	\$ 40,000	\$ 8,763	21.91%
Insurance	\$ 42,440	\$ 29,722	70.03%
Marketing: CEPS Sales Activity	\$ 27,000	\$ 2,006	7.43%
Metro Marketing	\$ 52,890	\$ -	0.00%
Incentive Payments	\$ 30,150	\$ 7,409	24.57%
Project Administration	\$ 22,090	\$ -	0.00%
Metro Incremental Cost	\$ 585,420	\$ 171,177	29.24%
FEA: Steam	\$ -	\$ 110,303	n.a.
FEA: Chilled Water	\$ -	\$ 202,207	n.a.
ARFA	\$ -	\$ 27,973	n.a.
Metro Credit	\$ -	\$ (233,308)	n.a.
Water/Sewer	\$ 681,600	\$ 206,784	30.34%
Natural Gas/Propane	\$ 6,570,400	\$ 2,615,816	39.81%
Electricity	\$ 4,437,300	\$ 2,337,836	52.69%
EDS Repair & Improvement	\$ 171,430	\$ 23,940	13.96%
EDS Surcharge	\$ 68,460	\$ -	0.00%
<b>Sub-total Operations</b>	<b>\$ 16,907,610</b>	<b>\$ 7,606,343</b>	<b>44.99%</b>
2002 Bonds	\$ 4,361,770	\$ 2,180,964	50.00%
2005 Bonds	\$ 631,590	\$ 347,868	55.08%
FY07 Projects	\$ 227,800	\$ -	0.00%
FY08 Projects	\$ 220,500	\$ -	0.00%
Debt Service Interest Revenue	\$ (72,300)	\$ (82,451)	114.04%
Oper. Reserve Funding Deposit	\$ 97,400	\$ 48,870	50.17%
<b>Sub-total Debt Service</b>	<b>\$ 5,466,760</b>	<b>\$ 2,495,250</b>	<b>45.64%</b>
<b>Total Expenses</b>	<b>\$ 22,374,370</b>	<b>\$ 10,101,594</b>	<b>45.15%</b>
<b>Customer Revenues</b>	<b>\$ 19,768,660</b>	<b>\$ 9,051,278</b>	<b>45.79%</b>
<b>Total Metro Funding Amount</b>	<b>\$ 2,605,710</b>	<b>\$ 1,050,316</b>	<b>40.31%</b>



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## *6. FY2009-2010 Budget Preparation Requirements*

### **Table 6. FY2010 Budget Summary & Comparison**



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### Table 6. FY10 Budget Summary & Comparison

Item	FY08 Actual Cost	FY09 Budget	FY10 Budget	Percent Change from FY08	Percent Change from FY09
FOC: Basic + C/O 6C	\$ 3,739,971	\$ 3,852,200	\$ 3,976,200	6.32%	3.22%
FOC: 9th Chiller	\$ 35,044	\$ 36,100	\$ 37,200	6.15%	3.05%
FOC: Change Order 6A	\$ 69,187	\$ 71,300	\$ 73,400	6.09%	2.95%
FOC: Change Order 6B	\$ 60,571	\$ 62,400	\$ 64,300	6.16%	3.04%
Chemicals	\$ 187,192	\$ 156,500	\$ 161,200	-13.89%	3.00%
Engineering	\$ 21,160	\$ 40,000	\$ 26,200	23.82%	-34.50%
Insurance	\$ 29,850	\$ 42,400	\$ 43,700	46.40%	3.07%
Marketing: CEPS Sales Activity	\$ -	\$ 27,000	\$ 9,800	n.a.	-63.70%
Metro Marketing	\$ 33,027	\$ 52,900	\$ 35,000	5.98%	-33.84%
Incentive Payments	\$ 27,801	\$ 30,100	\$ -	-100.00%	-100.00%
Project Administration	\$ -	\$ 24,200	\$ 24,000	n.a.	-0.83%
Metro Incremental Cost	\$ 505,605	\$ 568,000	\$ 544,000	7.59%	-4.23%
Water/Sewer	\$ 469,390	\$ 681,600	\$ 765,700	63.13%	12.34%
Natural Gas/Propane	\$ 4,854,021	\$ 6,574,800	\$ 4,849,300	-0.10%	-26.24%
Electricity	\$ 4,014,589	\$ 4,437,300	\$ 5,889,300	46.70%	32.72%
EDS Repair & Improvement	\$ 161,709	\$ 171,400	\$ 176,500	9.15%	2.98%
EDS Surcharge	\$ -	\$ 68,500	\$ 70,600	n.a.	3.07%
<b>Sub-total Operations</b>	<b>\$ 14,209,117</b>	<b>\$ 16,896,700</b>	<b>\$ 16,746,400</b>	<b>17.86%</b>	<b>-0.89%</b>
2002 Bonds	\$ 4,362,377	\$ 4,361,800	\$ 4,362,900	0.01%	0.03%
2005 Bonds	\$ 629,837	\$ 631,600	\$ 627,600	-0.36%	-0.63%
FY07 Projects	\$ 227,800	\$ 227,800	\$ 227,800	0.00%	0.00%
FY08 Projects	\$ -	\$ 220,500	\$ 220,500	n.a.	0.00%
Debt Service Interest Revenue	\$ -	\$ (72,300)	\$ (123,700)	n.a.	71.09%
Oper. Reserve Funding Deposit	\$ 190,961	\$ 97,300	\$ 126,000	-34.02%	29.50%
<b>Sub-total Debt Service</b>	<b>\$ 5,410,975</b>	<b>\$ 5,466,700</b>	<b>\$ 5,441,100</b>	<b>0.56%</b>	<b>-0.47%</b>
<b>Total Expenses</b>	<b>\$ 19,620,092</b>	<b>\$ 22,363,400</b>	<b>\$ 22,187,500</b>	<b>13.09%</b>	<b>-0.79%</b>
<b>Customer Revenues</b>	<b>\$ 17,953,792</b>	<b>\$ 20,091,900</b>	<b>\$ 19,643,300</b>	<b>9.41%</b>	<b>-2.23%</b>
<b>Project Admin. Revenue</b>	<b>\$ -</b>	<b>\$ 26,400</b>	<b>\$ 24,000</b>	<b>n.a.</b>	<b>-9.09%</b>
<b>* Additional Revenue Required</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 499,610</b>	<b>n.a.</b>	<b>n.a.</b>
<b>Total Metro Funding Amount</b>	<b>\$ 2,193,075</b>	<b>\$ 2,245,100</b>	<b>\$ 2,020,590</b>	<b>-7.86%</b>	<b>-10.00%</b>

\* Supplemental Funds required to meet OMB's MFA reduction target



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## *7. Capital Projects Review*

### **Financial Summary**

### **Table 7: Capital Projects Summary**

### **Active Project Status**



*Table 7: Capital Project Summary (12/31/08)*

	Spent to End of FY08	FY09 Spending	Balance to Date (12/31/08)
2002A Bond	\$3,680,667	\$47,036	\$0
R&I Projects	\$626,555	\$23,940	\$452,626
2005B Bond	\$7,655,347	\$14,922	\$516,232
2007 Bond	\$2,620,771	\$0	\$237,729
2008 Bond	\$87,758	\$77,099	\$2,578,829
<b>Total</b>	<b>\$14,671,098</b>	<b>\$162,997</b>	<b>\$3,785,416</b>



## *Active Project Status*

- DES 036: 4<sup>th</sup> Ave Tunnel Fan (R&I) - in closeout
- DES 041/054: Symphony CND – in closeout
- DES 044: STM Repair & CND Replacement MH 5 to MH 9 – in construction
- DES 045: MH 6 to MH 23 CND Replacement – in closeout
- DES 046: Ryman CND – in design
- DES 050: MH Insulation – in construction/ongoing
- DES 052: Wildhorse CND Tempering – in closeout
- DES 055: Rebuild of MH “C” – in closeout
- DES 056: STM Repair & CND Replacement to Citizen’s Plaza – in construction
- DES 057: STM & CND Valve Replacement: Phase I – in construction





## *Return on Investment*

- Capital Project ROI
  - Boiler O<sub>2</sub> Trim
  - Power Factor Correction Capacitor
  - Condensate Return
  - New Customers
  - MWS Effluent for CT Make-up
- Funding



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*8. Other Board Member Items*

*9. Adjourn*