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 first quarter results – information that staff uses to monitor progress toward program targets and ultimately the overall energy efficiency goal.

First Quarter Results
The first quarter of the energy efficiency plan resulted in 498 kW of demand (peak) savings and 2,489 MWh of energy (total usage) savings which 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 2 and 4 of this report. While individual programs help us reach our ultimate energy and demand savings goals, it is the outcome, or the actual energy and demand savings that most clearly demonstrate success. Some programs are expected to have high education value but low demand reductions while others may have low demand reductions and high energy reductions. A program can result in low savings in both demand and energy, but still help in leveraging other programs in achieving greater results. The LED exit sign is a good example. These signs are very visible and can help business customers better understand the advantages of energy efficiency, but result in less energy savings than other programs. But as an educational tool, they provide an opportunity for staff to promote other programs to customers such as the customized business rebate – a program that can have significant energy and demand savings.

In the first quarter, eight new incentive programs and numerous education initiatives were implemented and the first quarter target for demand savings was exceeded by 10 percent. The target for energy savings was 8 percent lower than the forecast. Overall, 19 percent of the annual demand goal was achieved in the first quarter of FY 07, Figure I.

Figure I

Annual Demand Reduction

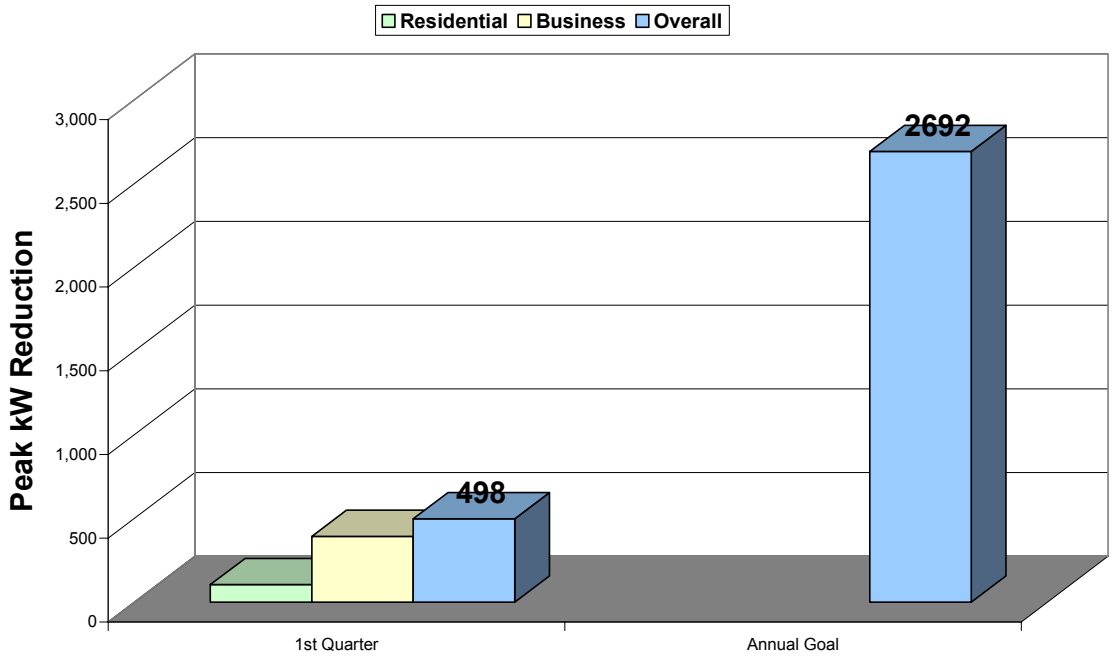

Table I below shows the breakdown of reductions by residential and business programs, as well as the overall total. In addition, Table II shows the total cost by unit of reduction for residential and business programs and the overall total. Total cost includes rebate dollars, as well as marketing, administrative and personnel costs for each program. In the first quarter of FY 07 the total cost of energy efficiency programs was $231,982.

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 - 1st Quarter FY 07

	Peak kW (Demand) Reduction		MWh (Energy) Reduction	
	Actual	Target	Actual	Target
Residential Programs	105.0	190.9	1,160.9	1,382.4
Business Programs	393.3	259.1	1,328.6	1,333.5
Overall	498.2	450.0	2,489.5	2,715.8

Table II. $ Spent Per Reduction - Overall Performance - 1st Quarter FY 07

	$ / Peak kW (Demand) Reduction		$ / MWh (Energy) Reduction	
	Actual	Target	Actual	Target
Residential Programs	$1,419.42	$1,014.51	$128.32	$140.11
Business Programs	$300.84	$936.20	$89.06	$170.70
Overall	$465.60	$878.49	$107.37	$155.13

Table I shows that business programs account for the majority of demand savings in the first quarter. This is due mostly to the ease of marketing this program compared to residential. There are fewer customers – 5,000 versus 87,000 and therefore less marketing and support materials needed to reach that customer base, and there are large account representatives for the 100 largest customers who use existing relationships to secure cost effective projects. In some cases, account representatives were aware of previously considered energy efficiency projects which were not pursued due to cost considerations.

Residential programs have experienced success in the first quarter; however the extensive number of rebates being implemented leads to an increased level of administrative overhead not experienced by business programs, which are typically more streamlined. This results in the difference in cost per unit of reduction shown in Table II. Adding to the cost of residential programs is the number of new programs which have been implemented. This generally means higher administrative costs. Once more customers begin adopting energy efficiency and taking advantage of these rebates, administrative costs should be offset. Also, Residential programs experience a higher level of seasonality, so it is anticipated that some will perform better in the 3rd and 4th quarters. It is easy to see why simply looking at programs over a short period of time would be a recipe for failure. Three months is simply too short a period to determine a program's likelihood of success. These results do, however, help staff determine when minor modifications may be needed. A good example of this is the room air conditioning rebate. Because this program is targeted to a very specific market, staff has spent time working with students at the University of Florida trying to determine what changes might be needed to reach this target market. Based on this research, staff will be modifying the way these rebates are handled by offering a voucher rather than a simple rebate.

As can be seen in Table III in the residential sector, more mature programs achieved the greatest reductions in the first quarter and did so with the least expense. These include Natural Gas, AC Maintenance and Duct Leak Repair. An exceptional new program is the CFL program which achieved the most energy savings of any residential program in the first quarter. The success of the CFL program is due to many factors, including community groups who helped install CFLs in customer homes. The Cultural Arts Coalition (Environmental Ambassadors) installed 2,622 CFLs in 237 in Lincoln Estates and the University of Florida Housing Department installed 2,330 CFLs in 203 apartments in Tanglewood Apartments (student married housing). There will be more opportunities in coming months for interested community groups to assist with these programs.

All three business programs performed well in the first quarter, despite being recent additions the energy efficiency program. As Table III shows the customized business rebate achieved the greatest reductions in the business sector. This customized program offers flexibility to meet specific energy needs of any business.

Table III. Energy and Demand Reductions - Program Breakdown - 1st Quarter FY 07

Residential Programs	kW Reduction	MWh Reduction
Natural Gas Rebates	33.7	294.2
AC Maintenance	29	59.4
Duct Leak Repair	18.1	44.2
Central AC Super Efficient	13	16.8
Central AC SEER 15+	6.5	9.8
Self Service Energy Audit	2.3	27.4
Added Insulation	1	3.0
Solar Water Heating	1	7.3
Room AC	0.2	0.2
Reflective Roof Coating	0.1	0.3
CFL	0	698.3
Photovoltaic	0	0.0
Heat Pipe	0	0.0
Heat Recovery	0	0.0
Refrigerator Buyback	0	0.0
Business Programs		
Customized Business Rebate	392	1167.0
LED Exit Signs	1.3	11.1
Smart Vendor	0	150.5
Total	498.2	2489.5

Table IV. $ Spent by Reduction - Program Breakdown FY 2007 1st Quarter

Residential Programs	$ / kW Reduction	$ / MWh Reduction
Natural Gas Rebates	$98.32	$11.28
AC Maintenance	$446.87	$218.47
Duct Leak Repair	$797.95	$326.00
Central AC Super Efficient	$960.06	$743.74
Central AC SEER 15+	$2,025.56	$1,346.66
Self Service Energy Audit	$2,414.56	$206.37
Added Insulation	$7,777.88	$2,516.68
Solar Water Heating	$9,068.24	$1,237.14
Room AC	$41,431.25	$28,329.06
Reflective Roof Coating	$53,181.82	$18,338.56
CFL	$0.00	$24.23
Photovoltaic	$0.00	$0.00
Heat Pipe	$0.00	$0.00
Heat Recovery	$0.00	$0.00
Refrigerator Buyback	$0.00	$0.00
Business Programs		
Customized Business Rebate	$168.18	$56.49
LED Exit Signs	$10,887.42	$1,264.93
Smart Vendor	$0.00	$177.46

Included in the backup is a simple scorecard based on the numbers above. This tool is used by staff and provides a quick view of individual programs being implemented.