

ORIGINAL



BEFORE THE
ORLANDO UTILITIES COMMISSION
DOCKET NO. 990722-EG

ADOPTION OF NUMERIC CONSERVATION GOALS

NOVEMBER 15, 1999

TESTIMONY & EXHIBITS OF:

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1 distribution engineering and manager of materials and standards.

2

3 **Q Please describe the overall process leading to the determination of the**
4 **proposed numeric conservation goals for OUC?**

5 A Six major steps were taken to determine the proposed numeric conservation goals
6 for OUC. First, DSM measures with the highest potential of being cost-effective
7 were chosen. Second, the avoided cost must be established. Third, the selected
8 measures were analyzed against the avoided costs in cost-effective analyses.
9 Fourth, results of the analyses are analyzed. Fifth, the proposed numeric goals
10 were set based on the results of the analyses. Sixth, a DSM plan was developed
11 for programs that OUC proposes.

12

13 **Q What is the purpose of your testimony in this proceeding?**

14 A The purpose of my testimony is to address steps four, five, and six. In my
15 testimony, I will discuss the results of the cost-effectiveness analysis, the numeric
16 goals proposed by OUC and the implementation of the demand side programs. I
17 will also discuss existing programs at OUC and programs that have been
18 discontinued. Potential future programs will be also discussed.

19

20 **Q Were Sections of the OUC's 2000 Demand Side Management Plan (Exhibit**
21 **OUC-1) prepared by you or under your direct supervision?**

22 A Yes. OUC's 2000 Demand Side Management Plan was prepared by Black &
23 Veatch under my direct supervision.

24

25 **Q Are you adopting any of the Sections of OUC's 2000 Demand Side**

1 **Management Plan as part of your testimony?**

2 A Yes, I am adopting Section 6.0.

3

4 **Q Are there any corrections to this Section?**

5 A No.

6

7 **Q Have you prepared any exhibits?**

8 A Yes. I have prepared Exhibit RLA-1 which is incorporated as part of my
9 testimony.

10

11 **Q Please describe the how the results of the cost-effectiveness evaluation for the**
12 **DSM measures were analyzed.**

13 A In general, OUC uses the Rate Impact Test as its primary criterion for determining
14 cost-effectiveness for DSM programs. In other words, OUC will not implement
15 DSM programs that cause rates to increase unless there are significant other
16 considerations such as customer education.

17

18 The Rate Impact Test is a measure of the expected impact on customer rates
19 resulting from a DSM program. The test statistic is the ratio of the utility's
20 benefits (avoided supply costs and increased revenues) compared to the utility's
21 costs (program costs, incentives paid, increased supply costs and revenue losses).
22 A value of less than one indicates an upward pressure on rate levels as a result of
23 the DSM program.

24

25 **Q Please describe the results of the cost-effectiveness evaluation.**

1 A Seven residential and four commercial measures were analyzed for cost-
2 effectiveness. None of the measures passed the Rate Impact Test.

3

4 **Q Please describe the development of OUC's proposed numeric goals for the**
5 **years 2001 – 2010.**

6 Since none of the measures passed the Rate Impact Test, OUC's proposed
7 numeric goals are zero for demand and energy.

8

9 The numeric goals are shown in Exhibit RLA - 1.

10

11 **Q Are these goals feasible for OUC?**

12 A Yes. OUC expects to surpass these goals.

13

14 **Q Please describe the measures tested from OUC's 1995 DSM Plan.**

15 A Seven residential measures and three commercial measures were tested. I will
16 give a brief overview of each measure, residential measures first.

17

18 The Residential Direct Load Control (DLC) Main and Direct Load Control
19 (DLC) Pool Pumps are designed to control central air conditioners (CAC), electric
20 furnaces, heat pump auxiliary heat operations, electric water heaters and pool
21 pumps. The program was planned to use FM/VHF radio system. The DLC system
22 will use a 50% duty cycle for CAC and strip heat equipment. The system sheds
23 electric water heaters, heat pump auxiliary heaters and pool pumps. As a
24 minimum, all DLC customers have their CAC, heating systems, and electric water

25

1 heaters controlled. Credits are given based on the number of days a customer is
2 controlled.

3
4 The Residential Energy Survey is designed to provide residential homeowners
5 with recommended energy efficiency measures and practices. The Residential
6 Energy Survey includes complete attic, air duct and air return inspections. The
7 customer is given a choice to receive a water heater jacket, low-flow showerhead,
8 or compact fluorescent bulb. OUC Energy Analysts are presently using this walk-
9 through type audit as a means to get OUC customers to participate in other
10 conservation programs and to qualify for appropriate rebates.

11
12 The Residential Heat Pump Program is marketed to the owners of existing
13 residential strip heating systems and older, inefficient central air conditioners and
14 heat pumps. The program requires heat pumps with a SEER of 11 (or greater)
15 and a HSPF of 7.0 (or greater) in order to qualify for rebates. Rebates range in
16 terms of equipment SEER levels, tonnage and replaced equipment. The main
17 strength of the program's success is the air conditioning contractors that now
18 inspect customer's ductwork and insulation levels. Contractors often install
19 energy efficient heat pumps plus duct repairs and additional insulation as a part of
20 a total energy savings package for customers.

21
22 The Residential Weatherization Program is designed for existing single family
23 homes and promotes R-19 ceiling insulation (or higher), caulking, weather-
24 stripping, window treatment, water heater insulation, and air conditioning/heating
25 supply and return air duct repair. The customer will receive a \$140 rebate for

1 installing R-19 ceiling insulation (or higher), \$100 rebate for duct repairs and up
2 to \$110 for other conservation measures specified above. In addition, the
3 customer is allowed to carry payments for ceiling insulation on their electric bill
4 for 12 or 24 months. OUC pays the total contractor cost.

5
6 The Residential Low Income Energy Fix-Up Program began in 1985 and, since
7 inception, has made more than 3,000 homes more energy efficient. This program
8 is offered to customers whose total family annual income does not exceed
9 \$20,000. The Fix-Up Program will pay 85% of the total contract cost for home
10 weatherization for the following measures: (a) upgrading ceiling insulation to R-
11 19; (b) exterior and interior caulking; (c) weather-stripping doors and windows;
12 (d) air conditioning/heating supply and return air duct repairs; (e) installation of
13 energy efficient doors and (f) water heater insulation. Customers are allowed to
14 carry the 15% contractor payment on their monthly electric bill. OUC pays the
15 customer's 15% cost to the contractor. OUC has agreed in a Memorandum of
16 Understanding with the State Department of Consumer Affairs dated March 17,
17 1995 to continue this program.

18
19 The Residential Efficient Water Heating Program encourages residential
20 customers in existing homes to install waste heat recovery units and to insulate
21 older, less efficient, electric water heaters. Customers receive a \$50 rebate for
22 installing a waste heat recovery unit.

23
24 The Commercial Energy Survey Program is a physical walk-through inspection of
25 the commercial facility. The commercial customer having a Commercial Energy

1 Survey receives a report at the time of the survey. Within 30 days of a detailed
2 audit, the customer receives a written report. Conservation literature is provided
3 to all customers.

4

5 The Commercial Cooling Program is a survey that targets existing commercial
6 customers. Customers with existing HVAC units of 20 tons or less may qualify
7 for rebates of up to \$3,000.

8

9 **Q Did you test any additional measures.**

10 A Yes, we tested Florida Power & Light's (FPL) most cost-effective measure. The
11 measure was found not cost-effective for OUC. We in essence screened and
12 eliminated all measures screened by FPL.

13

14 **Q Will any of the above programs be continued or implemented.**

15 A OUC proposes to continue selected programs discussed above. The residential
16 and commercial/industrial programs will be continued. OUC is choosing to
17 continue the programs because of the high level of customer participation and the
18 potential positive effects on the community.

19

20 **Q Does this conclude your testimony?**

21 A Yes.

22

23

24

25

Proposed Numeric Conservation Goals						
Year	Residential Reduction			Commercial/Industrial Reduction		
	Summer kW	Winter kW	MWh	Summer kW	Winter kW	MWh
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0