

## **Commission Directives**

On April 12, 2006 The Gainesville City Commission directed staff to:

*“1. Include the total Resource Cost test as a consideration to pursue all cost effective and feasible demand side measures including demand response, energy efficiency, load management and innovative rate design options. Ensure that the needs of low income customers are addressed in demand side management programs.*

*2. Have GRU staff conduct a thorough examination of all DSM options and present a plan to the commission to develop and implement all cost effective DSM and demand response measures...”*

On July 25, 2006 The Gainesville City Commission authorized the General Manager to:

*“implement the proposed Conservation Plan , with the discretion to amend programs, and to provide quarterly reports to the Commission.”*

This report provides detailed information regarding year to date results – information that staff uses to monitor progress toward program targets and ultimately the overall energy efficiency goal.

### **Year to Date Results**

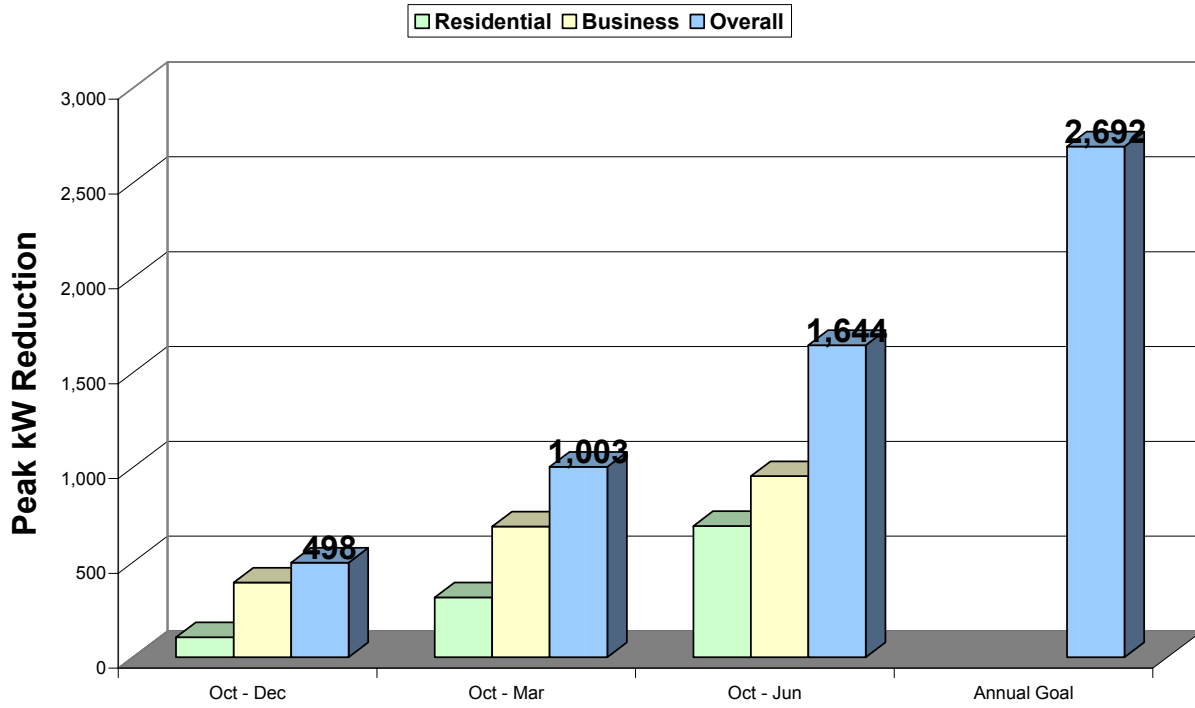
The energy efficiency plan resulted in 1,644.3 kW of demand (peak) savings and 11,710.4 MWh of energy (total usage) savings through the third quarter of FY07, enough energy to power 973 homes for a year. This represents substantial progress toward the first year goal of 2,692 kW and 13,652 MWh.

In addition to the reduction results, staff is also monitoring the cost effectiveness of programs. Measures representing the cost effectiveness of overall programs and individual programs are presented in Tables II and IV of this report. While individual programs help us reach our ultimate energy and demand savings goals, it is the outcome, or the total energy and demand savings that most clearly demonstrate success.

In the third quarter, staff continued to build upon previous success and continued working to increase awareness and strengthen existing relationships necessary for achieving long term reduction goals. Due to these efforts the third quarter target for energy savings was exceeded by 25 percent and 91 percent of the demand savings target was achieved. Overall, 61 percent of the annual demand goal and 85 percent of the annual energy goal were achieved through the third quarter of FY 07, Figures 1 & 2.

### Figure 1

## Annual Demand Reduction



### Figure 2

## Annual Energy Reduction

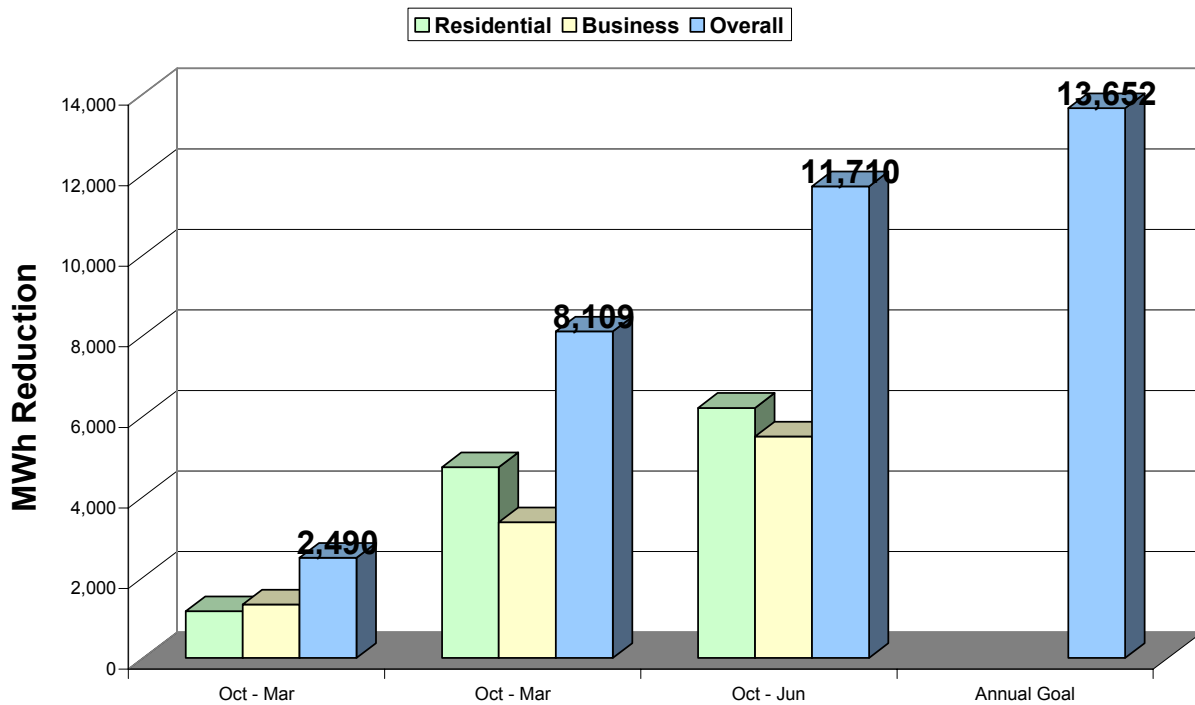


Table I below shows the breakdown of reductions by residential and business programs, as well as the overall total. In addition, Table II shows the total cost by unit of reduction for residential and business programs and the overall total. Total cost includes rebate dollars, as well as marketing, administrative and personnel costs for each program. Through the third quarter of FY 07 the total cost of energy efficiency programs was \$1,418,914. A detailed breakdown of savings by both demand and energy by program can be found in tables III and IV.

**Table I. Energy and Demand Reductions - Overall Performance - 3<sup>rd</sup> Quarter FY 07**

	Peak kW (Demand) Reduction		MWh (Energy) Reduction	
	Actual	Target	Actual	Target
Residential Programs	690.4	964.5	6,210.5	5,044.7
Business Programs	953.9	840.9	5,499.9	4,308.3
Overall	1,644.3	1,805.4	11,710.4	9,353.0

**Table II. \$ Spent Per Reduction - Overall Performance – 3<sup>rd</sup> Quarter FY 07**

	\$ / Peak kW (Demand) Reduction		\$ / MWh (Energy) Reduction	
	Actual	Target	Actual	Target
Residential Programs	\$1,264.05	\$1,074.82	\$140.52	\$205.50
Business Programs	\$572.61	\$842.68	\$99.31	\$164.47
Overall	\$862.94	\$1,735.33	\$121.17	\$337.63

Table I shows that business programs continue to account for the majority of demand savings through the third quarter. However, residential programs continue to exceed commercial programs in energy reductions through the third quarter. The largest contributor to residential energy reductions through the third quarter has been the CFL program, as can be seen in Table III. Residential demand reductions saw an increase of 119% in the third quarter driven by AC related programs. This increase is expected to continue through the fourth quarter.

### **Stand out programs**

#### **GRU and Lowe’s Room AC Trade-In**

This promotion was targeted towards low-income customers with room AC units. Customers were required to bring their old inefficient unit along with \$20 to ‘trade-in’ for a new unit. The promotion was scheduled for June 2, from 8 – 10 AM. Because of customer participation and enthusiasm the sale actually started at 7:00 AM, and over 50 units were exchanged before 8:00 AM. 111 exchanges were made during this promotion, exceeding the program goal of 100 units for the year. This promotion benefited our customers and it helped to strengthen existing relationships between all the partners involved.

#### **Customized Business**

Table III shows that the customized business rebate continues to be the cornerstone business program. During the month of August staff will be running a pilot designed to increase participation from small business. The pilot will focus on lighting retrofits and be capped at \$5,000 a project. \$150,000 has been put aside from the customized rebate budget to fund this program, which means at least 30 projects will be funded.

**Table III. Energy and Demand Reductions - Program Breakdown – 3<sup>rd</sup> Quarter FY 07**

<b>Residential Programs</b>	<b>kW Reduction</b>	<b>MWh Reduction</b>
AC Maintenance	156.9	320.9
Duct Leak Repair	123.3	301.2
Natural Gas Rebates	107	932.5
Refrigerator Buyback	100.8	632.5
Central AC Super Efficient	94.2	121.6
Added Insulation	40.8	126.2
Self Service Energy Audit	23.3	272.7
Room AC	18.6	27.1
Central AC SEER 15+	13.8	20.7
Photovoltaic	5.7	3.0
Solar Water Heating	5.6	41.0
Reflective Roof Coating	0.3	1.0
Heat Recovery	0.1	0.1
CFL	0	3410.0
Heat Pipe	0	0.0
<b>Business Programs</b>		
Customized Business Rebate	931.6	5055.8
LED Exit Signs	22.3	192.1
Smart Vendor	0	252.0
<b>Total</b>	<b>1,644.3</b>	<b>11,710.5</b>

**Table IV. Funds Spent by Reduction - Program Breakdown 3<sup>rd</sup> Quarter FY 2007**

<b>Residential Programs</b>	<b>\$ / kW Reduction</b>	<b>\$ / MWh Reduction</b>
AC Maintenance	\$354.11	\$173.12
Duct Leak Repair	\$1,106.02	\$452.83
Natural Gas Rebates	\$1,039.43	\$119.32
Refrigerator Buyback	\$481.16	\$76.65
Central AC Super Efficient	\$879.92	\$681.66
Added Insulation	\$1,241.70	\$401.78
Self Service Energy Audit	\$1,092.27	\$93.36
Room AC	\$2,034.60	\$1,391.18
Central AC SEER 15+	\$3,363.00	\$2,235.84
Photovoltaic	\$7,447.83	\$14,172.16
Solar Water Heating	\$5,166.71	\$704.87
Reflective Roof Coating	\$55,682.12	\$19,200.73
Heat Recovery	\$131,709.60	\$127,873.40
CFL	\$0.00	\$21.51
Heat Pipe	\$0.00	\$0.00
<b>Business Programs</b>		
Customized Business Rebate	\$438.88	\$80.87
LED Exit Signs	\$3,241.13	\$376.56
Smart Vendor	\$0.00	\$258.02
<b>Total</b>	<b>\$862.94</b>	<b>\$121.17</b>

Table V shows program expenses levelized by energy efficiency measure life cycle. Expenses include rebates, marketing and labor.

**Table V. Levelized Funds Spent by Reduction - Program Breakdown 3<sup>rd</sup> Quarter FY 2007**

	\$ / kW Reduction	Measure Life Cycle	\$ / MWh Reduction	Levelized \$ / MWh
<b>Residential Programs</b>				
AC Maintenance	\$354.11	3	\$173.12	\$57.71
Duct Leak Repair	\$1,106.02	10	\$452.83	\$45.28
Natural Gas Rebates	\$94.15	15	\$119.32	\$7.95
Refrigerator Buyback	\$481.16	6	\$76.65	\$12.78
Central AC Super Efficient	\$879.92	15	\$681.66	\$45.44
Added Insulation	\$863.18	30	\$401.78	\$13.39
Self Service Energy Audit	\$1,092.27	5	\$93.36	\$18.67
Room AC	\$2,034.60	10	\$1,391.18	\$139.12
Central AC SEER 15+	\$3,363.00	15	\$2,235.84	\$149.06
Photovoltaic	\$7,447.83	20	\$14,172.16	\$708.61
Solar Water Heating	\$5,166.71	20	\$704.87	\$35.24
Reflective Roof Coating	\$55,682.12	15	\$19,200.73	\$1,280.05*
Heat Recovery	\$131,709.60	15	\$127,873.40	\$8,524.89*
CFL	\$0.00	5	\$21.51	\$4.30
Heat Pipe	\$0.00	15	\$0.00	\$0.00
<b>Business Programs</b>				
Customized Business Rebate	\$966.41	15	\$80.87	\$5.39
LED Exit Signs	\$3,241.13	11	\$376.56	\$34.23
Smart Vendor	\$0.00	10	\$258.02	\$25.80
<b>Total</b>	<b>\$862.94</b>		<b>\$121.17</b>	<b>\$11.11</b>

Table V shows that program expenses divided by future estimated energy savings is \$11.11 a MWh. As a benchmark GRU's overall system average fuel cost was \$50.18 per MWh for FY06. The cost for estimated demand reduction is \$862.94 which compares to the price of building new generation, \$400 – 800 per kW for peaking capacity and \$1,800 – 2,600 for base load capacity.

\* High levelized cost reflects marketing and labor expenses with relatively few implementations. Levelized costs are expected to drop in the third quarter with changes to how the program is managed.