**FLORIDA PUBLIC SERVICE COMMISSION**

**Fletcher Building**

**101 East Gaines Street**

**Tallahassee, Florida 32399-0850**

**M E M O R A N D U M**

**September 23, 1994**

**TO :DIRECTOR, DIVISION OF RECORDS AND REPORTING**

**FROM :DIVISION OF ELECTRIC AND GAS [SHINE, FUTRELL, HAFF, TAYLOR, BALLINGER, FLOYD, MILLS]**

**DIVISION OF LEGAL SERVICES [PALECKI]**

**RE :DOCKET NOS. 930548-EG, 930549-EG, 930550-EG, 930551-EG - ADOPTION OF NUMERIC CONSERVATION GOALS AND CONSIDERATION OF NATIONAL ENERGY POLICY ACT STANDARDS (SECTION 111) by: FLORIDA POWER & LIGHT COMPANY, FLORIDA POWER CORPORATION, GULF POWER COMPANY, TAMPA ELECTRIC COMPANY**

**AGENDA:10/3/94 - SPECIAL AGENDA**

**POST HEARING DECISION - PARTICIPATION IS LIMITED TO**

**COMMISSIONERS AND STAFF**

**CRITICAL DATES: NONE**

**SPECIAL INSTRUCTIONS: I:\PSC\EAG\WP\930548.RCM**

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**CASE BACKGROUND**

Docket Nos. 930548-EG, 930549-EG, 930550-EG, and 930551-EG were opened to implement Rules 25-17.001-.005, Florida Administrative Code. These rules require the setting of numeric demand side management (DSM) goals for electric utilities subject to the Florida Energy Efficiency and Conservation Act (FEECA), 366.80-366.85 and 403.519, Florida Statutes. The Commission also decided to consider in this proceeding implementation of two standards set forth in the Public Utilities Regulatory Policy Act of 1978 (PURPA) as amended by Subtitle B, Section 111, of the Energy Policy Act of 1992 (EPACT). These standards are commonly referred to as the "Integrated Resource Planning" and the "Income Neutrality" standards. (See Issues 16 through 21).

The Prehearing Order for this proceeding was issued on May 26, 1994 (Order No. PSC-94-0652-PHO-EG). The hearing was held on the following days: June 1-4, 6-10, 17-18, 20-21, 27, 29-30, and July 12, 1994. These dates include service hearings held in the evenings for convenience of the general public in Tallahassee on June 1, in Miami on June 30, and in Tampa on July 12, 1994. Briefs and Posthearing Statements were filed on August 22, 1994.

**EXECUTIVE SUMMARY OF STAFF RECOMMENDATION**

**1. DOCKET PURPOSE** - The major purpose of the docket is to: (a) establish numeric conservation goals for the four major investor owned utilities, and (b) consider adopting Integrated Resource Planning and Income Neutrality standards required for consideration by the 1992 (National) Energy Policy Act.

**2. SIX NUMERIC GOALS** - Recommending the following six numeric annual goals for each utility for ten years:

Residential

(1) kW winter demand reduction

(2) kW summer demand reduction

(3) kWh annual energy reduction

Commercial/Industrial

(1) kW winter demand reduction

(2) kW summer demand reduction

(3) kWh annual energy reduction

A comparison of staff's proposed goals for the year 2003 for the four major IOUs follows:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COMPARISON OF RESIDENTIAL GOALS IN 2003 | | | | | | | | |
|  | UTILITY PROPOSED RIM GOALS DISCOUNTED FOR FREE RIDERS | | | | | | | |
|  | FPL | | FPC | | TECO | | GULF | |
|  | MW/GWH | %  OF SYS | MW/GWH | % OF  SYS | MW/GWH | % OF SYS | MW/GWH | % OF SYS |
| Summer | 631 | 3.7 | 174 | 1.8 | 76 | 2.4 | 88 | 3.7 |
| Winter | 542 | 3.1 | 444 | 4.8 | 267 | 7.5 | 96 | 4.6 |
| GWH | 684 | .7 | 136 | .3 | 128 | .7 | 198 | 1.9 |
|  | STAFF PROPOSED 100% RIM GOALS | | | | | | | |
|  | FPL | | FPC | | TECO | | GULF | |
|  | MW/GWH | %  OF  SYS | MW/GWH | % OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS |
| Summer | 895 | 5.2 | 209 | 2.6 | 93 | 2.9 | 126 | 5.3 |
| Winter | 765 | 4.4 | 483 | 5.2 | 292 | 8.2 | 137 | 6.6 |
| GWH | 1,030 | 1.0 | 184 | .4 | 172 | .9 | 283 | 2.7 |
|  | UTILITY CALCULATED GOALS BASED ON TRC | | | | | | | |
|  | FPL | | FPC | | TECO | | GULF | |
|  | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS |
| Summer | 770 | 4.5 | 319 | 4.0 | 106 | 3.4 | 139 | 5.9 |
| Winter | 629 | 3.6 | 743 | 8.0 | 309 | 8.7 | 143 | 6.8 |
| GWH | 6,319 | 6.4 | 1323 | 3.1 | 490 | 2.7 | 454 | 4.3 |
|  | SRC "BEST PRACTICES" GOALS | | | | | | | |
|  | FPL | | FPC | | TECO | | GULF | |
|  | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS |
| Summer | 2,084 | 12.2 | 65 | .8 | 193 | 6.1 | 54 | 2.3 |
| Winter | 836 | 4.8 | 93 | 1.0 | 72 | 2.1 | 25 | 1.2 |
| GWH | 4,873 | 4.9 | 449 | 1.0 | 373 | 2.1 | 212 | 2.0 |

Note: 1 GWH = 1,000,000 KWH

1 MW = 1,000 KW

Building code effects excluded from above.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COMPARISON OF COMMERCIAL/INDUSTRIAL GOALS IN 2003 | | | | | | | | |
|  | UTILITY PROPOSED RIM GOALS DISCOUNTED FOR FREE RIDERS | | | | | | | |
|  | FPL | | FPC | | TECO | | GULF | |
|  | MW/GWH | % OF  SYS | MW/GWH | % OF  SYS | MW/GWH | % OF  SYS | MW/GWH | %  OF  SYS |
| Summer | 420 | 2.5 | 68 | .8 | 18 | .6 | 15 | .6 |
| Winter | 179 | 1.0 | 54 | .6 | 6 | .2 | 8 | .4 |
| GWH | 562 | .6 | 239 | .6 | 79 | .4 | 13 | .1 |
|  | STAFF PROPOSED 100% RIM GOALS | | | | | | | |
|  | FPL | | FPC | | TECO | | GULF | |
|  | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS |
| Summer | 622 | 2.6 | 84 | 1.1 | 59 | 1.9 | 22 | 0.9 |
| Winter | 245 | 1.4 | 64 | .7 | 21 | .6 | 11 | .5 |
| GWH | 832 | .8 | 336 | .8 | 267 | 1.4 | 18 | .2 |
|  | UTILITY CALCULATED GOALS BASED ON TRC | | | | | | | |
|  | FPL | | FPC | | TECO | | GULF | |
|  | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS |
| Summer | 853 | 5.0 | 347 | 4.4 | 97 | 3.1 | 76 | 3.2 |
| Winter | 254 | 1.4 | 250 | 2.7 | 31 | .9 | 53 | 2.5 |
| GWH | 1,339 | 1.4 | 671 | 1.6 | 436 | 2.4 | 128 | 1.2 |
|  | SRC "BEST PRACTICES" GOALS | | | | | | | |
|  | FPL | | FPC | | TECO | | GULF | |
|  | MW/GWH | % OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS | MW/GWH | %  OF  SYS |
| Summer | 1,059 | 6.2 | 178 | 2.2 | 181 | 5.7 | 77 | 3.2 |
| Winter | 232 | 1.3 | 60 | .6 | 43 | 1.2 | 25 | 1.2 |
| GWH | 3,081 | 3.1 | 732 | 1.7 | 523 | 2.8 | 255 | 2.4 |

Note: 1 GWH = 1,000,000 KWH

1 MW = 1,000 KW

Building code effects excluded from above.

**3. SRC BEST PRACTICES GOALS** - Reject as no witness supported these goals that knew how they were developed. McDonald, witness for DCA, supported only as aspiration goals, not as realistic goals. Only realistic choices are RIM or TRC based goals or something close to these. Also, the rate impacts of SRC's best practices goals are unknown.

**4. RIM v. TRC** - The good news is that the rate impact between RIM and TRC is negligible, the bad news is that the powerplant savings and pollution reductions are also negligible.

**5. RIM GOALS** - Recommending goals based on 100% RIM unadjusted for free riders. Commission can impose its own programs if utility does not meet its RIM goals. An alternative might be adding some RIM losers but constrained to a RIM portfolio. However, this means every time programs or program modifications are filed, the whole portfolio must be re-evaluated and a goals type docket commenced to determine savings and rate impacts.

**6. NATURAL GAS** - Do not mandate joint gas and electric utility pilot programs, but require electric utilities to conduct research and demonstration projects to develop Florida specific information on performance and cost-effectiveness of gas technologies for space heating, cooling, dehumidification and water heating.

**7. LOST REVENUE RECOVERY AND INCENTIVES** - Recommending rejecting revenue decoupling and the subsequent recoupling to system revenues. Staff recommends consideration of lost revenues for utility-sponsored DSM programs. Lost revenues should be granted on a case-by-case basis only for programs that fail RIM. In addition, incentives would be granted on a case-by-case basis for these programs through a mechanism similar to that now in place for load management.

**8. INTEGRATED RESOURCE PLANNING (IRP) FEDERAL STANDARD** - Reject the IRP standard because we do not know what it means. IRP may mean TRC or it may mean RIM. IRP may mean externalities or natural gas, or a certain type of decoupling. Florida utilities may be doing IRP now. Or they may not be. Whatever the current IRP definition, it will likely change with future federal court interpretations.

**9. DSM INVESTMENTS AT LEAST AS PROFITABLE AS BUILDING POWERPLANTS FEDERAL STANDARD** - This means revenue decoupling or lost revenue recovery and incentives. Reject for strategic reasons cited for IRP. However, at this time adopt Florida's version which is lost revenue recovery and higher guaranteed ROE for natural gas end-use, high thermal efficiency cogeneration, renewables, and solar.

**10. LOW INCOME** - Recommending no goals for residential low income customers. With RIM programs, low income customers are no worse off, and are probably better off. Each utility should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts.

**11. SPECIFIC GOALS** - Recommending the six annual overall goals and rejecting specific goals to give utilities flexibility to address changing DSM cost-effectiveness and face unknown increased competition.

**12. AVOIDED COST (INCLUDING EXTERNALITIES)** - Recommending that each utility's method of computing avoided costs are acceptable, but some improvements could be made. Recommending externalities be excluded as this is DEPs function whose witness said they are not quantifiable. However, the cost of SO2 allowances, although of negligible impact, should be included.

**13. BUILDING CODE** - Recommending that a task force be formed consisting of DCA, utilities, staff, and other interested persons to determine if the building code is the most cost-effective to the participant and, if not, the Commission should reopen the service availability charge docket to charge for costs being imposed on others for inefficiency. However, costs for any new building DSM that fails the participant test, but conveys a benefit to other ratepayers (i.e. RIM) or involves high thermal efficiency cogeneration, natural gas end-use, renewables, or solar can be recovered pursuant to the conservation cost recovery clause, along with any lost revenue recovery and incentives. The effect of the building code is not included in the recommended numeric goals.

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**ISSUE 20:** If the Commission adopts the federal standard of IRP, did TECO's planning processes used to propose conservation goals meet the federal standard of "IRP"? [FUTRELL, FLOYD] ‑ 70 ‑

**ISSUE 21:** Should the Commission implement the Investments In Conservation And Demand Management standard in the Public Utility Regulatory Policy Act as amended by the Energy Policy Act of 1992? If so, what would the effect of implementing the standard be?

[FLOYD, PALECKI] ‑ 72 ‑

**Generic Numeric Goals**

**LEGAL**

**ISSUE 22:** Pursuant to Rule 25-17.0021, F.A.C., and other applicable legal authority, can the Commission set numeric goals for each major end-use category within each market segment?

[PALECKI] ‑ 76 ‑

**FPL's Numeric Goals**

**ISSUE 23:** If numeric goals should be set for each major end-use category within each market segment, what should FPL's goals be?

[SHINE] ‑ 79 ‑

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**ISSUE 27:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPL's goals be? [MILLS, SHINE] ‑ 90 ‑

**ISSUE 28:** Should the Commission direct FPL to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

[MILLS, SHINE] ‑ 93 ‑

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[SHINE] ‑ 98 ‑

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**FPC's Numeric Goals**

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[HAFF] ‑ 110 ‑

**ISSUE 33:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPC's goals be? [HAFF] ‑ 112 ‑

**ISSUE 34:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C., and if so, what should FPC's goals be? [HAFF] ‑ 116 ‑

**ISSUE 35:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPC's goals be? [MILLS, HAFF] ‑ 118 ‑

**ISSUE 36:** Should the Commission direct FPC to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

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**ISSUE 37:** What should be FPC's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

[HAFF] ‑ 126 ‑

**ISSUE 38:** What should be FPC's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.? [HAFF] ‑ 131 ‑

**ISSUE 39:** Should a percentage of FPC's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

[PALECKI, HAFF] ‑ 135 ‑

**GULF's Numeric Goals**

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**ISSUE 42:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C., and if so, what should GULF's goals be? [TAYLOR] ‑ 144 ‑

**ISSUE 43:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should GULF's goals be? [MILLS, TAYLOR] ‑ 146 ‑

**ISSUE 44:** Should the Commission direct GULF to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

[MILLS, TAYLOR] ‑ 149 ‑

**ISSUE 45:** What should be GULF's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

[TAYLOR] ‑ 154 ‑

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**ISSUE 47:** Should a percentage of GULF's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

[PALECKI, TAYLOR] ‑ 164 ‑

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**ISSUE 49:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1995-2004 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should TECO's goals be? [FUTRELL] ‑ 169 ‑

**ISSUE 50:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C., and if so, what should TECO's goals be? [FUTRELL] ‑ 173 ‑

**ISSUE 51:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1995-2004 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should TECO's goals be? [MILLS, FUTRELL] ‑ 175 ‑

**ISSUE 52:** Should the Commission direct TECO to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

[MILLS, FUTRELL] ‑ 178 ‑

**ISSUE 53:** What should be TECO's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C.?

[FUTRELL] ‑ 183 ‑

**ISSUE 54:** What should be TECO's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C.? [FUTRELL] ‑ 188 ‑

**ISSUE 55:** Should a percentage of TECO's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

[PALECKI, FUTRELL] ‑ 192 ‑

**Miscellaneous**

**ISSUE 56:** What type of interaction should the Commission have with DCA on CUE measures and Florida Energy Efficiency Code changes?

[SHINE] ‑ 195 ‑

**ISSUE 57:** What, if any, is the proper linkage among building code options and utility programs in establishing numeric conservation goals, evaluating demand-side management measures?

[SHINE] ‑ 199 ‑

**ISSUE 58:** ISSUE DELETED ‑ 202 ‑

**ISSUE 59:** ISSUE DELETED ‑ 202 ‑

**ISSUE 60:** ISSUE DELETED ‑ 202 ‑

**LEGAL**

**ISSUE 61:** What does "reasonably achievable" mean in Rule 25- 17.0021, F.A.C.? [PALECKI] ‑ 202 ‑

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**ISSUE 63:** Should this docket be closed? ‑ 205 ‑

**POST HEARING MOTIONS**

**ISSUE 64:** Should the Legal Environmental Assistance Foundation Inc.'s Objections to Late-Filed Exhibits be sustained? [PALECKI] ‑ 206 ‑

**ISSUE 65:** Should the Department of Community Affairs' Motion for Reconsideration of Non-Final Order be granted? [PALECKI] ‑ 207 ‑

**ISSUE 66:** Should the Department of Community Affairs' Motion to Admit Exhibit 90 be granted? [PALECKI] ‑ 208 ‑

**DISCUSSION OF ISSUES**

**FPL's Methodology/Process**

**ISSUE 1:** Is the planning process and data used by FPL in evaluating demand side measures reasonable?

**RECOMMENDATION:**  Yes. [SHINE]

**POSITION OF PARTIES**

**FPL:** Yes. FPL's planning process and data is designed to evaluate supply and demand side resources on a consistent basis in an integrated process and ascertain the most cost-effective long-term resource plan. Innovative linear programming optimized RIM and TRC DSM portfolios used in resource optimization and system production costing models to develop alternative conservation goals. The most current available data was used in screening and integration analyses performed to identify maximum potential DSM. No intervenor offered a criticism or proposed a change that would fundamentally alter results presented by FPL.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in this docket.

**DCA:** The inherent structure of the FPL planning process does not give proper consideration to several important and reasonable issues when evaluating DSM measures. For example, the FPL process does not allow for public hearings or the evaluation of DSM measures from a statewide perspective. In addition, in this docket, the FPL planning process omitted several areas of analysis that are normally completed in the course of the planning process. FPL witnesses admitted under cross examination that the impact of cogeneration, power purchases, and gas measures were omitted due to time constraints.

**DOE:** No Position.

**LEAF/EVANS:** No. FPL failed to sponsor a "least cost" supply plan for DSM screening. FPL eliminated 100 MW of TRC potential using a two-year payback screen. FPL's cost-effectiveness screening did not follow the C/E Manual and used unreasonable inputs including improper DSM timing, and measure costs. FPL understated avoided costs in several ways. FPL's "integration" arbitrarily rejected DSM resources in later years. FPL unreasonably evaluated environmental costs and risks. FPL ignored savings from R&D measures. FPL performed no cost-effectiveness sensitivity analysis.

**FCC:** The planning process and data of FPL are not reasonable for the reasons presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on this issue.

**FlaSEIA:** No. FPL's planning process is unreasonable because it fails to conform to the federal IRP standards outlined in the Energy Policy Act of 1992. In particular, FPL's planning process: uses an optimization procedure based upon minimum average system rates rather than lowest system costs; relies on faulty two-year payback screening; fails to consider a full range of supply side resources which include solar energy, purchased power, cogeneration, and fuel substitution; underestimates avoided costs; and used improper assumptions regarding the timing of DSM savings and costs.

**CITY GAS:** No. FPL's conclusion that none of the 11 gas measures are cost-effective raises serious questions about FPL's process. FPL used faulty data to exclude natural gas substitution from its DSM portfolio. The use of such inappropriate information is confirmed by the Hampton Report (Exhibit No. 104) and the testimony of numerous witnesses.

**PEOPLES:** No. Specifically, FPL's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures.

**WFNG:** No, because FPL has failed to adequately consider natural gas substitution measures.

**FIPUG:** No position.

**CEPA:** No.

**FECA:** No Position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** FPL's planning process and data are reasonable for purposes of evaluating DSM measures and establishing numeric goals. The Company incorporated a relatively robust planning process with the evaluation of all required measures, and FPL specific DSM measures. Various parties disagree in whole or in part with FPL's analysis and planning assumptions. While staff agrees that certain elements of FPL's evaluation and data could be improved, such as its failure to reflect the cost of environmental allowances, questionable gas analysis data, and failure to establish goals for years 2001-2003, we detect no fatal flaws in FPL's process which would significantly alter the outcome.

FPL first calculated the achievable market potential for each measure by incorporating a screening analysis with both the RIM and TRC tests using a 1997 CT avoided unit. This type of unit appears only in FPL's base case supply side only plan. Input assumptions regarding cost and performance of the measures were updated to reflect those specific to FPL's service territory. Measures were mapped into competing and complementary groupings to identify interrelationships between them. Market potential estimates were calculated for each measure. Two lists were created, one with all programs passing RIM and one with all programs passing TRC regardless of whether RIM was passed. The two lists were then examined in FPL's IRP process which screened the measures with a more detailed cost-effectiveness model. Measures which passed this screening were then run through a linear programming model to create optimal packages of DSM measures which were then incorporated into the long term resource plan. (Ex. 3)

FPL developed three plans to analyze its need for DSM programs: a Supply Only plan, a DSM RIM plan, and a DSM TRC plan. (Ex. 3, Tr. 44) FPL then compared the Present Value Revenue Requirements (PVRR) of each plan and the annual rate impacts in cents/Kwh of each plan prior to selecting the DSM RIM plan as the least cost plan based on the position of maintaining the lowest possible system rates. (Tr. 60)

CEPA argues that FPL's analysis is biased toward including too much DSM in its resource plan at the expense of competitively bid supply options. CEPA contends that true integrated resource planning requires a year by year simultaneous comparison of both supply and demand side options. (Tr. 3334-36)

CEPA alleges that FPL's plan is not optimal because the production costing model EGEAS was not allowed to select the most economic units when capacity additions were identified in the reliability studies. (Tr. 3342) The 1997 CT avoided units were not selected based on the basis of cost, rather they were forced in the plan due to construction timing concerns. (Ex. 3 p. 66) FPL's witness Dr. Sim explained that combustion turbines were selected in 1997, not because they produced the lowest average levelized rate, or lowest PVRR, but because they were the only type of unit which FPL could permit and build in the limited time frame. (Tr. 410) Additionally, FPL used a string of pulverized coal units as a proxy for new units in years 2002 forward. FPL's planning assumptions drew criticism from CEPA's witness Mr. Slater who stated that FPL's IRP process is not optimal, if measured by the Energy Policy Act Section 111, because it should not produce a string of the same type capacity in future years. (Ex.3 67-73, Tr. 3343)

CEPA argues that FPL used different methods to project generating unit outages for existing units and new capacity additions which affects system reliability indices such as LOLP, and ultimately overestimates the amount of capacity needed for the system by between 140-265 MW. (Tr. 404-06) CEPA's witness Mr. Slater calculated 265 MW of extra capacity in the Supply Only plan by 2003 which would have produced a plan with two, not three, combustion turbine units in 1997. (Tr. 3359-60, 3395) FPL's witness Dr. Sim agreed with CEPA's theory about the 140 MW, but noted that all things being perfect, FPL would not have constructed any less capacity because generating plants come in discreet sizes. (Tr. 406)

LEAF on the other hand believes that FPL's planning process is inadequate and biased against DSM because it did not produce an optimal least cost supply plan. (Tr. 1787) FPL's Supply Only plan resulted in a 42 MW shortage in 2001. The company chose to accept the reliability risk rather than include a new unit which introduces a bias against DSM. (Tr. 1787) LEAF also takes issue with FPL's use of a 2 year-payback criterion to screen DSM measures. (Tr. 1746) FPL believes that this screen was an attempt to estimate free riders, as required by the Commission's rule. (Tr. 4284)

LEAF takes issue with FPL's use of the revenue requirements method to evaluate a measure's cost-effectiveness where the life of the measure was less than the avoided unit life requiring the installation of a second measure to match or exceed the avoided unit life. (Tr. 1751-52) LEAF witness Chernick testified that FPL should either have included the full life cycle cost of the reinstallation or credited back the installation cost for those years past the avoided unit's life. (Tr. 1883) Staff agrees with this criticism and points out that a mismatch between the measure's life and the avoided unit's life would lead to end-effects not recognized in the analysis. End-effects would allow a comparison of the two plans based on differences in critical indicators such as installed capacity, reserve margins, and reliability indices at the end of the planning period. Staff does not believe correcting the end-effects mismatch would be a material impact. Certainly, the end-effects are demagnified by present value discounting.

Additionally, Mr. Chernick alleges that FPL understated its avoided cost by not including the proper cost of avoided capacity, energy, transmission and distribution, environmental externalities, and recognition of Clean Air Act Compliance costs in its plan. (Tr. 1761-81)

FPL asserts that avoided cost were not understated as the avoided unit, a 1997 CT chosen due to construction time constraints causes higher total system cost and more cost-effective DSM-RIM than the preferred economic choice, a 1997 Combined Cycle. (Tr. 4598) The cost-effectiveness of any DSM program is dependent on the total system cost of new capacity options to which the DSM is compared. (Tr. 4598)

Mr. Chernick alleges that FPL should use $400/kW for the avoided distribution costs when evaluating DSM measures rather than the $30-50/kW range which the company used. (Tr. 4606) LEAF's analysis alleges that 93% of FPL's total distribution cost ($431/kW) are avoidable due to DSM options. (Tr. 1775) FPL alleges that LEAF's analysis incorrectly includes the cost of maintaining the existing distribution system and the cost of adding new customers. (Tr. 4604)

FPL disagrees with LEAF and cited two separate studies to arrive at its current estimate of $50/kW. (Tr. 4604) FPL's first study separated total distribution cost into three primary areas. (Tr. 4606) Type I costs ($241/kW) are required to connect new subdivisions and new customers. These costs include new underground and overhead feeders, transformers, and meters. Type II costs ($46/kW) are growth related expenditures to upgrade primary feeders and substations. Type III costs ($141/kW) are for asset replacement and maintaining existing equipment at accepted standards. (Tr. 4605)

FPL's analysis concluded that DSM options have a significant impact on Type II costs only, because Type I and II costs are incurred to serve new customers on the system. Type I and III costs do not vary significantly with reductions in customer's load as LEAF alleges. (Tr. 4605)

Mr. Chernick criticized FPL for not assigning a cost in its planning process for possible future cost for air toxic requirements of Title III of the Clean Air Act Amendments which were not immediately imposed on utilities by Congress. (Tr. 1869-70) Under cross examination, Mr. Chernick admitted that he desired FPL's current forecast to assume air toxic controls will be in place in the future and for FPL to make resource choices today as if those controls were in place in the future. (Tr. 1873) FPL believes that LEAF's recommendation goes well beyond the EPAct definition of system costs which include all direct and quantifiable net costs for environmental compliance. (Tr. 4579) FPL does not believe that cost projections/estimates for compliance with environmental laws that do not yet exist, or the use of externalities are appropriate to include in utility planning. (Tr. 4579)

While FPL did not conduct an optimization on later units past year 2002, the primary focus appears to be on the next avoidable unit, a 1997 CT. (Ex. 3 p. 69-70) FPL did identify three types of capacity in its Supply Only plan, a CT in 1997, a CC in 1998-99 and a PC in 2002. (Ex. 3 p. 73) Since the goals will be revisited every five years, this appears to be reasonable, particularly since this is our first attempt to set numerical goals since 1980. FPL's use of a string of coal units was primarily to indicate a base load need and fill capacity slots until the specific type of resource could be identified. FPL chose to optimize its resource plan based on rate minimization, not on lowest system cost or lowest present worth revenue requirements which many have interpreted the EPAct to require.

Staff is concerned with FPL's contention that since the DSM-RIM plan cannot fully defer the 340 MW resource need in 2002, 210 MW of remaining cost-effective DSM-RIM should not be included in the Company's goal for the years 2001-2002. Staff believes that FPL's planning process should have demonstrated more flexibility in the latter years of the planning process by incorporating 130 MW (340-210) of other supply options along with the 210 MW of DSM-RIM potential previously deleted from its goals proposal to meet the 2002 need. (Ex. 3 p. 61, 71) As discussed in Issue 29, staff recommends a combination of supply and DSM for this period.

**ISSUE 2:** What data and analyses are most appropriate for use by the Commission in establishing appropriate numeric conservation goals for FPL?

**RECOMMENDATION:** While the Commission should consider the entire record when it sets FPL's numeric DSM goals, the Commission should rely primarily on the data contained in FPL's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analyses for gas substitution. Pursuant to Issues 27 and 28, FPL should obtain better data on the end-use of natural gas through demonstration projects. [SHINE]

**POSITION OF PARTIES**

**FPL:** FPL's planning process and the underlying data and analyses in FPL's Technical Market Potential Results Report, FPL's Cost-Effectiveness Goals Results Report, FPL's CUE Measures Evaluations, FPL's Gas Measures Evaluations and the testimony of E.G. Hugues, S.R. Sim, S.E. Frank, S.W. Hulett, K.M. Davis and J.H. Landon are the most appropriate data and analyses to use to establish FPL's conservation goals. Mr. McDonald unequivocally stated that FPL's analysis rather than the SRC study should be used to establish FPL's goals, and no party has offered superior data or analyses.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in this docket.

**DCA:** Except for data on solar and natural gas applications, the data and analyses contained in FPL's CEGRR. The data and results presented in the SRC Report and the Goodman Jobs Report should be used in conjunction with this information. The Commission should defer to the solar and natural gas industries for the data and information needed to evaluate applications in these industries.

**DOE:** No Position.

**LEAF/EVANS:** The SRC data and other evidence cited in LEAF-EVANS' Brief.

**FCC:** The data and analysis that should be used by the Commission in setting conservation goals for FPL are presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on this issue. Costs for conservation programs should be allocated to prevent inequitable rate increases.

**FlaSEIA:** The Commission should base its decision on all of the information and data which has been entered into the record at the time of the evidentiary hearing. This would include close examination and consideration of the report on the overall statewide conservation potential prepared by Synergic Resources Corporation (SRC Report) on the behalf of the Florida Energy Office. With regards to the technical potential of solar energy applications, the Commission should consult the information provided by FlaSEIA witnesses given the limited scope of information on solar energy used in the SRC Report.

**CITY GAS:** As to natural gas substitution, FPL should use data and analysis formulated in conjunction with the natural gas industry and based on the results of demonstration projects.

**PEOPLES:** The analyses of achievable potential demand and energy savings presented by Peoples' witness Krutsinger are most appropriate for establishing goals for natural gas substitution for electricity by FPL in Peoples Gas System's service area.

**WFNG:** Agree with Peoples Gas.

**FIPUG:** No position.

**CEPA:** FPL has the modeling capability to prepare an integrated resource plan. In order to do so it would have to make the following fundamental changes in methodology: 1) model demand and supply side options simultaneously on an integrated basis; 2) not "force" units into the plan; and 3) "unbundle" DSM programs whose life was less than the planning horizon. Unless these changes are made, FPL's process is suboptimal.

**FECA:** No position

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not limit the information available to it in establishing FPL's conservation goals. The decision on FPL's goals should be made from consideration of the entire record. Staff believes the more information at hand the better. However, the Commission should rely primarily on the data contained in FPL's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analyses for gas substitution.

If the Commission wishes to set achievable goals which incorporate the utility's planning process analysis as referenced in Rule 25-17.0021(3) it should reject SRC's Best Practices scenario and use all remaining data and analysis. Various intervening parties advocate the use of Exhibit 90, an updated version summarizing SRC's Best Practice goal for each investor owned utility. The Best Practices scenario contains some very optimistic assumptions such as the removal of all investment cost barriers to conservation, and was initially portrayed by SRC as an upper bound of what could be achieved if money were no object and conservation was sold door to door. (Tr. 2818, 4297)

Staff does not recommend this approach, as SRC's Best Practices scenario would not establish meaningful numeric goals due to the lack of utility specific planning information. Demand savings through 2003 based on the Best Practices, 2120 MW, exceed FPL's resource needs of 1646 MW through 2003. (Tr. 4297) DCA witness McDonald, the principal in charge of the SRC study, agreed that a utility specific analysis with assumptions specific to its service territory would be a more accurate estimate of the cost-effective potential than the more generalized SRC study. (Tr. 2722-24)

LEAF, DCA, FCC, and FlaSEIA all believe Best Practices based goals should be adopted while looking at the rate impacts during program design. However, none of these parties provided the rate impacts nor requested a utility to perform this analysis. Consequently, there is no information in the record regarding the rate impacts of the Best Practices scenario.

On the other hand, if the Commission wishes to set aspirational numeric goals which it may or may not believe can be achieved cost-effectively, it could incorporate the data and analysis from SRC's best practices scenario. However, aspirational goals have no consequences, and they should not be considered mandatory as stated by Mr. McDonald. These goals should not be used for any penalty/reward, or used in a power plant site need determination. Mr. McDonald testified that the Commission should use the SRC best practices scenarios contained in Exhibit 90 as a benchmark, and to give closer scrutiny if the utility's planning results are not within 20 percent of SRC's results. (Tr. 2730)

**ISSUE 3:** Are FPL's proposed goals based upon an adequate assessment of the market segments and major end-use categories pursuant to Rule 25-17.0021 (3), F.A.C.?

**RECOMMENDATION:**  Yes. FPL's proposed goals resulted from an adequate assessment and evaluation of the DSM measures, and the Code Utility Evaluation (CUE) measures, with the exception of the natural gas substitution measures. Pursuant to Issues 27 and 28, FPL should obtain better data on the end-use of natural gas through demonstration projects. [SHINE]

**POSITION OF PARTIES**

**FPL:** Yes. FPL's extensive assessment of its technical and achievable DSM potential was based on the most recent FPL-specific data available. It is far more comprehensive than the SRC study (217 DSM options versus SRC's 110), including options in each of the market segments and end-uses in Rule 25‑17.0021(3). FPL's assessment follows procedural guidelines for analyzing UP, CUE and gas measures, and Mr. McDonald acknowledged that FPL's study updating for measured results, technology improvements, new avoided costs and more recent rates was superior to the SRC study.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in this docket.

**DCA:** No. FPL has neither adequately assessed nor proposed individual goals for, the market segments of new construction, low-income, solar and natural gas substitution, nor has its process allowed adequate assessment of major end-use categories.

**DOE:** No Position.

**LEAF/EVANS:** No. FPL paid little attention to addressing specific markets and end-uses, including the important new construction market. FPL only found cost-effective new construction measures in residential and commercial HVAC, load management, and C/I motors. Thus, FPL's planning approach led to goals that do not address savings opportunities for many significant residential end uses. FPL also failed to address DSM pricing measures and it screened for average use, without evaluating potential savings in niche markets.

**FCC:** FPL's proposed goals are not based upon an adequate assessment of the market segments and major end-use categories listed in Rule 25-17.0021(3), F.A.C., for the reasons presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on these issues.

**FlaSEIA:** No. FPL's proposed goals fail to incorporate any measures in such end-use categories as lighting and water heating. In addition, FPL's analysis excludes a wide range of DSM measures in the HVAC and appliance end-use categories. FPL's proposed goals also exclude solar energy, natural gas, new construction, and low-income DSM measures.

**CITY GAS:** No. As discussed in Issue 1, FPL has failed to properly assess the potential for natural gas substitution. Therefore, its goals are not based on an adequate assessment of market segments and end-use categories as applicable to natural gas substitution.

**PEOPLES:** No. Specifically, FPL's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures.

**WFNG:** No.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The purpose of Rule 25-17.0021(3), F.A.C. was in part to require the utilities in the proceeding to establish goals, to assess the listed end-uses in the residential and commercial/industrial sectors. These end-uses encompass all electricity consuming areas of a residence and a commercial/industrial facility. This provision of the rule ensures the goals set are the result of an assessment of a comprehensive list of DSM measures.

FPL evaluated a total of 217 measures, the entire list of potential utility programs (UP) as directed by Order No. PSC-93-1679-PCO-EG, and individual utility specific measures. (Ex. 3) FPL evaluated the residential measures in single family, multi-family and mobile home segments. (Ex. 16) Additionally, commercial/industrial measures were evaluated in three different building types. (Ex. 16) FPL evaluated new and existing construction in accord with Order No. PSC-93-1679-PCO-EG. FPL also evaluated natural gas measures and measures which were identified for possible inclusion in the building code. (Tr. 4278)

Staff believes that in the preparation of its proposed goals, FPL adequately assessed the end-uses listed in the rule, except for natural gas substitution measures. See Issues 27 and 28 for a discussion of the natural gas substitution measures. FPL's evaluation of all the measures mentioned in the previous paragraph constitutes an adequate assessment.

Although staff believes that FPL performed an adequate assessment, the RIM cost-effectiveness results for residential and C/I water heating measures are perplexing. No RIM cost-effective opportunities were identified in the water heating market. (Ex. 3 p. 37, 39) The primary reason for this result is the impact of lost revenues associated with reduced water heating energy consumption and the use of average levels of consumption. (Tr. 723, 4492) Mr. Hugues did acknowledge that there may be some measures that would be cost-effective if subsets of the market were analyzed. (Tr. 4288) It is interesting to note that FPL has historically been involved in this market segment with DSM programs for alternate source water heating measures such as heat recovery units and solar water heaters. However, the company plans to petition the Commission to eliminate existing ECCR programs which address the peak demand and energy usage of this end use segment. (Tr. 728)

**FPC's Methodology/Process**

**ISSUE 4:** Is the planning process and data used by FPC in evaluating demand side measures reasonable?

**RECOMMENDATION:**  Yes. [HAFF]

**POSITION OF PARTIES**

**FPL:** No position

**FPC:** Yes. FPC's planning process uses an Integrated Resource Planning method which complies with the National Energy Policy Act (EPACT) and with Commission Procedural Orders 1 and 4 in this docket. FPC's planning process, upon which its filings are based, relied on supply-side data based upon current analyses of FPC's system and the latest forecast of system energy and demand requirements. Demand-side data incorporates SRC data, modified where necessary to be compatible with FPC's service territory.

**GULF:** No position

**TECO:**  Did not intervene in this docket.

**DCA:** No. the Department is concerned that the avoided costs used in their process do not include the full system cost impacts of DSM programs. In addition, the Department would encourage the consideration of non quantifiable benefits of DSM to Florida's environment and economy. However, FPC's TRC potential seems to provide a reasonable estimation of the achievable potential in their territory.

**DOE:** No Position.

**LEAF/EVANS:** Yes. For the most part, LEAF has stipulated to the general reasonableness of FPC's planning process except that FPC optimized for system average rate rather than total system costs.

**FCC:** The planning process and data of FPC are not reasonable for the reasons presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on this issue.

**FlaSEIA:** No. FPC's planning process is not reasonable because it fails to conform to the standards outlined in Section 111 of the Energy Policy Act of 1992. In particular, FPC's planning process: uses an optimization procedure based upon minimum average system rates rather than lowest system costs; fails to consider a full range of supply side resources which include solar energy, purchased power, cogeneration, and fuel substitution; and underestimates avoided costs.

**CITY GAS:** City Gas has no specific comments on FPC's planning process and data but questions the reliability of a process which finds so little potential for natural gas substitution measures.

**PEOPLES:** No. Specifically, FPC's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures.

**WFNG:** No, because FPC has failed to adequately consider natural gas measures.

**FIPUG:** No position.

**CEPA:** The planning process used by FPC appears to be reasonable.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:**  No position.

**TALLAHASSEE:** Tallahassee believes, based on the information available to it as a party to this docket, that FPC has used a reasonable process with acceptable data to evaluate DSM alternatives.

**CEED:** No position.

**STAFF ANALYSIS:** The first step in FPC's planning process was to identify the avoided unit to which potential demand-side measures are compared for cost-effectiveness. This was done by first "freezing" existing levels of DSM, which means that no DSM programs were added or removed from FPC's existing plan and no new participants were added to existing programs. FPC then determined its future resource plan, strictly a supply-side plan. The first generating unit in that plan was FPC's avoided unit.

FPC then analyzed all of the measures characterized as "utility program" (UP) measures by the Commission's Fourth Order Establishing Procedure (Order No. PSC-93-1679-PCO-EG, November 19, 1993). All UP measures that passed the Participant and RIM tests were compared against supply-side measures for inclusion in FPC's resource plan.

A major point of contention in the hearing was the cost-effectiveness methodology used by the utilities to evaluate demand-side measures. In FPC's planning process, a demand-side measure is cost-effective only if it produces a lower rate impact for than a competing supply-side resource -- that is, the measure passes the Rate Impact Measure (RIM) test. LEAF, FCC, FlaSEIA, and DCA advocate use of the Total Resource Cost (TRC) test over RIM.

LEAF generally agreed that FPC's planning process and the resulting data are reasonable and appropriate for use in setting numeric conservation goals. LEAF's only objection to FPC's planning process was that FPC screened DSM programs with the RIM test rather than TRC.

Staff disagrees with FlaSEIA's position that FPC's planning process is not reasonable because it fails to conform to Section 111 of the Energy Policy Act of 1992 (EPAct). Not only is there uncertainty surrounding the meaning of Section 111, there is no requirement that the utilities adopt it. Staff particularly disagrees with three of FlaSEIA's assertions:

1.That FPC's planning process failed to consider purchased power.

FPC purchases firm capacity, through short-term and long-term contracts, from the Southern Company. (Ex. 39) These and other firm purchases are projected to decline over the next ten years because there will be less capacity available from FPC's neighbors to purchase.

2.That FPC's planning process failed to consider cogeneration.

FPC currently purchases 473 MW of firm capacity from cogenerators, and has contracted to purchase an additional 661 MW of firm capacity over the next ten years (Ex. 39) This fact suggests that FPC has substantially considered cogeneration.

3.That FPC's planning process underestimates avoided costs.

FPC identified a 165 MW advanced combustion turbine unit as the next needed unit in its supply-side only plan. (Ex. 42) The installed cost of the avoided unit has decreased substantially over the past couple of years, from $389/KW to $252/KW. (Tr. 1112) Witness Niekum attributed this cost reduction to competition in the generation supply market. Given that the cost of the avoided unit has dropped, so has FPC's avoided cost. This fact illustrates that FPC reasonably estimated avoided costs.

Staff disagrees with the positions of FCC and DCA that FPC's planning process is not reasonable because it did not use the TRC test in screening DSM measures. DCA also believes that FPC should consider the "non-quantifiable" benefits of DSM to Florida's economy. (Tr. 2037, 2077-8, 2964-5) This position contradicts Rule 25-17.002, Florida Administrative Code, which explicitly states the conditions under which DSM programs are approved. The effects of these non-quantifiable benefits on a utility measure's cost-effectiveness cannot be determined under any test.

By using the RIM test, FPC assures that its DSM measures will result in the lowest possible rates. This is seen by electric utilities as enhancing their ability to compete as the utility industry becomes more competitive. Staff views FPC's use of the RIM test as reasonable. For this reason and for the other reasons discussed above, Staff recommends that the planning process and data used by FPC in evaluating demand side measures is reasonable.

**ISSUE 5:** What data and analyses are most appropriate for use by the Commission in establishing appropriate numeric conservation goals for FPC?

**RECOMMENDATION:**  While the Commission should consider the entire record when it sets FPC's numeric DSM goals, the Commission should rely primarily on the data contained in FPC's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analysis for gas substitution. Pursuant to Issues 35 and 36, FPC should obtain better data on the end-use of natural gas through demonstration projects. [HAFF]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** The data and analyses contained in FPC's Cost Effectiveness Goal Results Report (CEGRR) filing and its accompanying appendix, as explained through the testimony of FPC's witnesses, are the most appropriate data and analyses for use by the Commission in establishing appropriate numeric conservation goals for FPC.

**GULF:** No position.

**TECO:** Did not intervene in this docket.

**DCA:** Except for data on solar and natural gas applications, the data and analyses contained in FPC's CEGRR. The data and results presented in the SRC Report and the Goodman Jobs Report should be used in conjunction with this information. The Commission should defer to the solar and natural gas industries for the data and information needed to evaluate applications in these industries.

**DOE:** No Position.

**LEAF/EVANS:** LEAF does not contest FPC's data and analyses; however, LEAF contends FPC's goals should be set using TRC-based potential.

**FCC:** The data and analysis that should be used by the Commission in setting conservation goals for FPC are presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on this issue. Costs for conservation programs should be allocated to prevent inequitable rate increases.

**FlaSEIA:** The Commission should base its decision on all of the information and data which has been entered into the record at the time of the evidentiary hearing. This would include close examination and consideration of the report on the overall statewide conservation potential prepared by Synergic Resources Corporation (SRC Report) on the behalf of the Florida Energy Office. With regards to the technical potential of solar energy applications, the Commission should consult the information provided by FlaSEIA witnesses given the limited scope of information on solar energy used in the SRC Report.

**CITY GAS:** City Gas has no specific comments on FPC's data and analyses but questions the reliability of an analysis which finds so little potential for natural gas substitution measures.

**PEOPLES:** The analyses of achievable potential demand and energy savings presented by Peoples' witness Krutsinger are most appropriate for establishing goals for natural gas substitution for electricity by FPC in Peoples Gas System's service area.

**WFNG:** West Florida Natural Gas questions the reliability of FPC's analyses because they result in conclusions indicating relatively little potential for natural gas substitution measures. West Florida believes that the Commission should consider all data and analyses presented in this docket, including FPC's CEGRR and the analyses of potential demand and energy savings from natural gas substitution measures presented by Peoples' witness Krutsinger.

**FIPUG:** No position.

**CEPA:** CEPA has no specific comments on FPC's data and analyses but questions the reliability of analyses which show so few supply side alternatives as cost effective when compared to their demand-side counterparts.

**FECA:** No. position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** Tallahassee believes that data and evaluations performed by FPC, based on its understanding of the economic and reliability impact of a given set of demand-side measures, should form the basis for any goal setting efforts by the Commission.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not limit the information available to it in establishing FPC's conservation goals. The decision on FPC's goals should be made from consideration of the entire record. Staff believes the more information at hand the better. However, the Commission should rely primarily on the data contained in FPC's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analyses for gas substitution.

If the Commission wishes to set achievable goals which incorporate the utility's planning process analysis as referenced in Rule 25-17.0021(3) it should reject SRC's Best Practices scenario and use all remaining data and analysis. Various intervening parties advocate the use of Exhibit 90, an updated version summarizing SRC's Best Practice goal for each investor owned utility. The Best Practices scenario contains some very optimistic assumptions such as the removal of all investment cost barriers to conservation, and was initially portrayed by SRC as an upper bound of what could be achieved if money were no object and conservation was sold door to door. (Tr. 2818, 4297)

Staff does not recommend this approach, as SRC's Best Practices scenario would not establish meaningful numeric goals due to the lack of utility specific planning information. DCA witness McDonald, the principal in charge of the SRC study, agreed that a utility specific analysis with assumptions specific to its service territory would be a more accurate estimate of the cost-effective potential than the more generalized SRC study. (Tr. 2722-24)

LEAF, DCA, FCC, and FlaSEIA all believe Best Practices based goals should be adopted while looking at the rate impacts during program design. However, none of these parties provided the rate impacts nor requested a utility to perform this analysis. Consequently, there is no information in the record regarding the rate impacts of the Best Practices scenario.

On the other hand, if the Commission wishes to set aspirational numeric goals which it may or may not believe can be achieved cost-effectively, it could incorporate the data and analysis from SRC's best practices scenario. However, aspirational goals have no consequences, and they should not be considered mandatory as stated by Mr. McDonald. These goals should not be used for any penalty/reward, or used in a power plant site need determination. Mr. McDonald testified that the Commission should use the SRC best practices scenarios contained in Exhibit 90 as a benchmark, and to give closer scrutiny if the utility's planning results are not within 20 percent of SRC's results. (Tr. 2730)

**ISSUE 6:** Are FPC's proposed goals based upon an adequate assessment of the market segments and major end-use categories pursuant to Rule 25-17.0021(3), F.A.C.?

**RECOMMENDATION:**  Yes. FPC's proposed goals resulted from an adequate assessment and evaluation of the DSM measures, and the Code Utility Evaluation (CUE) measures, with the exception of the natural gas substitution measures. Pursuant to Issues 35 and 36, FPC should obtain better data on the end-use of natural gas through demonstration projects. [HAFF]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** Yes. FPC considered over 110 different measures within multiple end-use categories, covering residential, commercial and industrial applications for both new and existing structures.

**GULF:** No position.

**TECO:** Did not intervene in this docket.

**DCA:** No. FPC has not adequately assessed, nor proposed individual goals for, the market segments of new construction, low-income, solar and natural gas substitution.

**DOE:** No Position.

**LEAF/EVANS:** No position.

**FCC:** FPC's proposed goals are not based upon an adequate assessment of the market segments and major end-use categories listed in Rule 25-17.0021(3), F.A.C., for the reasons presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on these issues.

**FlaSEIA:** No. FPC's proposed goals do not include measures directed at solar energy, natural gas, and new construction end-uses. FPC's proposed goals also exclude measures for the low-income market segment.

**CITY GAS:** No. FPC has failed to properly assess the potential for natural gas substitution. Therefore, its goals are not based on an adequate assessment of market segments and end-use categories as applicable to natural gas substitution.

**PEOPLES:** No. Specifically, FPC's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures.

**WFNG:** No, because FPC has failed to adequately consider natural gas measures.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** Tallahassee believes that FPC's proposed goals are reasonable, based on the information available to Tallahassee as a party to this docket.

**CEED:** No position.

**STAFF ANALYSIS:** FPC analyzed over 110 measures contained in the SRC Report to determine its technical market potential of the measures. These measures cover multiple market segments and end-use categories (residential/commercial/industrial, new and existing structures). Furthermore FPC evaluated the cost-effectiveness of all measures classified as potential utility programs (UP) in Order No. PSC-93-1679-PCO-EG, issued November 19, 1993. (Ex. 37) FPC also analyzed the natural gas substitution measures. (Ex. 36)

As discussed in Issues 35 and 36, staff believes that FPC did not adequately assess natural gas substitution measures. FPC should obtain better data on end-use natural gas substitution measures through demonstration projects. With this exception, staff believes that FPC adequately assessed the major end-use categories contained in Rule 25-17.0021(3), F.A.C.

**GULF's Methodology/Process**

**ISSUE 7:** Is the planning process and data used by GULF in evaluating demand side measures reasonable?

**RECOMMENDATION:** No. [TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** Yes. Gulf uses an integrated resource planning process which appropriately includes consideration of both demand and supply side measures. The data regarding specific demand side measures used in Gulf's evaluations represents the best information which was available to the Company at the time submitted, given the time constraints of this proceeding.

**TECO:** Did not intervene in this docket.

**DCA:** No. The avoided costs used in their process do not include the full system cost impacts of DSM programs and supply alternatives. The process also does not consider other societal benefits to Florida's environment and economy from DSM programs.

**DOE:** No Position.

**LEAF/EVANS:** No. In fact, GULF acknowledged that its analysis was "preliminary". The process was inadequate because GULF evaluated individual measures rather than combinations of measures (programs) that are cost-effective when combined. GULF improperly deducted 30% of RIM achievable potential from its RIM-based goals. While GULF claimed that the RIM and TRC tests are flawed, it did not present results of its "net economic benefits" test to support potential or goals. GULF falsely claimed that RIM-based goals measure "net economic benefits to customers". GULF's analysis did not include essential information which was available.

**FCC:** The planning process and data of GULF are not reasonable for the reasons presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on this issue.

**FlaSEIA:** No. Gulf's planning process is not reasonable because it fails to conform to the standards outlined in Section 111 of the Energy Policy Act of 1992. In particular, Gulf's planning process: uses an optimization procedure based upon minimum average system rates rather than lowest system costs; fails to consider a full range of supply side resources which include solar energy, purchased power, cogeneration and fuel substitution; and underestimates avoided costs.

**CITY GAS:** City Gas has no specific comments on GULF's planning process and data but questions the reliability of an analysis which finds no potential for natural gas substitution measures.

**PEOPLES:** No. Specifically, Gulf's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures.

**WFNG:** No, because GULF has failed to consider natural gas measures.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** It appears that the planning process utilized by GULF is deficient. The incremental savings from GULF's existing programs were included in its base case plan. This results in the existing programs being retained in the base case and integrated plan. This causes existing programs to be winners by default and may reduce the cost-effectiveness of other measures. The other IOU's properly removed the effects of incremental DSM savings from the base case analyses. In addition, the incremental savings from GULF's existing programs were not included in its proposed goals. (Tr. 1282) Therefore, GULF's planning process is deficient in at least these two respects.

In addition GULF's analysis of the DSM measures was contradictory at best. GULF did not model interactive effects among measures, or bundle direct load control measures. Modelling measures independently could have the effect of a higher goals, while not bundling direct load control measures could result in lower goals. GULF's witness Kilgore also stated "as I answered earlier, we did not explicitly analyze those interactive effects..." (Tr. 1250)

Additionally, GULF incorrectly used some of its data. In staff's cross-examination of Mr. Kilgore, he indicated that certain pages were missing from Exhibit 52 which was the CEGRR summary. (Tr. 1291) Also certain data inputs to the CEGRR filing were incorrect which was addressed in cross-examination of Mr. Kilgore where he stated that "for that measure, that was an error on the input." (Tr. 1295) GULF also used a different coding system identifying the DSM measures which expanded upon the SRC coding system.

Finally, even though the first procedural order required that the utilities present results broken down between residential and commercial/industrial classes, GULF presented only a total number for both classes over the planning horizon. (Ex. 45)

**ISSUE 8:** What data and analyses are most appropriate for use by the Commission in establishing appropriate numeric conservation goals for GULF?

**RECOMMENDATION:** While the Commission should consider the entire record when it sets GULF's numeric DSM goals, staff proposes adjustments to GULF's data in order to compensate for the deficiencies in GULF's planning process. Pursuant to Issues 43 and 44, GULF should obtain better data on the end-use of natural gas through demonstration projects. [TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** The data and analysis utilized by Gulf in preparing its Cost Effectiveness Goals Results Report. This data and analysis represents the best, and most realistic, information which was available for application in Gulf's service area at the time of filing, and should be utilized by the Commission in establishing the Company's numeric conservation goals.

**TECO:** Did not intervene in this docket.

**DCA:** Except for data on solar and natural gas applications, the data and analyses contained in Gulf's CEGRR. The data and results presented in the SRC Report and the Goodman Jobs Report should be used in conjunction with this information. The Commission should defer to the solar and natural gas industries for the data and information needed to evaluate applications in these industries.

**DOE:** No Position.

**LEAF/EVANS:** The SRC data and data and analyses cited in LEAF/EVANS' brief.

**FCC:** The data and analysis that should be used by the Commission in setting conservation goals for GULF are presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on this issue. Costs for conservation programs should be allocated to prevent inequitable rate increases.

**FlaSEIA:** The Commission should base its decision on all of the information and data which has been entered into the record at the time of the evidentiary hearing. This would include close examination and consideration of the report on the overall statewide conservation potential prepared by Synergic Resources Corporation (SRC Report) on the behalf of the Florida Energy Office. With regards to the technical potential of solar energy applications, the Commission should consult the information provided by FlaSEIA witnesses given the limited scope of information on solar energy used in the SRC Report.

**CITY GAS:** As to natural gas substitution, Gulf should use data and analysis formulated in conjunction with the natural gas industry and based on the results of demonstration projects.

**PEOPLES:** Agree with West Florida Natural Gas.

**WFNG:** West Florida Natural Gas questions the reliability of Gulf's analyses because they indicate basically no potential for natural gas substitution measures. West Florida tentatively believes that the Commission should consider all evidence introduced into the record of this proceeding, including particularly the SRC final report.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not limit the information available to it in establishing GULF's conservation goals. The decision on GULF's goals should be made from consideration of the entire record. Staff believes the more information at hand the better. However, the Commission should adjust GULF's data in order to compensate for the deficiencies in GULF's planning process. In addition, pursuant to Issues 43 and 44, GULF should obtain better data on the end-use of natural gas.

If the Commission wishes to set achievable goals which incorporate the utility's planning process analysis as referenced in Rule 25-17.0021(3) it should reject SRC's Best Practices scenario and use all remaining data and analysis. Various intervening parties advocate the use of Exhibit 90, an updated version summarizing SRC's Best Practice goal for each investor owned utility. The Best Practices scenario contains some very optimistic assumptions such as the removal of all investment cost barriers to conservation, and was initially portrayed by SRC as an upper bound of what could be achieved if money were no object and conservation was sold door to door. (Tr. 2818, 4297)

Staff does not recommend this approach, as SRC's Best Practices scenario would not establish meaningful numeric goals due to the lack of utility specific planning information. DCA witness McDonald, the principal in charge of the SRC study, agreed that a utility specific analysis with assumptions specific to its service territory would be a more accurate estimate of the cost-effective potential than the more generalized SRC study. (Tr. 2722-24)

LEAF, DCA, FCC, and FlaSEIA all believe Best Practices based goals should be adopted while looking at the rate impacts during program design. However, none of these parties provided the rate impacts nor requested a utility to perform this analysis. Consequently, there is no information in the record regarding the rate impacts of the Best Practices scenario.

On the other hand, if the Commission wishes to set aspirational numeric goals which it may or may not believe can be achieved cost-effectively, it could incorporate the data and analysis from SRC's best practices scenario. However, aspirational goals have no consequences, and they should not be considered mandatory as stated by Mr. McDonald. These goals should not be used for any penalty/reward, or used in a power plant site need determination. Mr. McDonald testified that the Commission should use the SRC best practices scenarios contained in Exhibit 90 as a benchmark, and to give closer scrutiny if the utility's planning results are not within 20 percent of SRC's results. (Tr. 2730)

**ISSUE 9:** Are GULF's proposed goals based upon an adequate assessment of the market segments and major end-use categories pursuant to Rule 25-17.0021 (3), F.A.C.?

**RECOMMENDATION:** No. [TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** Yes.

**TECO:** Did not intervene in this docket.

**DCA:** No. FPL has not adequately assessed, nor proposed individual goals for, the market segments of new construction, low-income, solar and natural gas substitution.

**DOE:** No Position.

**LEAF/EVANS:** No. GULF introduced no credible evidence on this issue.

**FCC:** GULF's proposed goals are not based upon an adequate assessment of the market segments and major end-use categories listed in Rule 25-17.0021(3), F.A.C., for the reasons presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on these issues.

**FlaSEIA:** No. Gulf's proposed goals do not include measures directed at solar energy, natural gas, and new construction end-uses. Gulf's proposed goals also exclude measures for the low-income market segment

**CITY GAS:** City Gas has no specific comments on GULF's proposed goals but questions the reliability of an analysis which finds no potential for natural gas substitution measures.

**PEOPLES:** No. Specifically, Gulf's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures.

**WFNG:** No, because GULF has failed to consider natural gas measures.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The purpose of Rule 25-17.0021(3), F.A.C. was in part to require the utilities, in the proceeding to establish goals, to assess the listed end-uses in the residential and commercial/industrial sectors. These end-uses encompass all electricity consuming areas of a residence and a commercial/industrial facility. The provision of the rule ensures the goals set are the result of an assessment of a comprehensive list of DSM measures.

The only assessment of the market segments and major end-use categories by GULF took place during the TMPRR period of this docket. After that time, GULF did not present any data or analyses that met the requirements of the rule. GULF's proposed goals were presented by GULF's witness Kilgore as a total number in exhibit 45. These numbers do not include a break down between residential and commercial/industrial, nor did exhibit 45 provide a further breakdown within the residential and commercial/industrial market segments to reflect existing and new construction as required by the rule. In addition, GULF did not further break down into the major end-use categories as required by the rule.

**TECO's Methodology/Process**

**ISSUE 10:** Is the planning process and data used by TECO in evaluating demand side measures reasonable?

**RECOMMENDATION:** Yes. [FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** Yes. Tampa Electric used the data prescribed in each one of the Commission's procedural orders and that data is clearly adequate. It follows that the planning process and data used by Tampa Electric in evaluating demand side measures was reasonable. As explained in Point IV of the Argument portion of Tampa Electric's Brief and Post-Hearing Statement, the company's IRP process achieves the intent of the Energy Policy Act of 1992. Tampa Electric relied upon SRC to provide updated data which were then used by Tampa Electric to estimate the highest number of participants (greatest potential demand and energy savings) without regard to estimate errors and freeriders in the calculation of cost-effectiveness. (Tr. 1445)

**DCA:** No. The avoided costs used in their process do not include the full system cost impacts of DSM programs and supply alternatives. TECO witness Hernandez admitted that TECO did not take into account the impact of T&D costs outside a five year window. (Tr. 1358-59) The consideration of such costs would result in the implementation of more cost effective DSM. TECO's process also does not consider other societal benefits to Florida's environment and economy from DSM programs.

**DOE:** No Position.

**LEAF/EVANS:** Not entirely. Although many aspects of TECO's planning were reasonable, savings potentials were understated due to several unreasonable assumptions and adjustments. TECO unreasonably discounted some of its achievable potential by 20% to propose goals. TECO unreasonably assumed that all existing plant, including 1950's vintage plants, would operate through 2024. TECO ignored DSM transmission/distribution benefits after 1997. TECO did not include audit savings in its achievable potentials, ignoring measured savings from existing audit programs. TECO evaluated only measures rather than combinations of measures which may be cost-effective. TECO based its goals on RIM potential.

**FCC:** The planning process and data of TECO are not reasonable for the reasons presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on this issue.

**FlaSEIA:** No. TECO's planning process is not reasonable because it fails to conform to the standards outlined in Section 111 of the Energy Policy Act of 1992. In particular, TECO's planning process: uses an optimization procedure based upon minimum average system rates rather than lowest system costs; fails to consider a full range of supply side resources which include solar energy, purchased power, cogeneration, and fuel substitution; and underestimates avoided costs.

**CITY GAS:** City Gas has no specific comments on TECO's planning process and data but questions the reliability of process which finds no potential for natural gas substitution measures.

**PEOPLES:** No. Specifically, TECO's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** TECO contracted with Synergic Resources Corporation (SRC) to perform the analysis of the Demand Side Management (DSM) measures. (Tr. 1435) Prior to SRC performing its analyses, TECO revised the cost and savings assumptions of several of the DSM measures. Adjustments were made for more recent DSM measure cost information, and for different savings assumptions that were specific to TECO's service territory. The SRC analyses properly accounted for and treated interactive effects of competing and complementary measures.

TECO's planning process initially removed the effects of all incremental DSM in the planning period. A supply only plan was then developed against which DSM would be measured for cost-effectiveness. This step properly allowed all DSM measures analyzed, the opportunity to compete to avoid future capacity.

TECO included five years (1993-1997) of transmission and distribution (T&D) projects in calculating its avoided cost. (Tr. 1335, Ex. 58) DCA points out that no T&D project costs were considered beyond 1997 and contends that by including such costs, more cost effective DSM would be implemented. Staff questions the extent to which DSM avoids T&D. In theory, some transmission projects could be downsized due to reduced peak demand growth caused by DSM programs.

Given that TECO did analyze T&D projects in its planning process, staff believes that use of a five year planning horizon is reasonable. Because T&D, especially distribution, is driven primarily by the magnitude and location of growth, shorter term planning is reasonable. In addition, no evidence was presented showing additional potential T&D projects which TECO should have analyzed, nor the impact on the cost-effectiveness of DSM measures.

DCA also states that TECO did not consider other societal benefits from DSM programs. Pursuant to Rule 25-17.008, F.A.C., utilities and other parties may include other benefits and other costs in the calculation of the TRC test, resulting in a societal test. No party in these dockets has quantified the suggested environmental and economic benefits from DSM programs. The Department of Environmental Protection has no plans to assign costs to environmental factors in the immediate future. (Tr. 3050) Therefore the Commission has little basis upon which to consider the impacts of these effects on the cost-effectiveness of the DSM measures evaluated.

In summary, staff believes TECO's planning process and data utilized in evaluating the DSM measures was reasonable for the purposes of this docket.

**ISSUE 11:** What data and analyses are most appropriate for use by the Commission in establishing appropriate numeric conservation goals for TECO?

**RECOMMENDATION:** While the Commission should consider the entire record when it sets TECO's numeric DSM goals, the Commission should rely primarily on the data contained in TECO's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analyses of gas substitution. Pursuant to Issues 51 and 52, TECO should obtain better data on the end-use of natural gas through demonstration projects. [FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** The most appropriate data for use in establishing appropriate numeric conservation goals for Tampa Electric are the data and analyses used by Tampa Electric and supported through the testimony of Tampa Electric witnesses Hernandez and Bryant. The appropriateness of these data are discussed in detail in Points I and IV of Tampa Electric's Post-Hearing Statement and Brief.

**DCA:** Except for data on solar and natural gas applications, the data and analyses contained in TECO's CEGRR. The data and results presented in the SRC Report and the Goodman Jobs Report should be used in conjunction with this information. The Commission should defer to the solar and natural gas industries for the data and information needed to evaluate applications in these industries.

**DOE:** No Position.

**LEAF/EVANS:** The SRC data and those cited by LEAF/EVANS' brief.

**FCC:** The data and analysis that should be used by the Commission in setting conservation goals for TECO are presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on this issue. Costs for conservation programs should be allocated to prevent inequitable rate increases.

**FlaSEIA:** The Commission should base its decision on all of the information and data which has been entered into the record at the time of the evidentiary hearing. This would include close examination and consideration of the report on overall statewide conservation potential prepared by Synergic Resources Corporation (SRC Report) on the behalf of the Florida Energy Office. With regards to the technical potential of solar energy applications, the Commission should consult the information provided by FlaSEIA witnesses given the limited scope of information on solar energy used in the SRC Report.

**CITY GAS:** As to natural gas substitution, TECO should use data and analysis formulated in conjunction with the natural gas industry and based on the results of demonstration projects.

**PEOPLES:** The analyses of achievable potential demand and energy savings presented by Peoples' witness Krutsinger are most appropriate for establishing goals for natural gas substitution for electricity by TECO in Peoples Gas system's service area.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not limit the information available to it in establishing TECO's conservation goals. The decision on TECO's goals should be made from consideration of the entire record. Staff believes the more information at hand the better. However, the Commission should rely primarily on the data contained in TECO's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analyses for gas substitution.

If the Commission wishes to set achievable goals which incorporate the utility's planning process analysis as referenced in Rule 25-17.0021(3) it should reject SRC's Best Practices scenario and use all remaining data and analysis. Various intervening parties advocate the use of Exhibit 90, an updated version summarizing SRC's Best Practice goal for each investor owned utility. The Best Practices scenario contains some very optimistic assumptions such as the removal of all investment cost barriers to conservation, and was initially portrayed by SRC as an upper bound of what could be achieved if money were no object and conservation was sold door to door. (Tr. 2818, 4297)

Staff does not recommend this approach, as SRC's Best Practices scenario would not establish meaningful numeric goals due to the lack of utility specific planning information. DCA witness McDonald, the principal in charge of the SRC study, agreed that a utility specific analysis with assumptions specific to its service territory would be a more accurate estimate of the cost-effective potential than the more generalized SRC study. (Tr. 2722-24)

LEAF, DCA, FCC, and FlaSEIA all believe Best Practices based goals should be adopted while looking at the rate impacts during program design. However, none of these parties provided the rate impacts nor requested a utility to perform this analysis. Consequently, there is no information in the record regarding the rate impacts of the Best Practices scenario.

On the other hand, if the Commission wishes to set aspirational numeric goals which it may or may not believe can be achieved cost-effectively, it could incorporate the data and analysis from SRC's best practices scenario. However, aspirational goals have no consequences, and they should not be considered mandatory as stated by Mr. McDonald. These goals should not be used for any penalty/reward, or used in a power plant site need determination. Mr. McDonald testified that the Commission should use the SRC best practices scenarios contained in Exhibit 90 as a benchmark, and to give closer scrutiny if the utility's planning results are not within 20 percent of SRC's results. (Tr. 2730)

**ISSUE 12:** Are TECO's proposed goals based upon an adequate assessment of the market segments and major end-use categories pursuant to Rule 25-17.0021 (3), F.A.C.?

**RECOMMENDATION:** Yes. TECO's proposed goals resulted from an adequate assessment and evaluation of the DSM measures, and the Code Utility Evaluation (CUE) measures, with the exception of the natural gas substitution measures. Pursuant to Issues 51 and 52, TECO should obtain better data on the end-use of natural gas through demonstration projects. [FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** Yes, as explained in detail in Point IV of the Argument portion of Tampa Electric's Brief and Post-Hearing Statement. Tampa Electric's witnesses and, indeed, DCA's witness, Mr. McDonald (who was the coordinator of the entire SRC effort) as well as a number of other witnesses appearing in this proceeding concur that it would be more appropriate for the Commission to establish overall goals rather than goals allocated to various end-uses.

**DCA:** No. TECO has not adequately assessed, nor proposed individual goals for, the market segments of new construction, low-income, solar and natural gas substitution.

**DOE:** No Position.

**LEAF/EVANS:** No. Although TECO did a reasonable job of assessing potential for most end uses and market segments, it did not adequately base its goals proposals on that assessment.

**FCC:** TECO's proposed goals are not based upon an adequate assessment of the market segments and major end-use categories listed in Rule 25-17.0021(3), F.A.C., for the reasons presented in the expert testimony of M. Jane Nelson and other witnesses called by other intervenors to testify on these issues.

**FlaSEIA:** No. TECO's proposed goals do not include measures directed at solar energy, natural gas, and new construction end-uses. TECO's proposed goals also exclude measures for the low-income market segment.

**CITY GAS:** City Gas has no specific comments on TECO's proposed goals but questions the reliability of an analysis which finds no potential for natural gas substitution measures.

**PEOPLES:** No. Specifically, TECO's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The purpose of Rule 25-17.0021(3), F.A.C. was in part to require the utilities, in the proceeding to establish goals, to assess the listed end-uses in the residential and commercial/industrial sectors. These end-uses encompass all electricity consuming areas of a residence and a commercial/industrial facility. This provision of the rule ensures the goals set are the result of an assessment of a comprehensive list of DSM measures.

TECO evaluated the entire list of potential utility programs (UP) as directed by Order No. PSC-93-1679-PCO-EG. TECO evaluated the residential measures in single family, multi-family and mobile home segments. (Tr. 1441) Also, commercial/industrial measures were evaluated in ten different building types. (Tr. 1441) Measures were evaluated in new and existing construction per the order previously mentioned. TECO also evaluated natural gas measures. (Ex. 156)

Staff believes that in the preparation of its proposed goals, TECO adequately assessed the end-uses listed in the rule, except for the gas substitution measures discussed in Issues 51 and 52. Its evaluation of all the measures mentioned in the previous paragraph constitutes an adequate assessment.

**Generic Methodology/Process**

**ISSUE 13:** What is the appropriate definition of avoided cost to be used in the evaluation of demand-side management measures and the establishment of numeric conservation goals?

**RECOMMENDATION:** The Commission should not adopt a single definition of avoided cost. Each utility filing should be evaluated for reasonableness on a case-by-case basis. Also, until DEP is able to quantify externalities, they should be excluded from the definition of avoided costs. [FLOYD]

**POSITION OF PARTIES**

**FPL:** "Avoided cost" should encompass any reasonably quantifiable utility costs, necessary to meet reliability criteria, that DSM would avoid or defer. It could be capital, O&M, and fuel impacts for a new or repowered power plant, power purchases, or other DSM options. It also includes capital and O&M costs for avoided transmission and distribution facilities. FPL appropriately determined avoided costs using (1) a single avoided unit and applicable system costs for screening purposes, and (2) a series of power plant additions with applicable system costs in the integration analysis.

**FPC:** The term "avoided unit" already includes repowering and new utility or third party generation. It should not be expanded to include purchased power or third party generation since such projects are themselves developed to avoid utility supply-side measures. Transmission projects dependent on the area of the grid affected, should not be considered except as collateral costs of supply-side projects identified as avoided units. Early retirement does not "avoid" a unit, but increases the need for resources, necessitating an IRP review of all demand and supply-side options.

**GULF:** The cost that the utility would otherwise incur for capacity and energy in the absence of the demand side measure. The relative cost-effectiveness of alternatives such as "power purchases" and "third party generation" can best be determined by a comparison between the cost of those alternatives and the utility's avoided cost of its own generation additions. If such alternatives are demonstrated to be less costly than Gulf's own incremental unit cost, they will be selected and will become Gulf's avoided cost standard.

**TECO:** "Avoided cost" for use in evaluation of DSM measures and the establishment of numeric conservation goals would be that cost which the utility could reasonably expect to have to incur in the form of some other supply-side resources in the absence of the DSM measure(s) under consideration.

**DCA:** Yes. The benefits of DSM programs should include all avoidable fixed and variable cost changes in all components of the utility generation, transmission, and distribution system. Changes in the timing, magnitude, and fuel choice for all affected future resources must be explicitly considered. The record contains several examples where the utilities failed to address important components of the planning process which would impact the cost of the avoided unit.

**DOE:** "Avoided costs should: (a) include energy capacity savings, including transmission/distribution; (b) reflect both appropriate avoided base load and appropriate avoided peaking facilities. Where practicable, avoided cost analysis should consider effects of adding an incremental resource on types, size, and timing of a stream of planned resource additions.

**LEAF/EVANS:** The C/E Manual defines "avoided generating unit" as a "utility's proposed generating unit that is avoided in whole or in part by the demand-side management program" (emphasis supplied). The Chairman ordered utilities to use the C/E Manual to evaluate measures and "appropriate combinations of measures" for planning purposes. The required inputs and formulae are specified in the Manual. Use of additional tests to supplement MFRs must include documentation.

**FCC:** All relevant avoided costs have to be accounted for in order for least-cost resource planning to be possible. These avoided costs include all future supply options, including but not limited to repowering, early retirement, transmission and distribution improvements, power purchases, and new utility or third party generation. The "avoided unit" standard is insufficient for these proceedings.

**FlaSEIA:** Yes. In developing its supply side plan to develop avoided cost estimates, each of the IOUs: (1) excluded a host of potential supply side resources; (2) facilitated questionable assumptions regarding the expected retirement of existing generating units; and (3) excluded third party generation from consideration.

**CITY GAS:** No position.

**PEOPLES:** Avoided cost should encompass all future supply options, including avoided utility-constructed generating units, repowering projects, power purchases, transmission and distribution improvements, and other supply-side measures.

**WFNG:** Avoided cost should encompass all future supply options, including avoided utility-constructed generating units, repowering projects, power purchases, transmission and distribution improvements, and other supply-side measures.

**FIPUG:** The first step in determining avoided cost should be to examine the utility's load characteristics. The utility should consistently use the same criteria for establishing avoided costs. The Commission should not allow the utility to use one set of costs for programs it favors and another to avoid competition or to disadvantage competitors.

**CEPA:** Agree with DOE.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** Tallahassee believes that the "avoided unit" costs used in DSM evaluations should encompass the actual capital expenses for the selected supply-side resource, including any transmission and distribution investment that can be shown to be directly attributable to the selected resource.

**CEED:** Whatever definition the Commission adopts should not include the consideration of environmental externalities. The considera­tion of environmental externalities as part of the utility planning process is not required, nor is it desirable from an environmental or regulatory policy viewpoint.

**STAFF ANALYSIS:** No witness really provided a direct response to this issue, although several witnesses dealt with the issue indirectly or in piecemeal fashion. Testimony from Dr. Sim illustrates why a single, all-encompassing definition to be applied under all circumstances should not be attempted. He pointed out that for purposes of setting goals in this docket, there was not time to issue a bid for purchased power and, instead, used its own units as a proxy for full avoided costs. He also expressed doubt that meaningful information could have been developed from such a bid. (Tr. 252-255) Witness Hernandez had the same concern. (Tr. 1337-1338)

Some witnesses proposed that environmental externalities be included as avoided costs in the evaluation of DSM measures. (Tr. 1727, 2951) The Commission's rule on cost-effectiveness does allow for inclusion of such costs in the Societal Test (a variation of the TRC test), assuming that the costs and benefits of externalities are quantifiable. However, no witness offered any specific numbers that should have been used by the utilities in their evaluation of DSM in this proceeding. Witness Shelley admitted that "... we are in our infancy in trying to quantify in a dollar sense the cost of environmental externalities and I am not pushing very hard on that issue." (Tr. 3016) It is interesting that Florida's Department of Environmental Protection has no plans to assign costs to environmental factors in the immediate future. (Tr. 3050)

Logically, to define avoided cost, one must first define cost. Is cost to be defined as societal cost (including externalities), revenue requirements, or total cost (excluding externalities)? Should it take into account the cost for potential purchases of non-utility generated power? The planning horizon must also be defined. In addition, one would have to specify how the two plans (i.e., the plans with and without incremental DSM) would be optimized to determine the cost that would be avoided. These are not easy questions to answer. Also, as mentioned above, it is not clear that one answer is desirable in every situation. For some purposes, a cadillac may be needed, and for others, a simple horse-drawn cart will do the trick.

For these reasons, the Commission should maintain its flexibility to tailor the definition of avoided cost to the changing circumstances that utilities encounter during the planning process. Whether utilities used appropriate avoided costs in this proceeding is addressed under utility-specific issues.

**ISSUE 14:** ISSUE DELETED.

**ISSUE 15:** What cost-effectiveness test, cost-effectiveness criteria, or other criteria should the Commission use to set DSM goals?

**RECOMMENDATION:** The Commission should adopt the RIM test at the present time because the savings difference between RIM and TRC in addition to the rate impacts are negligible. However, the Commission should indicate that TRC will be the policy when it is found that the savings are large and the rate impacts are small. Programs that have large savings and small rate impacts may qualify for optional lost revenue recovery and incentives. [BALLINGER]

**POSITION OF PARTIES**

**FPL:** The Commission should only rely upon the reasonably achievable potential of DSM measures cost-effective under the Rate Impact Measure (RIM) and the Participants Tests. Measures passing RIM are cost-effective to nonparticipants. Measures passing the Participants Test are cost-effective to participating customers. Measures passing the Total Resource Cost (TRC) test but not the RIM Test are not cost-effective to nonparticipants who, for most any given measure, far exceed participants. Therefore, to avoid creating DSM losers, the RIM and Participants Tests should be used to set DSM goals.

**FPC:** In setting DSM goals, the Commission should consider programs that passed the RIM and Participant tests (which, by definition, also pass the TRC test).

Only the Participant and RIM tests can assure cost-effective conservation measures which do not also harm non-participants. Use of TRC alone causes non-participants to cross-subsidize the savings opportunities for participants and can result in both higher rates *and* higher bills for ratepayers in general. This is especially inappropriate in an atmosphere of increasing utility competition.

**GULF:** The Commission should utilize the Rate Impact Measure (RIM) test for cost-effectiveness. While neither RIM nor TRC provide conclusive cost-effectiveness results under all market conditions, of these two tests, the RIM test is more likely to yield the correct result under a wider variety of market conditions.

**TECO:** The Commission should rely upon the rate impact measurement (RIM) test in setting DSM goals. No DSM measure should be adopted if it does not pass the RIM test. Absent the use of this test, electric customers will pay more than they should. Mr. McDonald testified that a program which passes the TRC test but does not pass the RIM test will result in higher rates for all electric customers. (Tr. 2744-2745) The protections which the RIM test afford electric customers are discussed in detail in Points I and II of Tampa Electric's Post-Hearing Statement and Brief.

**DCA:** The TRC is the appropriate method for the Commission to use to set DSM goals. The TRC test will result in more conservation programs being implemented than under the RIM test, and thus, provide more benefits to the citizens of the state of Florida. The opponents of the TRC method argued that emerging competition in the electric utility industry, cross subsidization between ratepayers, and higher rates were their major reasons for opposing the TRC test. The evidence in the record indicates that these concerns are significantly over stated.

**DOE:** The RIM test generally should not be used to test DSM programs' cost-effectiveness. It can rule out many options that would be cost-effective in minimizing energy bills. Tests like the TRC and the societal cost test are typically more appropriate for determining DSM programs' cost-effectiveness.

**LEAF/EVANS:** The TRC Societal Test should be the primary cost-effectiveness criterion. Goals should be "reasonably-achievable", based on SRC data. Goals rules should be applied so as to enhance job-producing economic growth by reducing customer bills below levels which would result without meeting the goals. Other criteria include: protection of the health, prosperity and general welfare of Florida and its citizens; provision of safe, adequate, reliable and efficient energy service; fair and reasonable rates; and implementation of State Energy Policy.

**FCC:** The Commission should use the total resource cost criteria and the most cost efficient program practices to set energy conservation goals. Forgone employment opportunities, and environmental impacts, also are costs that are born by utility customers, and so should be recognized and reallocated upon an equitable basis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** The Commission should use the TRC test except when selected measures are explicitly promoted by statute, like solar. In instances where certain resources, like solar energy, have been explicitly promoted by the Legislature, the Commission should focus on life-cycle costs and benefits to the consumer as its standard for cost-effectiveness.

**CITY GAS:** The Commission should use the RIM test to set DSM goals.

**PEOPLES:** The Commission should consider all cost-effectiveness tests, including the Participant Test, the Rate Impact Test, the Total Resource Cost Test, and the Societal Benefit-Cost Test, without prescreening.

**WFNG:** Agree with Peoples Gas.

**FIPUG:** The Commission should use the RIM test to set DSM goals.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** Whatever tests or criteria the Commission adopts should not include the consideration of environmental externali­ties. The consideration of environmental externalities as part of the utility planning process is not desirable from an environmental or regulatory policy viewpoint.

**STAFF ANALYSIS:** The problem with TRC is that customers who do not participate in a utility DSM measure subsidize the customers who do participate. Most parties agree that the benefits of DSM should be the deferral or avoidance of power plants, which comes primarily from savings of peak demand, or the conservation of natural resources and/or reduced emissions, which comes primarily from reductions in energy consumption. (Tr. 797, 798, 1084, 1327, 1329)

From a demand savings perspective, an increase in DSM measures to include both RIM and TRC measures resulted in little or no change to FPL's generation expansion plans. (Ex. 3) In FPL's case, the change in the generation expansion plan from RIM to TRC results in the deferral of a combined cycle unit one to two years. (Ex. 3) This is not significant since combined cycle units are designed for construction flexibility in order to minimize capital expenditures.

Also, each utility was asked to perform a sensitivity on the projected amounts of emissions under either a RIM or a TRC scenario. These sensitivity studies suggest that TRC measures will not significantly change emissions from what can be obtained through RIM measures. (Ex. 12) The reason for this is twofold. First, when energy usage declines, older units may operate at a less efficient level and hence, produce more emissions. Second, most utilities are planning on gas fired units as the next generation addition. These are relatively clean burning and cause older, less efficient units to run less or even shut down completely. This means that sometimes any DSM activity, whether it be a RIM or a TRC measure, can cause emissions to increase. (Ex. 12)

The cumulative rate impacts between TRC and RIM appear small. (Ex. 37, 48, 64) (Tr. 52-60) This is more than likely caused by the fact that the utilities generation expansion plans did not significantly change under either the RIM or TRC scenarios. However, even a slight rate increase can have dramatic effects on revenue requirements. For example, FPL's average rate increase of 0.06 cents/kWh would result in a $500 million in 1994. (Tr. 56)

The Participant, RIM, TRC tests all provide useful data. The Commission recognized this when it adopted Rule 25-17.0021(4)(j), F.A.C. Since the benefits of adopting a TRC goal seem minor, i.e. few additional power plants deferrals and insignificant changes in emissions, staff does not believe that increasing rates, even slightly, is justified. Therefore, goals for the IOUs should be based on measures that pass both the participant and RIM tests at this time.

See Issue 21 for a discussion of lost revenue recovery for programs failing RIM.

**Energy Policy Act**

**ISSUE 16:** Should the Commission implement the Integrated Resource Planning standard set forth in the Public Utilities Regulatory Policy Act (PURPA) as amended by the Energy Policy Act of 1992? If so, what would the effect of implementing the standard be?

**RECOMMENDATION:** No. Staff recommends that the Commission embrace the concept of IRP, but not adopt the Federal IRP standard. Uncertainty exists as to the effect of adopting the Federal standard, and as to the role of the Federal government in interpretation and enforcement of the Federal standard for those states that adopt it. (Tr. 975) [FLOYD]

**POSITION OF PARTIES**

**FPL:** No. There is no need to implement the IRP standard. It is unclear how adoption of the federal standard would aid the Commission or regulated utilities in their commitment to continued development and refinement of IRP. It is clear that adoption of the standard would lead to continuing regulatory controversy since the definitions of terms within the standard are vague and subject to broad interpretation.

**FPC:** No. It is unnecessary, since the Commission already has adequate authority to require reasonable and prudent utility planning processes. Furthermore, not adopting the federal standard will maintain the Commission's ability to continually refine this process over time. If, as is suggested by some, the federal standard requires the adoption of the TRC test as the screening test for what DSM is included in IRP, then adopting the Federal standard would have significant negative effects on the ratepayers in this state.

**GULF:** Resolution of this issue is not necessary at this time. Gulf's system integrated resource planning process already incorporates the elements of the federal standard as a prudent utility practice without a specific regulatory mandate. The implementation/adoption of the federal standard as a regulatory mandate would unnecessarily restrict the flexibility to adopt/implement more meaningful standards in a timely manner in the future, as circumstances warrant.

**TECO:** Based on the record of this case, the Commission should only state that it has carefully considered the integrated resource planning standards set forth in the Public Utilities Regulatory Policy Act (PURPA), as amended by the Energy Policy Act of 1992, and has determined that Tampa Electric's IRP process is consistent with the intent embodied in the federal standard. No other action need be taken. This is explained in greater detail in Point IV of Tampa Electric's Brief and Post-Hearing Statement.

**DCA:** Yes. Implementation of the federal IRP standard is needed to make Florida ready for its energy future. The effect will be that the state will initiate an on-going forum that will proactively plan for Florida's electricity needs in a consistent and regular fashion that fairly balances the interests of all effected parties. The utilities argue that the federal IRP standard is too broad and will result in excessive debate over controversial issues. We disagree and instead believe the flexibility of the federal IRP standard will allow the Commission to design and implement policies which fit the needs of the citizens of Florida.

**DOE:** The Commission should implement, and develop IRP in accordance with, this standard. Because IRP must be tailored to individual circumstances, the PSC and affected parties must develop IRP design and implementation. Although the effects will depend on the way the process develops, IRP generally yields benefits significantly greater than costs.

**LEAF/EVANS:** Yes. Its adoption would require rulemaking that is already needed to improve utility planning oversight in Florida. The Commission should integrate IRP rulemaking with consolidation and revision of its various and disparate existing planning oversight functions, including its role in the "Planning Hearings", its review of utility Ten-Year Site Plans, and its interagency coordination responsibilities.

**FCC:** The Commission should adopt the integrated resource planning standard set forth in EPAct and implement the standard through the commencement of an integrated resource planning rule making proceeding. The utilities' planning processes do not meet the federal standard of IRP because they are not oriented toward producing the lowest system cost, and for the reasons presented in the expert testimony of M. Jane Nelson and Linda Shelley.

**FlaSEIA:** Yes. If the Commission adopts the federal IRP standard, FlaSEIA believes the Commission should enter into rulemaking.

**CITY GAS:** Yes. Electric utilities should be required to perform integrated resource planning to ensure that the optimal mix of alternatives, including natural gas, is provided.

**PEOPLES:** The Commission should not adopt the federal IRP standard at this time. As a matter of sound public policy, Florida's electric utilities should be required to conduct their planning activities within the framework of total integrated energy resource planning, so as to assure that Florida's citizens receive energy services from the most efficient and cost-effective sources.

**WFNG:** Agree with Peoples Gas that the Commission should not adopt the federal IRP standard at this time. West Florida Natural Gas also agrees with Peoples Gas that, as a matter of sound public policy, Florida's electric utilities should be required to conduct their planning activities within the framework of total integrated energy resource planning, so as to assure that Florida's citizens receive energy services from the most efficient and cost-effective sources.

**FIPUG:** The current planning process used in Florida closely emulates the PURPA requirements. Electric utilities integrated resource planning should be implanted in a manner that does not discourage competition.

**CEPA:** Yes, the IRP standard set forth in Section 111(d)(19) of EPACT should be adopted by the FPSC. The effect of implementing this IRP standard is highly dependent on the type of IRP adopted. CEPA urges that the FPSC adopt a market-oriented IRP which produces a least cost resource mix that minimizes the net present value of utility's long-term revenue requirements while maintaining an adequate and reliable electric supply. (Huddleston)

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** Whether or not the Commission adopts the federal IRP standard, the Commission should not require the consider­ation of environ­mental externalities as part of the utility planning process. The consideration of environ­mental externalities as part of the utility planning process is not desirable from an environmental or regulatory policy viewpoint.

**STAFF ANALYSIS:** After careful review of the federal IRP standard contained in Section 111 of the Energy Policy Act of 1992 (EPACT), staff recommends that the Commission not implement the standard. It should be made clear at the outset that this recommendation should not be interpreted as one that opposes integrated resource planning. In general, the utilities should incorporate both demand-side and supply-side resources (including non-utility resources) into their plans to the extent that they are cost-effective. This is the essence of integrated resource planning.

The federal IRP standard should not be implemented because it could unnecessarily restrict utility and Commission flexibility. (Tr. 5263-5269) Several witnesses, including Secretary Shelley and Dr. Fox-Penner, indicated that the TRC test is the test most consistent with the intent of EPACT. (Tr. 826, 2951) Dr. Fox-Penner did concede that the Commission could set goals based on RIM if it did not automatically rule out consideration of a TRC portfolio. (Tr. 945-946) Even if the Commission decides that the TRC test is the most appropriate test, it has full authority to adopt it without implementing a federal IRP standard that is open to wide-ranging interpretation. The Commission should avoid getting unnecessarily embroiled in jurisdictional disputes.

**ISSUE 17:** If the Commission adopts the federal standard of IRP, did FPL's planning processes used to propose conservation goals meet the federal standard of "IRP"?

**RECOMMENDATION**: Yes. Assuming that the definition of IRP is a broad statement of policy, it appears FPL's planning process is consistent with the federal standard. [SHINE, FLOYD]

**POSITION OF PARTIES**

**FPL:** Yes. FPL's planning process meets each of the essential elements of the standard in that it considers supply and demand resources on a consistent and integrated basis, giving due regard to the risks of both, and the ability to implement and verify the planning results. Consideration of both a RIM- and TRC-based plan forestalls any criticism that FPL or the Commission has not fully implemented the standard. The dispute over whether FPL's process met the IRP standard evidences the continued controversy that will arise if the standard is adopted.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** No, FPL's process does not base conservation goals on lowest total system costs and does not include the full range of system costs affected by conservation measures.

**DOE:** No Position.

**LEAF/EVANS:** No. FPL did not examine the full range of resource alternatives, including purchase power and cogeneration. FPL also failed to consider necessary features of system operation, including reliability and other risk factors. FPL failed to treat demand and supply resources on a consistent and integrated basis. Finally, FPL misconstrued " lowest system cost" to mean "lowest system levelized average rate".

**FCC:** FPL's planning processes do not meet the federal standard of IRP for the reasons presented in the expert testimony of M. Jane Nelson and Linda Shelley.

**FlaSEIA:** No. The planning process used by FPL to establish numeric conservation goals did not meet the federal standard of IRP because: it screened DSM by minimizing average system rates rather than lowest system cost; it did not consider a wide range of supply side options which include fuel substitution, cogeneration, purchased power, and renewables.

**CITY GAS:** No. As admitted by Dr. Sim, FPL did not include natural gas substitution measures in its IRP process. Because the federal IRP standard requires an evaluation of the "full range of alternatives," FPL's process does not meet this standard.

**PEOPLES:** No. Specifically, FPL's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures. Moreover, FPL's planning evaluations did not appropriately include SO2 compliance costs.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No. FPL's planning processes do not meet the federal standard of IRP because: consideration of supply and demand side programs was not integrated; the process used was not capable of determining the "best" plan; and demand and supply side programs were not treated equally. Additionally, the plans presented by FPL are not binding and have no impact on subsequent utility construction.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No. position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** In its planning process, FPL considered demand and supply side resources. This is the essence of integrated resource planning. The question of whether demand side resources should be screened with the RIM or TRC tests is the crux of the dispute regarding the definition of IRP in PURPA. The definition of IRP does not specifically refer to use of the RIM or the TRC tests, nor does it state an explicit preference. (Tr. 1376) Therefore, while staff believes FPL's planning process meets the spirit of the federal standard, it is unclear whether the federal IRP standard requires use of the TRC test as the primary screening test for DSM measures.

**ISSUE 18:** If the Commission adopts the federal standard of IRP, did FPC's planning processes used to propose conservation goals meet the federal standard of "IRP"?

**RECOMMENDATION:**  Yes. Assuming that the definition of IRP is a broad statement of policy, it appears that FPC's planning process is consistent with the federal standard. [HAFF, FLOYD]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** Yes, insofar as FPC understands the somewhat vague terms of the federal IRP standard.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** No, FPC's process does not base conservation goals on lowest total system costs and does not include the full range of system costs affected by conservation measures.

**DOE:** No Position.

**LEAF/EVANS:** No. Because FPC used "lowest average rates" instead of "lowest system cost" as its plan optimization criterion, it is inconsistent with the federal IRP standard.

**FCC:** FPC's planning processes do not meet the federal standard of IRP for the reasons presented in the expert testimony of M. Jane Nelson and Linda Shelley.

**FlaSEIA:** No. The planning process used by FPC to establish numeric conservation goals did not meet the federal standard of IRP because: it screened DSM by minimizing average system rates rather than lowest system cost; it did not consider a wide range of supply side options which include fuel substitution, cogeneration, purchased power, and renewables.

**CITY GAS:** No. FPC did not include natural gas substitution measures in its IRP process. Because the federal IRP standard requires an evaluation of the "full range of alternatives," FPC's process does not meet this standard.

**PEOPLES:** No. Specifically, FPC's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures. Moreover, FPC's planning evaluations did not appropriately include SO2 compliance costs.

**WFNG:** No, because FPC has failed to consider natural gas measures on an integrated and consistent basis.

**FIPUG:** No position.

**CEPA:** FPC's planning process appears to meet the federal standard.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Whether demand-side resources should be screened with the RIM test or the TRC test is the crux of the dispute regarding the definition of IRP in Section 111 of PURPA. The definition of IRP is vague and unclear on the subject of "total system cost". The definition does not specifically refer to use of the RIM or TRC tests, nor does it state an explicit preference. (Tr. 1376) Some parties to the case (LEAF, FCC, DCA, etc.) believe that the reference to total system cost advocates using the TRC test. As a result, these parties take the position that the planning processes of all four investor-owned utilities, including FPC, do not comply with the federal IRP standard.

FPC's planning process considered demand-side and supply-side resources. This is the essence of integrated resource planning. Regardless of whether or not the Commission adopts the federal IRP standard, staff believes that FPC's planning process meets both the spirit and the letter of the federal IRP standard.

**ISSUE 19:** If the Commission adopts the federal standard of IRP, did GULF's planning processes used to propose conservation goals meet the federal standard of "IRP"?

**RECOMMENDATION:** Yes. Assuming that the definition of IRP is a broad statement of policy, it appears that GULF's planning process is consistent with the federal standard. [TAYLOR, FLOYD]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** Yes. Gulf's planning process includes evaluation of new generating capacity, power purchases, energy conservation and efficiency, cogeneration, etc., and consideration of system operation features such as diversity, reliability, dispatchability and other risk factors, all as provided under the federal IRP standard.

**TECO:** Did not intervene in Gulf's docket.

**DCA:** No, Gulf's process does not base conservation goals on lowest total system costs and does not include the full range of system costs affected by conservation measures.

**DOE:** No Position.

**LEAF/EVANS:** No. GULF did not examine the full range of alternatives, including natural gas fuel substitution for electricity. GULF failed to treat demand and supply resources on a consistent and integrated basis. Most importantly, GULF's process did not optimize to achieve the lowest system cost.

**FCC:** GULF's planning processes do not meet the federal standard of IRP for the reasons presented in the expert testimony of M. Jane Nelson and Linda Shelley.

**FlaSEIA:** No. The planning process used by Gulf to establish numeric conservation goals did not meet the federal standard of IRP because: it screened DSM by minimizing average system rates rather than lowest system cost; it did not consider a wide range of supply side options which include fuel substitution, cogeneration, purchased power, and renewables.

**CITY GAS:** No. Gulf did not include natural gas substitution measures in its IRP process. Because the federal IRP standard requires an evaluation of the "full range of alternatives," Gulf's process does not meet this standard.

**PEOPLES:** No.

**WFNG:** No, because GULF has failed to consider natural gas measures.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** In its planning process, GULF considered demand and supply side resources. This is the essence of integrated resource planning. The question of whether demand side resources should be screened with the RIM or TRC tests is the crux of the dispute regarding the definition of IRP in PURPA. The definition of IRP does not specifically refer to use of the RIM or the TRC tests, nor does it state an explicit preference. (Tr. 1376) Therefore, while staff believes GULF's planning process meets the spirit of the federal standard, it is unclear whether the federal IRP standard requires use of the TRC test as the primary screening test for DSM measures.

**ISSUE 20:** If the Commission adopts the federal standard of IRP, did TECO's planning processes used to propose conservation goals meet the federal standard of "IRP"?

**RECOMMENDATION:** Yes. Assuming that the definition of IRP is a broad statement of policy, it appears TECO's planning process is consistent with the federal standard. [FUTRELL, FLOYD]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** Tampa Electric's integrated resource planning process is consistent with the intent of EPAct. However, the record in this case does not show what would be involved in an IRP process under the federal standard. The record does fully support the reasonableness of Tampa Electric's integrated resource planning process. The Commission should not adopt the federal IRP standard because of (a) definitional uncertainties associated with the standard, and (b) the fact that the Commission and the utilities could lose needed flexibility in the planning process if the standard were adopted. See Point IV of Tampa Electric's Brief and Post-Hearing Statement.

**DCA:** No, TECO's process does not base conservation goals on lowest total system costs and does not include the full range of system costs affected by conservation measures.

**DOE:** No Position.

**LEAF/EVANS:** No. Because TECO used "lowest average rates" instead of "lowest system cost" as its plan optimization criterion, it is inconsistent with the federal IRP standard.

**FCC:** TECO's planning processes do not meet the federal standard of IRP for the reasons presented in the expert testimony of M. Jane Nelson and Linda Shelley.

**FlaSEIA:** No. The planning process used by Gulf to establish numeric conservation goals did not meet the federal standard of IRP because: it screened DSM by minimizing average system rates rather than lowest system cost; it did not consider a wide range of supply side options which include fuel substitution, cogeneration, purchased power, and renewables.

**CITY GAS:** No. As admitted by Mr. Curier, TECO did not include natural gas substitution measures in its IRP process. Because the federal IRP standard requires an evaluation of the "full range of alternatives," TECO's process does not meet this standard.

**PEOPLES:** No. Specifically, TECO's assessment of natural gas measures under Rule 25-17.0021(3)(g)&(s) was inadequate and was not integrated with consideration of other demand-side and supply-side measures. Moreover, TECO's planning evaluations did not appropriately include SO2 compliance costs.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** In its planning process, TECO considered demand and supply side resources. This is the essence of integrated resource planning. The question of whether demand side resources should be screened with the RIM or TRC tests is the crux of the dispute regarding the definition of IRP in PURPA. The definition of IRP does not specifically refer to use of the RIM or the TRC tests, nor does it state an explicit preference. (Tr. 1376) Therefore, while staff believes TECO's planning process meets the spirit of the federal standard, it is unclear whether the federal IRP standard requires use of the TRC test as the primary screening test for DSM measures.

**ISSUE 21:** Should the Commission implement the Investments In Conservation And Demand Management standard in the Public Utility Regulatory Policy Act as amended by the Energy Policy Act of 1992? If so, what would the effect of implementing the standard be?

**RECOMMENDATION:** No. Staff recommends that the Commission embrace the concept of the Investments In Conservation and Demand Management standard as set forth in the Energy Policy Act, but not adopt the Federal standard. Uncertainty exists as to the effect of adopting the Federal standard, and as to the role of the Federal government in interpretation and enforcement of the Federal standard for those states adopting it. Staff recommends that, upon petition from a utility, lost revenue recovery and stockholder incentives be considered on a case-by-case basis for solar, renewables, natural gas substitution, high efficiency cogeneration and other measures or programs that have high savings and negligible rate impacts. [FLOYD]

**POSITION OF PARTIES**

**FPL:** No. Current regulatory practice in Florida with conservation cost recovery, projected test periods, subsequent year adjustments and monthly surveillance reports already results in DSM being more profitable than supply side alternatives for FPL. There is no need to adopt the standard. By rejecting the standard the Commission can avoid sustained controversy regarding the inaccurate assertions that the standard requires the use of decoupling, lost revenue adjustments or DSM incentives. These mechanisms are neither necessary to promote cost-effective DSM nor in the best interest of utility customers.

**FPC:** Yes. The Commission should implement the Investments in Conservation and Demand-Side Management standard in PURPA by approving the Modified LEAF Proposal in Docket Number 930424-EI (See pages 8 to 9 above) as a pilot program for FPC. This will provide the Commission valuable experience in removing disincentives to utilities' selection of demand-side measures as alternatives to additional generation.

**GULF:** Not at this time. As with the federal IRP standard addressed in Issue 16, implementation of the Investments in Conservation and Demand Management standard is premature based on the information gathered to date. The information provided in this docket, however, will provide a starting point for future Commission investigations into this matter.

**TECO:** The effect of implementing the standard would depend upon how the standard is defined. The application of any standard should be based on the utility's specific needs. Tampa Electric's submits that no need has been shown for the adoption of any "income neutrality" programs or measures in Florida. The Commission should simply indicate that it has carefully considered this standard but does not believe that any further action is required based on the record in this proceeding. This is discussed in detail in Point IV of Tampa Electric's Brief and Post-Hearing Statement.

**DCA:** Yes. The Commission must ensure that the financial interests of utilities are fully consistent with the outcomes of the adopted federal IRP process. For DSM resources, this means the adoption of regulatory reforms to remove financial disincentives and provide positive financial incentives for successful utility DSM programs. TECO witness Kordecki admitted that there is a financial incentive for utilities to sell electricity. [Tr. 1400-1401.] Such an incentive is not consistent with aggressively pursuing DSM.

**DOE:** This standard should be implemented. Traditional ratemaking produces financial disincentive to DSM. There are several options for implementation, including net lost revenue adjustment (NLRA), decoupling, and various incentive mechanisms. The effects of different options will vary, but implementation should remove any strong disincentives to energy efficiency investment.

**LEAF/EVANS:** Yes. The Commission should adopt it in order to support least-cost resource acquisition and maximum cost-effective DSM investment. The Commission would be required to review its currently authorized cost-recovery mechanisms; institute some form of net "lost revenue recovery" mechanism or decoupling mechanism; and provide a mechanism to ensure that investment in DSM is as profitable to utilities as investment in supply-side options.

**FCC:** The Commission should adopt the investments in conservation and demand management set forth in EPAct. The Commission should implement the standard through approving Florida Power Corporation's proposal for revenue decoupling as a means for obtaining Florida specific information to be considered later in deciding whether to initiate rule making to further implement this standard.

**FlaSEIA:** Yes. The Commission should require each of the IOUs to file proposals for either revenue decoupling or lost revenue recovery; a DSM incentives plan should be included with these revenue neutrality proposals.

**CITY GAS:** No position.

**PEOPLES:** Not at this time.

**WFNG:** No position.

**FIPUG:** No. Implementing the standard to pay something for no investment or to guarantee rates on existing investment irrespective of all external conditions would subject industrial consumers to inordinate risks and the prospect of significant rate volatility.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Dr. Fox-Penner from DOE emphasized that this standard is entirely voluntary. (Tr. 798, 974) He argues that traditional ratemaking imposes significant disincentives to promotion of DSM programs. (Tr. 815) However, it is not clear why such disincentives, cannot be removed without adopting a federal standard. Witness Kordecki recommended that any consideration of "income neutrality" be on a utility-specific basis rather than adopting a federal standard that would apply to all utilities. (Tr. 1382) He further suggested that each utility who wishes to institute an income neutrality mechanism petition the Commission for such relief. In that way, the specific circumstances under which the petitioning utility finds itself can be addressed and resolved without establishing a regulatory mechanism that my not be appropriate for all electric utilities. (Tr. 1382)

The position of Florida Power Corporation as stated in its Posthearing Memorandum (pp. 33-34) suggests that the standard should be implemented by approving the Modified LEAF Proposal in Docket Number 930424-EI as a pilot program for FPC. The Florida Client Council takes a similar position (p. 9, FCC Issues and Positions Statement). But, it is not clear that the federal standard could be implemented by only applying it to one utility. Also, staff is perplexed why FPC wants to subject itself to a federal standard that, as pointed out in its own position, would have significant negative effects if the standard requires use of the TRC test for DSM screening.

Dr. Stutz's testimony on this issue is somewhat confusing and may illustrate why it is best that the Commission not adopt the federal standard. On the one hand he says, "Based solely on the Income Neutrality Standard, solving the narrowly-defined lost revenue problem may be enough." (Tr. 2245, lines 6-7) On the other hand, in the very next two sentences he asserts that in order to treat supply and demand fairly as required by the IRP standard, decoupling is required. Dr. Stutz goes on to differentiate between a net lost revenue adjustment and decoupling. (Tr. 2244- 2245) We are left wondering whether a net lost revenue mechanism satisfies the standard, or must decoupling be instituted?

For these reasons, the Commission should not surrender its prerogatives to set retail rates by implementing this federal standard.

After the goals are adopted, the utilities should be allowed to propose selected programs that fail RIM for lost revenue recovery and stockholder incentives, such as solar, renewables, natural gas substitution, and high efficiency cogeneration. Staff believes that utilities have ample incentives to pursue programs that pass RIM. (Tr. 2551) The decision to allow recovery of lost revenues should be made on a case-by-case basis. As pointed out by Dr. Fox-Penner, a net lost revenue adjustment procedure (NLRA) is less likely than some forms of decoupling to shift risks from shareholders to ratepayers. (Tr. 821) Also, FPC has now taken the position that a NLRA procedure is more appropriate than its original decoupling pilot program. (FPC Brief, p. 7)

The need for stockholder incentives was supported by several citizens at the service hearings (TT 25, 180) as well as other witnesses in the technical hearings. (Tr. 815, 2243) Staff agrees with witness Kordecki that incentives should be considered on a case-by-case basis, although we do not think it is necessary that it be done in a rate case environment. (Tr. 1400)

**Generic Numeric Goals**

**LEGAL**

**ISSUE 22:** Pursuant to Rule 25-17.0021, F.A.C., and other applicable legal authority, can the Commission set numeric goals for each major end-use category within each market segment?

**RECOMMENDATION:**  Yes. The Commission has broad discretion to set appropriate goals to carry out the intent of FEECA. [PALECKI]

**POSITION OF PARTIES**

**FPL:** No. FEECA and Rule 25‑17.0021 authorize "overall goals." The Commission has only the authority conferred by statute and may not act to enlarge its authority. The express mention of authority to set "overall goals" in FEECA implies the exclusion of authority to set subordinate goals. This construction of FEECA is consistent with Rule 25‑17.0021, and the Commission must follow its rules. The Commission previously declined, when asked, to adopt a rule authorizing goals other than overall goals; any attempt to set subordinate goals would contravene law and make rulemaking meaningless.

**FPC:** Rule 25-17.0021, F.A.C., empowers the Commission to establish *overall* goals for the Residential and Commercial/Industrial market segments only. When this Rule was adopted, the Commission limited any inherently broader authority it may have had in this area. Setting detailed goals for each major end-use category would necessarily contradict the Commission's mandate in Rule 25-17.0021.

**GULF:** No. Rule 25-17.0021, F.A.C. only authorizes the Commission to establish "[o]verall Residential KW and KWH goals and overall Commercial/Industrial KW and KWH goals...". Further, even if the Rule did authorize such specific goals, it would not be prudent from a policy standpoint for the Commission to establish such goals absent specific results from specific markets, technologies, and service areas.

**TECO:** Presumably from a legal standpoint the Commission can address this. However, the record in this case, including testimony from Mr. McDonald on behalf of DCA, strongly suggests that goals should be set on an aggregate basis rather than on an end-use basis. This is discussed in detail in Point II of Tampa Electric's Brief and Post-Hearing Statement.

**DCA:** Yes. The Commission has authority under Sections 366.80 to 366.85 to accomplish efficient and cost effective utility regulation, including reducing growth rates and peak demands, overall efficiency and conservation, and conserving expensive resources. The only way this can be done effectively is with goals for each major end use. A number of utility witnesses conceded this point during the hearing.

**DOE:** No Position.

**LEAF/EVANS:** Yes. The Commission must adopt "appropriate" goals for increasing the efficiency of energy consumption and to encourage co-generation, "specifically including" goals designed to increase the conservation of expensive resources ... to reduce and control the growth rates of electric consumption, and to reduce the growth rates of weather-sensitive peak demand. FEECA is to "liberally construed". Establishment of specific goals is consistent with past Commission practice and existing rules.

**FCC:** Yes, it is within the Commission's power to set conservation goals in such a way as to carry out its broader charge and responsibility. This includes the power to set these goals.

**FlaSEIA:** Yes. FEECA gives the Commission the authority to set "appropriate goals for increasing the efficiency of energy consumption." In addition, FEECA explicitly calls for "...the use of solar energy, renewable energy sources, highly efficient systems, cogeneration, and load-control systems." Clearly, the Commission has ample authority from the Legislature to set specific goals for solar energy.

**CITY GAS:** Yes. The Commission has broad authority pursuant to the Florida Energy Efficiency and Conservation Act (FEECA) to require efficient and cost-effective conservation. The setting of end use goals does just that by removing the utilities' ability to ignore specific measures even if they are a superior choice.

**PEOPLES:** Yes. Gas DSM is specifically consistent with FEECA's mandates to reduce and control the growth rates of electricity consumption and weather-sensitive peak demand, and to increase the overall efficiency and cost-effectiveness of electricity and natural gas production and use.

**WFNG:** Yes.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No. Section 366.81, F.S., requires the Commission to "develop and adopt overall goals." Rule 25-17.0021(1), F.A.C., states that the goals set by the Commission will be "[o]verall Residential KW and KWH goals and overall Commercial/Industrial KW and KWH goals."

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** Tallahassee agrees with and adopts the position of the Florida Municipal Electric Association as set forth in the Prehearing Order under Issue 22.

**CEED:** No position.

**STAFF ANALYSIS:**  The positions of the parties on this issue are polarized. The electric utilities and Florida Municipal Electric Association contend that FEECA and Rule 25-17.0021 only require the Commission to set overall goals and that end-use goals are not permitted under the rules or statutes. LEAF/Evans, DCA, FCC, Fla. SEIA, and the gas utilities contend that FEECA gives the Commission broad authority to set "appropriate" goals; calls for "...the use of solar energy, renewable energy sources, highly efficient systems, cogeneration, and load control systems"; and is to be liberally construed. They assert that FEECA's intent can only be implemented effectively through end-use goals.

FEECA and Rule 25-170021 require the Commission to set overall goals. Overall goals are mandatory and must be set by the Commission. It does not follow however, that end-use goals are not permitted under FEECA or Rule 25-17.0021. FEECA gives the Commission broad authority to carry out its intent to accomplish energy-efficiency and conservation. FEECA specifically instructs that it is to be liberally construed. If the Commission finds that end-use goals are an appropriate means to accomplish the intent of FEECA, it clearly has broad discretion to implement those goals.

The fact that the Commission has chosen in its rule to require overall goals does not in any way prohibit the Commission from establishing end-use goals. If the Commission had wished to prohibit end-use goals in its rule, it could have done so. It did not. It likewise did not require establishment of end-use goals. It simply left the matter of end-use goals to its sound discretion. End-use goals are neither mandated nor prohibited. They are neither encouraged nor discouraged by FEECA or Rule 25-17.0021. While end-use goals may not be established in lieu of overall goals, they may be established in addition to overall goals, if the Commission deems them appropriate and they are consistent with the overall goals.

**FPL's Numeric Goals**

**ISSUE 23:** If numeric goals should be set for each major end-use category within each market segment, what should FPL's goals be?

**RECOMMENDATION:** Overall numeric goals should be set for the residential and commercial/industrial sectors consistent with Rule 25-17.0021, F.A.C. Staff believes setting end-use goals is too much governmental interference and information is too sparse to conclude that goals for solar, renewables, and natural gas substitution will result in large power plant savings that have minimal rate impacts. If numeric goals are set by end-use, the Commission should rely on Exhibit 15, Document No. 2. [SHINE]

**POSITION OF PARTIES**

**FPL:** Numeric goals should not be set for any end-uses. End-use goals are inconsistent with the governing rule and statute, constitute poor regulatory policy and cannot be objectively justified on the evidence. They are fundamentally at odds with an integrated planning process that selects resources without a predetermined preference. If such goals are nonetheless set, they should be no greater individually than the reasonably achievable potential end-uses shown in Exhibit 15, Document No. 2 and should be included in, rather than added to, FPL's proposed goals.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** Goals should be set in residential and commercial totals for new construction of 30 percent of the overall goals and annual goals, for solar/renewables in the amounts set by FLASEIA and for low-income residents in the amount of 11 percent of annual and overall goals, to be implemented through programs similar to those suggested by FCC. They should also be set for natural gas substitution.

**DOE:** No Position.

**LEAF/EVANS:** No position.

**FCC:** FPL's goals should be consistent with the SRC study's best practices scenario under total resource cost analysis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** No position.

**CITY GAS:** For natural gas, FPL's annual goal should be 5 MW per year for non-cogeneration projects.

**PEOPLES:** The Commission should recognize that natural gas substitutes for electricity are not an end use such as those identified in Rule 25-17.0021(3)(a-d)&(i-q). Rather, natural gas substitutes comprise a range of end use energy options. FPL's Gas DSM goals, with respect to customers served by both FPL and Peoples, should be a cumulative total of 55 MW of summer/winter peak electric demand reduction and associated electric energy reductions.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Staff believes the Commission should set overall goals consistent with its rules. Overall goals will allow FPL the flexibility to respond to changing technological and economic circumstances. DCA witness McDonald stated that it is important that goals be set on an aggregate basis and not by end-use. (Tr. 2649, 2719)

If the Commission decides to set end-use goals, staff recommends using FPL's witness Hugues Document No. 3, Exhibit No. 15 to identify residential goals by end-use, FPL's commercial/industrial goals are reported by measure and can be formatted into end-use goals in a similar manner. Additional adjustment must be made to Document No. 3 to report goals on a ten year period as envisioned by the Commission's rule. Further adjustments are necessary to both FPL's RIM goals (1050 MW, and 6836 GWH) which are reported on a seven year period (1994-2000), and to the TRC goals (1650 MW, and 1338 GWH) which are reported on a nine year period to account for each year of the ten year goal period. Staff recommends filling in the last three years of RIM with the data from year 2000, and filling in the last year of the TRC with data from year 2002. This approach is further defined in Issues 29 and 30.

**ISSUE 24:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPL's goals be?

**RECOMMENDATION:** The Commission should require FPL to develop alternate funding sources such as voluntary Green Pricing where customers contribute to a fund to be used to promote the installation of solar water heating and other renewable measures. FPL should evaluate voluntary Green Pricing in conjunction with the development of DSM programs designed to meet FPL's numeric goals. [SHINE]

**POSITION OF PARTIES**

**FPL:** No, to do so would be inconsistent with FEECA and Rule 25‑17.0021. Moreover, FPL's analysis shows no solar or renewable measure that is cost-effective to nonparticipants (RIM) and participating customers (Participants). FPL should not be required to achieve goals that cannot be met with measures cost-effective under both the RIM and Participants Tests. FEECA's encouragement of solar does not include abandonment of cost-effectiveness. Voluntary green pricing may be the best approach to fund solar options.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** Yes. The Department supports the numeric solar energy goals proposed by FlaSEIA and incorporates those numbers in its tables with minor variation.

**DOE:** No Position.

**LEAF/EVANS:** Yes. LEAF/EVANS adopt FSEIA's position.

**FCC:** The Commission should set energy conservation goals for solar and renewable energy sources in order to encourage the diversification, and reduce the price of Florida's residential energy. FPL's goals should be set in accordance with the expert intervenor testimony presented on this issue. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA proposes aggressive solar energy goals, presented in Table 1, for energy, winter demand, and summer demand. FlaSEIA's alternative recommendation is that the Commission select either moderate or base case solar energy goals which have been presented in Tables 2 and 3. FlaSEIA proposes that these goals be applied to the residential class alone.

***Table 1: Florida Power & Light Company -- Proposed Solar***

***Energy Goals (Aggressive)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 24,498 | 8.6 | 2.4 |
| 1995 | 50,442 | 17.7 | 5.0 |
| 1996 | 77,916 | 27.3 | 7.8 |
| 1997 | 106,908 | 37.4 | 10.7 |
| 1998 | 137,377 | 48.1 | 13.7 |
| 1999 | 169,313 | 59.3 | 16.9 |
| 2000 | 202,717 | 71.0 | 20.3 |
| 2001 | 237,614 | 83.2 | 23.8 |
| 2002 | 274,028 | 95.9 | 27.4 |
| 2003 | 311,974 | 109.2 | 31.2 |

***Table 2: Florida Power & Light Company -- Proposed Solar Energy Goals (Moderate)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 14,699 | 5.1 | 1.5 |
| 1995 | 30,265 | 10.6 | 3.0 |
| 1996 | 46,750 | 16.4 | 4.7 |
| 1997 | 64,145 | 22.5 | 6.4 |
| 1998 | 82,426 | 28.8 | 8.2 |
| 1999 | 101,588 | 35.6 | 10.2 |
| 2000 | 121,630 | 42.6 | 12.2 |
| 2001 | 142,568 | 49.9 | 14.3 |
| 2002 | 164,417 | 57.5 | 16.4 |
| 2003 | 187,185 | 65.5 | 18.7 |

***Table 3: Florida Power & Light Company -- Proposed Solar Energy Goals (Base)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 9,799 | 3.4 | 1.0 |
| 1995 | 20,177 | 7.1 | 2.0 |
| 1996 | 31,166 | 10.9 | 3.1 |
| 1997 | 42,763 | 15.0 | 4.3 |
| 1998 | 54,951 | 19.2 | 5.5 |
| 1999 | 67,725 | 23.7 | 6.8 |
| 2000 | 81,087 | 28.4 | 8.1 |
| 2001 | 95,046 | 33.3 | 9.5 |
| 2002 | 109,611 | 38.4 | 11.0 |
| 2003 | 124,790 | 43.7 | 12.5 |

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Green Pricing is a relatively new concept currently in use in limited jurisdictions. Customers voluntarily choose to donate money on their monthly bills for the utility to engage in the procurement and implementation of renewable technologies. Staff believes that FPL should consider this option during the program development and submittal stage of this docket.

In response to DCA witness Nelson's testimony where she asks the Commission to establish policy guidelines for acquisition of renewable resources, FPL witness Hugues stated that renewables should only be pursued if they cost-effective to all of FPL's customers. (Tr. 4312) However, he also stated that FPL would cooperate with the Commission and the solar energy industry in trying a different approach than a set-aside to the promotion of renewables. (Tr. 4313) Mr. Hugues suggested voluntary Green Pricing as one option which would allow customers who are willing and able to contribute to a fund to be used solely for the installation of renewables on the FPL system. (Tr. 4313)

It is important to note that various intervenors correctly point out the numerous references in the Florida Statues, including the FEECA statute where the Legislature encourages the development and use of solar and renewable energy sources to meet the complex energy needs of Florida. (Tr. 2619) FPL opposes solar due primarily to the lost revenues resulting from the energy savings, and plans to propose to discontinue the existing program after the goals agenda. (Tr. 724) FPL reports a negative cost-benefit ratio of 0.8 and 0.26 under the RIM and TRC tests respectively. (Ex. 14)

In FPL's December 1990 revised petition to continue the residential solar water heating program, the Company recognized the program's benefits as being in the best interest of their customers and the state of Florida. (Tr. 2620) FPL previously stated that by continuing the program, the Company could continue assisting the development of a renewable energy source within its service territory, which will help advance the policy objectives set forth in Rule 25-17.001, F.A.C. and FEECA. The Company also recognized the potential negative effect upon the solar industry if this program was discontinued. (Tr. 2620) Finally, FPL recognized the difficulty of quantifying policy and industry related benefits which are not typically captured in the cost-effectiveness analysis, as they make the promotion of solar water heaters more cost-effective than it appears on the basis of the analysis specified in Rule 25-17.008. (Tr. 2620) The Commission's order approving FPL's program recognized the contribution to the advancement of the FEECA policy objectives regarding renewable resources. (Tr. 2621)

Staff believes FPL's existing solar water heating program should be continued, and that Green Pricing options should be considered in the program repackaging. FPL's primary reason to discontinue this program is based on the estimated cumulative lost revenues of approximately $1,000,000 for the four year period 1990-1993. (Ex. 24) In light of the Legislative intent to encourage solar resources, lost revenues are a cost of doing business. This is apparently a small price to pay for the advancement of a Legislative intent to decrease Florida's dependence on fossil fuels, and to assist in the sustainment of the solar water heating industry in Florida.

**ISSUE 25:** ISSUE DELETED.

**ISSUE 26:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C., and if so, what should FPL's goals be?

**RECOMMENDATION:**  No. [SHINE]

**POSITION OF PARTIES**

**FPL:** Goals should be set for the Residential and Commercial/ Industrial market segments. There is no need for new construction goals separate from existing construction within these market segments. FPL has already captured in its proposed goals the cost-effective conservation potential for the residential and commercial/industrial new construction market segments, so there should not be any lost opportunities in new construction DSM.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** Yes. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** Yes. From September 1978 until June, 1984, FPL offered its **WattWise** program for new home construction. FPL updated the program standards as codes were strengthened. FPL has a pilot program underway and marketing materials prepared. DCA and FSEC confirm that cost-effective savings beyond the prescriptive code are substantial. FPL's goal should be to have a new home construction program by January 1996 with a 90% participation rate achieved by 2000.

**FCC:** The Commission should set separate goals where it appears that cross-subsidization of utility conservation programs would otherwise result, or where there are strong societal interests in a particular sector having a conservation goal. FPL's should be consistent with the SRC study's best practices scenario under total resource cost analysis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** Yes. No position on goals levels.

**CITY GAS:** No position.

**PEOPLES:** Yes. The Commission should set sector-specific and seasonal goals. No position as to the levels of the goals.

**WFNG:** Yes. No position as to the levels of the goals.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Although the Commission has the discretion to establish end-use specific goals as discussed in issue 22, separate reporting of these goals is not desirable or consistent with the intent of overall goals established for each utility. Various intervening parties such as LEAF, FCC, DCA, and FlaSEIA advocate establishing end-use goals for particular market segments. These parties advocate specific programs addressing solar and renewable energy, natural gas, low income, and new construction market segments.

DCA witness McDonald acknowledged that overall goals are preferable to end-use goals because they reduce the risk to the utility of realizing projected market penetrations, in addition to energy and demand savings from individual end-use programs. (Tr. 2747) Overall goals provide the utility with flexibility to trade off energy and demand savings from other measures in meeting an overall goal. (Tr. 2747) Mr. McDonald testified that flexibility affords the utility with the opportunity to take advantage of changes in costs, and technology which help to minimize the cost of the demand-side management options. (Tr. 2748)

FPL witness Hugues also testified that overall goals provide flexibility to a utility, a shortfall in one end use can be compensated for with more than anticipated success in another without consequence under overall goals. (T. 483) FPL witness Dr. Sim testified that end-use goals are the very antithesis of integrated resource planning and lead to sub-optimal, cost-ineffective plans. (Tr. 4565)

**ISSUE 27:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPL's goals be?

**RECOMMENDATION:**  No. The Commission should not set goals for FPL for natural gas substitution for electricity. [MILLS, SHINE]

**POSITION OF PARTIES**

**FPL:** No. If a natural gas measure were cost-effective both to participants and nonparticipants and had measurable achievable potential, FPL would analyze it in FPL's integrated resource planning process, and, if selected, would be willing to offer incentives. However, none of the gas measures analyzed were cost-effective to participants, and there is no meaningful assessment of natural gas achievable potential. Therefore, natural gas measures cannot be justified in overall goals, and there is no basis, legal, policy or evidentiary, for an end-use gas goal.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** Yes. No position on goals levels.

**DOE:** No Position.

**LEAF/EVANS:** Yes. No position on these goals levels.

**FCC:** The Commission should set energy conservation goals for natural gas substitutes for electricity in order to encourage the diversification, and reduce the price of Florida's residential energy. FPL's goals should be set in accordance with the expert intervenor testimony presented on this issue. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** No position.

**CITY GAS:** Yes. As discussed in Issue 22, the Commission has the authority to set end use goals. For FPL, the natural gas substitution goal should be 5 MW per year for non-cogeneration projects.

**PEOPLES:** Yes. The Commission should recognize that natural gas substitutes for electricity are not an end use such as those identified in Rule 25-17.0021(3)(a-d)&(i-q). Rather, natural gas substitutes comprise a range of end use energy options. FPL's Gas DSM goals, with respect to customers served by both FPL and Peoples, should be a cumulative total of 55 MW of summer/winter peak electric demand reduction and associated electric energy reductions.

**WFNG:** Yes. No position as to the levels of the goals.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS**: The Commission should not set specific goals for natural gas substitution for electricity. Utilities' analyses indicate a lack of sufficiently accurate information upon which the Commission could base its decision to set specific goals. For future goal evaluations, electric utilities should be directed to gather information sufficient to set goals for use of gas alternatives to electricity end use. See the next issue for further discussion.

Electric utilities should continue to consider measures to reduce electric energy end use without regard to the input fuel used to reduce electricity demand. The Commission has long advocated and recognized the prudency of electric utilities' consideration of natural gas use as a means to mitigating volatility of winter peak demands in Florida. The following is from the Commission's order regarding the investigation into the cold weather emergency occurring in peninsular Florida, December 23-25, 1989:

Utilities are encouraged to continue to develop and implement cost-effective conservation programs approved by the Commission, including those that promote the cost-effective use of natural gas to moderate Florida's dependence on electric heating. FPSC Docket No. 900071-EG, Order No. 22798 at 7 (March 20, 1990)

Witnesses for the electric utilities in this docket supported the use of measures that passed the RIM and the participant tests. Staff believes that if a measure is cost-effective, as defined by the Commission in this docket, whether for gas substitute or any other measure the utility should adopt its use based on its cost-effectiveness. According to FPL's Mr. Sims, "From our standpoint we believe that if a gas measure passes both the RIM and participants' test, that it's cost-effective for all of our customers, then we won't have a concern with that measure being implemented." (Tr. 547) Additionally, FPL's Mr. Hugues followed with, "We would recommend to our customers any measure, regardless of whether it's gas or any other measure, that it's cost effective for both the participants and nonparticipant alike. So it would have to pass both the RIM and the participants test." (Tr. 665) Mr. Jacob, for FPC, supported the RIM and participant tests for measures to be considered cost-effective for conservation. (Tr. 986-987) Mr. Kilgore, for GULF, concluded that RIM had shortcomings then recommended it because RIM does yield the correct conclusions for GULF and its customers. (Tr. 1203) Mr. Currier, of TECO, encouraged the Commission to support RIM and the Participant test as the standard for adopting DSM measures. He called it a "no-loser practice."

**ISSUE 28:** Should the Commission direct FPL to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

**RECOMMENDATION:**  No. However, the Commission should require FPL to conduct research and demonstration projects on the eleven gas technologies reviewed in this docket to develop Florida specific information on performance and cost-effectiveness of those technologies for heating, cooling, dehumidification and water heating. FPL should be required to file within six months, in a separate docket, its plans for these research and development projects in accord with the provisions of 25-17.001(5)(f). The Commission should encourage and even consider rewarding FPL if the company cooperatively develops joint projects with gas utilities that produce measurable conservation savings. [MILLS, SHINE]

**POSITION OF PARTIES**

**FPL:** No. The Commission may mandate programs under FEECA only in instances when a utility "has not implemented its programs and is not substantially in compliance with the provisions of its approved plan ...." Those necessary preconditions do not exist. FPL made a reasonable offer to City Gas Company to create a research project to gather necessary data, but FPL cannot agree to an effort that does not initially consider whether the measures will benefit the participating customer and the general body of customers. FPL will propose its own research project.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** No position.

**DOE:** This issue is extremely complex. Generally, to the extent that fuel substitution offers potential economic and energy efficiency gains, DOE supports initiatives to pursue such substitution. However, the Department takes no position on whether specific end uses in FPL's territory are appropriate for fuel switching.

**LEAF/EVANS:** Yes.

**FCC:** Yes, the Commission should direct FPL to implement the natural gas pilot programs proposed by the natural gas companies.

**FlaSEIA:** No position.

**CITY GAS:** Yes. Such programs will put to rest the debate over the appropriate in-puts to the cost-effectiveness test. A pilot program will allow the collection of actual empirical data and should be structured as described by Mr. Furman in his testimony and in Exhibit No. 132.

**PEOPLES:** Market pilot programs involving cost-effective commercial/industrial natural gas technologies can represent measures by which FPL can implement electric conservation through natural gas substitutes for electricity. Any such measures should be undertaken within the context of an overall plan to achieve the natural gas DSM goals for FPL set forth in Mr. Krutsinger's testimony.

**WFNG:** Yes.

**FIPUG:** No position.

**CEPA:** Currently gas technologies exist that can provide energy to end-users in a less expensive, more efficient manner. The market has provided these technologies and their competitive position in the market place should determine the extent to which these technologies are used.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not order FPL to conduct joint utility pilot programs with any gas utilities, because to order cooperation will not be productive. During this docket, City Gas and FPL attempted to negotiate a cooperative gas pilot project. (Tr. 3174) They have been unable to reach an agreement on the project. FPL and City Gas have an unending dispute over appropriate inputs to the cost-effectiveness tests. (Tr. 3174-75) FPL is unsure of current data available on gas measures, and wants actual field data. (Tr. 669) FPL has agreed with the concept of demonstration projects; it raised objections as to how such program were to be conducted. While recognizing that it is the input values that are in dispute, FPL insisted on prescreening the demonstration measures prior to implementation. (Tr. 4472-73) City Gas agrees that it is a question of input values, but that FPL's prescreening is an attempt to prejudge the demonstration project. (Tr. 4476)

Staff is not finding fault or judging the merits of the above dispute. The information is provided to demonstrate the difficulties of a demonstration project based upon mandated cooperation. Staff is concerned that the Commission may be forced to referee every detail of each project for all the utilities if the Commission orders the electric utilities to do demonstration gas projects with gas utilities. The ill will from a forced marriage between utilities and the inevitable and costly litigation, resulting in data that will possibly remain in dispute is not beneficial for utilities or customers. Staff favors any cooperative efforts or required independent projects with the data used later to develop DSM programs for the Commission's approval.

The need for accurate data is shown by the inconsistency of electric utilities' calculations of cost-effectiveness of gas technologies. The results of their evaluations of the eleven gas technologies in this docket varied immensely due to electric utilities' assumptions for input data. (Tr. 1563-64, 2329, 3653, 3665, 3668, 3675, 4188, 4377) Mr. German, witness for PGS, cited examples of unreasonable assumptions and inconsistences in the electric utilities' evaluations of the eleven gas technologies. (Tr. 2327-32) GULF's assumptions for the eleven gas technologies for the base year totaled 577 pages.

Not considering cogeneration, which might be considered a demand side alternative, the conclusions of all four electric utilities were that only one gas technology, desiccant dehumidifying, passed both the RIM and participant test. (Tr. 2329) (Ex. 6, 36, 51, 156) FPL's evaluation showed that nine of the eleven technologies passed the electric RIM test. (Ex. 6) FPC's evaluation showed that only one passed the RIM test, but two others have ratios of .99 and 91. The failure of most of the technologies to pass FPC's RIM test probably was caused by the loading of an incentive amount to the participant test to bring it up to 1.0 benefit/cost ratio. (Ex. 36) GULF's evaluation had no measure passing any of the tests. (Ex. 51) TECO's evaluation showed that eight of eleven passed the RIM test. (Tr. 156)

The nearly total failure of the gas technologies to pass the electric utilities' calculation of the participant test is difficult to accept. Staff does not believe that approximately 600,000 existing Florida gas customers have made a mistake in their economic decision, nor that the manufacturers of gas technologies would commit resources to develop and market new gas technologies if they are all destined to be market failures. (Tr. 3668, 3673, 3675)

The unusually diverse results of electric utilities' evaluations appear to be based on input assumptions not grounded in Florida specific applications. The Commission should, therefore, require electric utilities to develop Florida specific data through research and demonstration projects on gas technologies. (Tr. 669) Rule 25-17.001(5)(f), F.A.C., assumes aggressive research and development projects are "... an ongoing part of the practice of every well managed electric utility's programs ...". The data gathered would be for the performance and cost-effectiveness of gas technologies for heating, cooling, dehumidification and water heating. (Tr. 1563-64, 2327-32, 3174-75, 3653, 3653, 3665, 3668, 3675, 4188, 4377) (Ex. 6, 36, 51, 156)

For a comparison of the eleven gas technologies results refer to the table on the next page. Note the range of values in the calculations. Those technologies passing a test for any particular utility are highlighted with double outlines. Those above 0.84 on the RIM test are shaded.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| GAS TECHNOLOGIES | | | | | | | | | | | | |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Participant Test | FPC | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | **1.77** | 1.00 | 1.00 | **2.12** | 1.00 |
|  | FP&L | .22 | .31 | .54 | .46 | .42 | .28 | .41 | .53 | .21 | .45 | .49 |
|  | GULF | (.01) | .15 | .42 | .35 | .18 | .19 | .07 | .57 | .17 | .37 | .22 |
|  | TECO | (39,267) | (20,024) | (378) | (5,923) | (7,039) | (118) | - a - | (47) | (1,169) | (64,240) | (17,043) |
| RIM  Test | FPC | .22 | .35 | .62 | .48 | .68 | .99 | **1.06** | .52 | .15 | .91 | .58 |
|  | FP&L | **1.01** | **1.02** | **1.03** | **1.03** | **1.04** | **1.03** | **1.01** | .84 | **1.02** | **1.00** | .91 |
|  | GULF | (.02) | .29 | .31 | .45 | .57 | .58 | .39 | .66 | .33 | .69 | .57 |
|  | TECO | **1.00** | **1.00** | **1.00** | .80 | **1.00** | **1.10** | - a - | .90 | **1.00** | **1.20** | **1.00** |
| TRC  Test | FPC | .22 | .35 | .62 | .48 | .68 | **1.00** | **1.88** | .50 | .15 | **1.93** | .58 |
|  | FP&L | .29 | .48 | .67 | .72 | .75 | .27 | .76 | .59 | .19 | .72 | .78 |
|  | GULF | (.00) | .10 | .31 | .23 | .15 | .12 | .06 | .38 | .11 | .30 | .18 |
|  | TECO | .10 | .20 | .30 | .10 | .40 | .50 | - a - | .40 | .20 | .30 | .40 |

1) Absorption Commercial Single Effect 5) Gas Engine Driven Water Chiller 9) New Installation Residential Cogeneration

2) Absorption Commercial Double Effect 6) Double Integrated Appliance 10) Commercial/Industrial Cogeneration

3) Residential Gas Heat Pump and Hot Water 7) Desiccant Dehumidifier 11) Gas Engine Driven Centrifugal Chiller with

4) Gas Engine Driven Air Conditioner 8) New Installation Water Heater Heat Recovery

a) TECO - Not a viable DSM measure. Summer peak of measure is higher than electric baseline technology.

Double-lined cells with bold data passed the test without the addition of incentives.

Shadowed cells nearly passed.

**Table developed by commission staff from exhibits 6, 36, 51 and 156.**

**ISSUE 29:** What should be FPL's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:**  FPL's residential conservation goals should be set at the levels identified in the staff column of the following table. [SHINE]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PROPOSED RESIDENTIAL CONSERVATION GOALS | | | | | | | | | | | | |
|  | WINTER MW | | | | SUMMER MW | | | | ANNUAL GWH | | | |
|  | FPL | Staff | LEAFFSEIA  FCC | DCA | FPL | Staff | LEAF  FSEIA  FCC | DCA | FPL | Staff | LEAF  FSEIA  FCC | DCA |
| 1994 | 77.1 | 77.1 |  |  | 88 | 88 |  |  | 66.5 | 66.5 |  |  |
| 1995 | 157.4 | 157.4 | 196 | 113 | 181 | 181 | 337 | 253 | 149.8 | 149.8 | 116 | 621 |
| 1996 | 236.2 | 236.2 | 283 | 237 | 272 | 272 | 526 | 531 | 239.4 | 239.4 | 489 | 1303 |
| 1997 | 314.5 | 314.5 | 376 | 357 | 362 | 362 | 709 | 800 | 337.2 | 337.2 | 1105 | 1961 |
| 1998 | 393.6 | 393.6 | 464 | 476 | 455 | 455 | 881 | 1064 | 452.8 | 452.8 | 1962 | 2610 |
| 1999 | 467.9 | 467.9 | 558 | 591 | 543 | 543 | 1214 | 1323 | 568.2 | 568.2 | 3048 | 3243 |
| 2000 | 542.2 | 542.2 | 740 | 708 | 631 | 631 | 1211 | 1584 | 683.6 | 683.6 | 3650 | 3885 |
| 2001 |  | 616.5 | 816 | 823 |  | 719 | 1367 | 1842 |  | 799.0 | 4244 | 4517 |
| 2002 |  | 690.8 | 752 | 943 |  | 807 | 1483 | 2111 |  | 914.4 | 4863 | 5175 |
| 2003 |  | 765.1 | 752 | 945 |  | 895 | 1483 | 2115 |  | 1029.8 | 4873 | 5186 |

**Note: The GWH energy goals for a specific year represent single-year impacts for all installations beginning in 1994 through that year.**

**POSITION OF PARTIES**

**FPL:** The annual goals that should be adopted are set forth on Exhibit 15, Document No. 1. On a cumulative basis these goals would be 631 MW (summer), 542 MW (winter) and 684 GWH for 1994-2003.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** The Department's proposed numeric conservation goals are presented in Table 1.

Table 1: FPL--Proposed Residential Numeric Conservation Goals

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Gwh** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 621 | 113 | 253 |
| 1996 | 1301 | 237 | 531 |
| 1997 | 1961 | 357 | 800 |
| 1998 | 2610 | 476 | 1064 |
| 1999 | 3243 | 591 | 1323 |
| 2000 | 3885 | 708 | 1584 |
| 2001 | 4517 | 823 | 1842 |
| 2002 | 5175 | 943 | 2111 |
| 2003 | 5186 | 945 | 2115 |

**DOE:** No Position.

**LEAF/EVANS:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| **1994** |  |  |  |
| **1995** | **116** | **196** | **337** |
| **1996** | **489** | **283** | **526** |
| **1997** | **1105** | **376** | **709** |
| **1998** | **1962** | **464** | **881** |
| **1999** | **3048** | **558** | **1214** |
| **2000** | **3650** | **740** | **1211** |
| **2001** | **4244** | **816** | **1367** |
| **2002** | **4863** | **752** | **1483** |
| **2003** | **4873** | **752** | **1483** |

**FCC:** FPL's goals should be as proposed by LEAF. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA's proposed residential numeric conservation goals have been presented in Table 4.

***Table 4: Florida Power & Light Company -- Proposed Residential Numeric Conservation Goals***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 116 | 196 | 337 |
| 1996 | 489 | 283 | 526 |
| 1997 | 1,105 | 376 | 709 |
| 1998 | 1,962 | 464 | 881 |
| 1999 | 3,048 | 558 | 1,214 |
| 2000 | 3,650 | 740 | 1,211 |
| 2001 | 4,244 | 815 | 1,367 |
| 2002 | 4,863 | 752 | 1,483 |
| 2003 | 4,873 | 752 | 1,483 |

**CITY GAS:** For each year of the period at issue, FPL's annual conservation goals should include a specific natural gas substitution goal of 5 MW for non-cogeneration projects.

**PEOPLES:** FPL's annual winter and summer kW and kWh conservation goals should include goals for natural gas substitution measures in the residential sector as part of the overall goals recommended by Mr. Krutsinger.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS**: The Commission's rule requires each utility to propose numeric goals for a ten year horizon period. Staff proposes to accept FPL's RIM based goals for each year during the period 1994-2000. Additionally, because FPL proposed a goal of zero for the last three years of the ten year period, staff proposes to set FPL's goals for each of the years 2001-2003 based on the company's proposed incremental goals in 2000 (74 MW Winter, 88 MW Summer, 115 GWH).

FPL's believes that it is premature to set goals for the 2001-2003 period as the Company's DSM-RIM goals are projected to meet new capacity needs through January 1, 2002 when 340 MW of resource options are required to maintain system reliability criteria. (Tr. 74, Ex. 3, p. 61) FPL excludes 210 MW of cost-effective DSM-RIM in 2001, because FPL's cost-effective DSM-RIM was insufficient to defer in its entirety the 340 MW need in 2002. (Tr. 74) Staff proposes to include the 210 MW of uncommitted DSM-RIM in the Company's goals which may ultimately be combined with additional DSM resources if found, or with a RFP/standard offer for 130 MW (340 MW - 210 MW) to satisfy the 2002 need.

FPL witness Dr. Sim testified that no decision is currently needed in regard to either building a new unit or increasing the amount of DSM above FPL's RIM goal. (Tr. 74) Dr. Sim testified that FPL would back before the Commission in 1996 requesting a determination of need for a 416 MW combined cycle unit. (Tr. 439, 450) The company's current resource plan indicates that 340 MW of DSM in 2002 would meet the reliability standards, of which 210 MW is projected to be achievable but uncommitted. Staff disagrees with FPL's decision to set seven year goals and exclude 210 MW of cost-effective DSM-RIM. The mismatch in resource need between the 416 MW supply option and the 340 MW DSM option is due primarily to the need to construct additional capacity to compensate for system line losses and generating plant unavailabilities from planned and forced maintenance which are not present in the DSM option.

FPL witness Mr. Hugues indicated that there is a very good possibility that due to changes in technology, FPL's R&D program might be able to achieve the additional 130 MW of DSM-RIM necessary to defer the 2002 need. (Tr. 620, 4499) FPL's R&D program may result in approved programs producing additional capacity savings in much the same manner as the 1990 DSM Plan for the 1990 produced an additional 342 MW. (Tr. 619-20) The current R&D program is evaluating approximately seven C/I programs and four residential programs. (Tr. 620) Dr. Sim testified that FPL had previously exceeded its internal DSM goals, and that it is possible in the future, although not as likely as in past years, due to a greater understanding of the match between DSM and resource needs. (Tr. 446) Staff believes that it is not unreasonable to assume that FPL might exceed its proposed goal considering its prior history of exceeding internal DSM goals, and the potential for additional contributions from R&D programs and green pricing options.

Various intervening parties such as LEAF, DCA, FLASEIA, FCC advocate the use of Exhibit 90, an updated version summarizing SRC's Best Practice goal for each investor owned utility. The Best Practices scenario contains some very optimistic assumptions such as the removal of all investment cost barriers to conservation, and was initially portrayed by SRC as an upper bound of what could be achieved if money were no object and conservation was sold door to door. (Tr. 2818, 4297) Staff does not recommend this approach, as SRC's Best Practices scenario would not establish meaningful numeric goals due to the lack of utility specific planning information. SRC's Best Practices demand savings of 2120 MW through 2003, exceed FPL's resource needs of 1646 MW through 2003. (Tr. 4297) DCA witness McDonald, the principal in charge of the SRC study agreed that a utility specific analysis with assumptions specific to its service territory would be a more accurate estimate of the cost-effective potential than the more generalized SRC study. (Tr. 2722-24)

Staff believes that FPL's decision to decline to set DSM goals for the period 2001-2003 based on the belief that it is too early to do so is contradictory to the intent of the conservation goal rule which requires ten years of numeric goals. For this reason, and the belief that various R&D projects, and green pricing options may produce additional energy and demand savings, staff recommends a residential goal of 765 Winter, 895 MW Summer, and 1,030 GWH in 2003.

**ISSUE 30:** What should be FPL's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** FPL's commercial/industrial conservation goals should be set at the levels identified in the Staff column of the following table. [SHINE]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PROPOSED COMMERCIAL/INDUSTRIAL CONSERVATION GOALS | | | | | | | | | | | | |
|  | WINTER MW | | | | SUMMER MW | | | | ANNUAL GWH | | | |
|  | FPL | Staff | LEAFFSEIAFCC | DCA | FPL | Staff | LEAF  FSEIA  FCC | DCA | FPL | Staff | LEAF  FSEIA  FCC | DCA |
| 1994 | 9.3 | 9.3 |  |  | 23 | 23 |  |  | 66.6 | 66.6 |  |  |
| 1995 | 69.2 | 69.2 | 73 | 28 | 111.3 | 111.3 | 174 | 127 | 138.7 | 138.7 | 74 | 369 |
| 1996 | 92.8 | 92.8 | 145 | 58 | 166.6 | 166.6 | 340 | 266 | 211.8 | 211.8 | 309 | 773 |
| 1997 | 114.3 | 114.3 | 176 | 88 | 223.3 | 223.3 | 458 | 400 | 292.4 | 292.4 | 699 | 1165 |
| 1998 | 136.1 | 136.1 | 190 | 117 | 285.2 | 285.2 | 557 | 533 | 383.3 | 383.3 | 1240 | 1550 |
| 1999 | 157.9 | 157.9 | 203 | 145 | 352.5 | 352.5 | 652 | 662 | 473.0 | 473.0 | 1927 | 1927 |
| 2000 | 179.7 | 179.7 | 216 | 174 | 419.8 | 419.8 | 750 | 793 | 562.7 | 562.7 | 2308 | 2308 |
| 2001 |  | 201.5 | 229 | 202 |  | 487.1 | 847 | 922 |  | 652.4 | 2683 | 2684 |
| 2002 |  | 223.3 | 244 | 232 |  | 554.4 | 956 | 1057 |  | 742.1 | 3074 | 3075 |
| 2003 |  | 245.1 | 244 | 232 |  | 621.7 | 956 | 1059 |  | 831.8 | 3081 | 3081 |

**Note: The GWH energy goals for a specific year represent single-year impacts for all installations beginning in 1994 through that year.**

**POSITION OF PARTIES**

**FPL:** The annual goals that should be adopted are set forth on Exhibit 15, Document No. 1. On a cumulative basis these goals would be 420 MW (summer), 180 MW (winter) and 563 GWH for 1994-2003.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** The Department's proposed numeric conservation goals are presented in Table 2.

Table 2: FPL--Proposed C/I Numeric Conservation Goals

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Gwh** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 369 | 28 | 127 |
| 1996 | 773 | 58 | 266 |
| 1997 | 1165 | 88 | 400 |
| 1998 | 1550 | 117 | 533 |
| 1999 | 1927 | 145 | 662 |
| 2000 | 2308 | 174 | 793 |
| 2001 | 2684 | 202 | 922 |
| 2002 | 3075 | 232 | 1057 |
| 2003 | 3081 | 232 | 1059 |

**DOE:** No position.

**LEAF/EVANS:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| **1994** |  |  |  |
| **1995** | **74** | **73** | **174** |
| **1996** | **309** | **145** | **340** |
| **1997** | **699** | **176** | **458** |
| **1998** | **1240** | **190** | **557** |
| **1999** | **1927** | **203** | **652** |
| **2000** | **2308** | **216** | **750** |
| **2001** | **2683** | **229** | **847** |
| **2002** | **3074** | **244** | **956** |
| **2003** | **3081** | **244** | **956** |

**FCC:** FPL's goals should be as proposed by LEAF. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA's proposed commercial/industrial numeric conservation goals have been presented in Table 5.

***Table 5: Florida Power & Light Company -- Proposed C/I Numeric Conservation Goals***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 74 | 73 | 174 |
| 1996 | 309 | 145 | 340 |
| 1997 | 699 | 176 | 458 |
| 1998 | 1,240 | 190 | 557 |
| 1999 | 1,927 | 203 | 652 |
| 2000 | 2,308 | 216 | 750 |
| 2001 | 2,683 | 229 | 847 |
| 2002 | 3,074 | 244 | 956 |
| 2003 | 3,081 | 244 | 956 |

**CITY GAS:** For each year of the period at issue, FPL's annual conservation goals should include a specific natural gas substitution goal of 5 MW for non-cogeneration projects.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS**: The rationale for staff's recommended commercial/industrial goals for FPL is identical to Issue 29. It is for the reasons stated in Issue 29 that staff proposes the Commission set FPL's commercial/industrial goals at the levels identified in staff's recommendation summary table. Goals proposed by other parties are listed for comparison.

**ISSUE 31:** Should a percentage of FPL's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

**RECOMMENDATION:** No. However, FPL should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts. This report should be filed with FPL's DSM Plan. [PALECKI, SHINE]

**POSITION OF PARTIES**

**FPL:** No. These customers are eligible for and served by FPL's conservation programs. If the Commission establishes RIM-based goals, low and very low income customers will benefit from all DSM performed regardless of whether they participate. These customers would be penalized by TRC-based DSM unless they participated, and even then could pay higher bills unless their savings were sufficient to offset increased rates.

**FPC:** No position.

**GULF:** No position.

**TECO:** Did not intervene in FPL's docket.

**DCA:** Yes. See answer to Issue 23.

**DOE:** No position.

**LEAF/EVANS:** Yes. Adopt FCC's position.

**FCC:** Fifteen percent of the residential conservation goals of FPL should be reserved for customers with incomes below 125% of the poverty level. Fifteen percent of FPL's planned residential conservation cost recovery charges should be earmarked to provide energy conservation programs for these customers. A statewide low income conservation fund should be created, administered by the Florida Department of Community Affairs' weatherization program. The program would be designed within the same three month time frame as other utility energy conservation programs are designed.

**FlaSEIA:** Yes. Supports FCC's position on this issue.

**CITY GAS:** No position.

**PEOPLES:** FPL's programs designed to implement its residential conservation goals should be available to all customers on a non-discriminatory basis. As a matter of policy, Peoples Gas does not object to FPL making special efforts to inform low-income customers of available programs nor to a small percentage "set-aside" for such customers, so long as such practices are cost-effective.

**WFNG:** Agree with Peoples Gas.

**FIPUG:** No. Income subsidies for low income families require social welfare analyses that are beyond the scope of the Commission's authority and would unnecessarily duplicate the duties of other authorized government agencies.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** As stated in Issue 23, staff has recommended that the Commission set overall goals consistent with the Commission's rule. All customers, including low-income customers, should benefit from RIM-based DSM programs. This is because RIM based programs better insure that both participating and non-participating customers benefit from utility sponsored conservation programs. Additional generating is deferred and the rates paid by low-income customers are less than they otherwise would have been. (Tr. 4311)

If the Commission adopts TRC-based goals, staff agrees that low-income customers would be penalized unless they participate in utility conservation programs. Even if they participated, they could pay higher bills unless their savings were sufficient to off-set the increased rates caused by TRC based programs.

Regardless of whether the Commission adopts RIM-based goals or TRC-based goals, staff believes that utilities should be sensitive to the special needs and limitations faced by low income customers. Once overall goals have been established in this docket, utilities must develop conservation programs to achieve the goals. Care should be taken during program development to ensure that low income customers have an equal opportunity to participate in utility conservation programs. In addition, low income customers that do participate should also have the opportunity to realize their fair share of savings from participating in conservation programs. In order to ensure that low income customers are fairly treated, utilities should be required to study and report to the Commission whether a fair percentage of DSM dollars will be made available to low income ratepayers under the utility's DSM portfolio.

Staff also recommends that FPL, FPC, GULF, and TECO be encouraged to participate in any statewide low-income conservation fund administered by DCA.

**FPC's Numeric Goals**

**ISSUE 32:** If numeric goals should be set for each major end-use category within each market segment, what should FPC's goals be?

**RECOMMENDATION:**Overall numeric goals should be set for the residential and commercial/industrial sectors consistent with Rule 25-17.0021, Florida Administrative Code. Staff believes setting end-use goals is too much governmental interference and information is too sparse to conclude that goals for solar, renewables, and natural gas substitution will result in large power plant savings that have minimal rate impacts. If numeric goals are set by end-use, the Commission should rely on Exhibit No. 146. [HAFF]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** As observed in response to Issue 22, FPC believes setting goals for each major end-use category within each market segment is inappropriate. The conservation goals rule, developed after debate on whether it should incorporate end-use goals, was adopted in a form prescribing the development of overall goals for only two market segments: Residential and Industrial\Commercial. This docket should not be used to revisit the rulemaking process. Breaking conservation goals into small segments results in the misapplication of funds to less efficient programs, contrary to the goal of conservation.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** Goals should be set in residential/ -commercial totals and for several key market segments where public policy supports: New construction, low income residential, solar/renewables and natural gas substitution. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** No position.

**FCC:** FPC's goals should be consistent with the SRC study's best practices scenario under total resource cost analysis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** No position.

**CITY GAS:** No position.

**PEOPLES:** The Commission should recognize that natural gas substitutes for electricity are not an end use such as those identified in Rule 25-17.0021(3)(a-d)&(i-q). Rather, natural gas substitutes comprise a range of end use energy options. FPC's Gas DSM goals, with respect to customers served by both FPC and Peoples, should be a cumulative total of 25 MW of summer/winter peak electric demand reduction and associated electric energy reductions.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** Tallahassee does not believe that numeric goals should be set for each major end-use within each market segment. Instead, the Commission should set goals for each market segment (residential, commercial, etc.) and allow the individual utility to design a unique set of DSM options which can achieve this goal by taking advantage of the particular mix of end-uses within each market segment.

**CEED:** No position.

**STAFF ANALYSIS:** Staff believes the Commission should set overall goals consistent with its rules. Overall goals will allow FPC the flexibility to respond to changing technological and economic circumstances. DCA witness McDonald stated that it is important that goals be set on an aggregate basis and not by end-use. (Tr. 2649, 2719)

If the Commission decides to set end-use goals, staff recommends relying on FPC's Exhibit No. 146. Data for non-dispatchable measures would have to be increased by 125% in order to be consistent with staff's recommendations in Issues 37 and 38 that FPC's goals should be set at 100% RIM levels.

**ISSUE 33:** Pursuant to the decision in Issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPC's goals be?

**RECOMMENDATION:** The Commission should require FPC to develop alternate funding sources such as voluntary Green Pricing where customers contribute to a fund to be used to promote the installation of solar water heating and other renewable measures. FPC should evaluate voluntary Green Pricing in conjunction with the development of DSM programs designed to meet FPC's numeric goals. [HAFF]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** FPC believes that even if the Commission has this authority, it should not exercise it. See position on Issue 32.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** Yes. The Department supports the numeric solar energy goals proposed by FlaSEIA.

**DOE:** No Position.

**LEAF/EVANS:** Yes. Adopt FSEIA's position.

**FCC:** The Commission should set energy conservation goals for solar and renewable energy sources in order to encourage the diversification, and reduce the price of Florida's residential energy. FPC's goals should be set in accordance with the expert intervenor testimony presented on this issue. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA proposes aggressive solar energy goals, presented in Table 6, for energy, winter demand, and summer demand. FlaSEIA's alternative recommendation is that the Commission select either moderate or base case solar energy goals which have been presented in Tables 7 and 8. FlaSEIA proposes that these goals be applied to the residential class alone.

***Table 6: Florida Power Corporation -- Proposed Solar Energy Goals (Aggressive)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 9,122 | 3.2 | 0.9 |
| 1995 | 18,782 | 6.6 | 1.9 |
| 1996 | 28,965 | 10.1 | 2.9 |
| 1997 | 39,650 | 13.9 | 4.0 |
| 1998 | 50,824 | 17.8 | 5.1 |
| 1999 | 62,492 | 21.9 | 6.2 |
| 2000 | 74,651 | 26.1 | 7.5 |
| 2001 | 87,301 | 30.6 | 8.7 |
| 2002 | 100,442 | 35.2 | 10.0 |
| 2003 | 114,077 | 39.9 | 11.4 |

***Table 7: Florida Power Corporation -- Proposed Solar Energy Goals (Moderate)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 5,473 | 1.9 | 0.5 |
| 1995 | 11,269 | 3.9 | 1.1 |
| 1996 | 17,379 | 6.1 | 1.7 |
| 1997 | 23,790 | 8.3 | 2.4 |
| 1998 | 30,494 | 10.7 | 3.0 |
| 1999 | 37,495 | 13.1 | 3.7 |
| 2000 | 44,791 | 15.7 | 4.5 |
| 2001 | 52,381 | 18.3 | 5.2 |
| 2002 | 60,265 | 21.1 | 6.0 |
| 2003 | 68,446 | 24.0 | 6.8 |

***Table 8: Florida Power Corporation -- Proposed Solar Energy Goals (Base)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 3,649 | 1.3 | 0.2 |
| 1995 | 7,513 | 2.6 | 0.3 |
| 1996 | 11,586 | 4.1 | 0.5 |
| 1997 | 15,860 | 5.6 | 0.7 |
| 1998 | 20,330 | 7.1 | 0.9 |
| 1999 | 24,997 | 8.7 | 1.1 |
| 2000 | 29,861 | 10.5 | 1.3 |
| 2001 | 34,921 | 12.2 | 1.5 |
| 2002 | 40,177 | 14.1 | 1.7 |
| 2003 | 45,631 | 16.0 | 2.0 |

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** See response to Issue 32.

**CEED:** No position.

**STAFF ANALYSIS:**  Green Pricing is a relatively new concept currently in use in limited jurisdictions. Customers voluntarily choose to donate money on their monthly bills for the utility to engage in the procurement and implementation of renewable technologies. Staff believes that FPC should consider this option during the program development and submittal stage of this docket.

Green Pricing is discussed in more detail in issue 24 for Florida Power and Light as they currently offer a solar water heating program. However, staff recommends similar treatment for FPC as well as the other IOUs to encourage the development of solar and renewable energy resources.

**ISSUE 34:** Pursuant to the decision in Issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C., and if so, what should FPC's goals be?

**RECOMMENDATION:** No. [HAFF]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** See Position on Issue 32.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** Yes. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** Yes. Adopt DCA's position.

**FCC:** The Commission should set separate goals where it appears that cross-subsidization of utility conservation programs would otherwise result, or where there are strong societal interests in a particular sector having a conservation goal. FPC's goals should be consistent with the SRC study's best practices scenario under total resource cost analysis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** Yes. No position on goals levels.

**CITY GAS:** No position.

**PEOPLES:** Yes. No position as to the levels of the goals.

**WFNG:** Yes. No position as to the levels of the goals.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** See response to Issue 32.

**CEED:** No position.

**STAFF ANALYSIS:** Although the Commission has the discretion to establish end-use specific goals as discussed in issue 22, separate reporting of these goals is not desirable or consistent with the intent of overall goals established for each utility.

As stated in Issue 32, staff believes the Commission should set overall goals consistent with its rules. Energy savings associated with new construction is derived from the energy efficient building code which is the responsibility of the Department of Community Affairs.

**ISSUE 35:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPC's goals be?

**RECOMMENDATION:** No. The Commission should not set goals for FPC for natural gas substitution for electricity. [MILLS, HAFF]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** See Position on Issue 32.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** Yes. No position on goals levels.

**DOE:** No Position.

**LEAF/EVANS:** Yes. No position on these goals levels.

**FCC:** The Commission should set energy conservation goals for natural gas substitutes for electricity in order to encourage the diversification, and reduce the price of Florida's residential energy. FPC's goals should be set in accordance with the expert intervenor testimony presented on this issue. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** No position.

**CITY GAS:** The Commission should set natural gas substitution goals for FPC. City Gas has no position on what those goals should be.

**PEOPLES:** Yes. The Commission should recognize that natural gas substitutes for electricity are not an end use such as those identified in Rule 25-17.0021(3)(a-d)&(i-q). Rather, natural gas substitutes comprise a range of end use energy options. FPC's Gas DSM goals, with respect to customers served by both FPC and Peoples, should be a cumulative total of 25 MW of summer/winter peak electric demand reduction and associated electric energy reductions.

**WFNG:** Yes, there should be goals for natural gas substitution, but no position at this time as to those goals.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** See response to Issue 32.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not set specific goals for natural gas substitution for electricity. Utilities' analyses indicate a lack of sufficiently accurate information upon which the Commission could base its decision to set specific goals. For future goal evaluations, electric utilities should be directed to gather information sufficient to set goals for use of gas alternatives to electricity end use. See the next issue for further discussion.

Electric utilities should continue to consider measures to reduce electric energy end use without regard to the input fuel used to reduce electricity demand. The Commission has long advocated and recognized the prudency of electric utilities' consideration of natural gas use as a means to mitigating volatility of winter peak demands in Florida. The following is from the Commission's order regarding the investigation into the cold weather emergency occurring in peninsular Florida, December 23-25, 1989:

Utilities are encouraged to continue to develop and implement cost-effective conservation programs approved by the Commission, including those that promote the cost-effective use of natural gas to moderate Florida's dependence on electric heating. FPSC Docket No. 900071-EG, Order No. 22798 at 7 (March 20, 1990)

Witnesses for the electric utilities in this docket supported the use of measures that passed the RIM and the participant tests. Staff believes that if a measure is cost-effective, as defined by the Commission in this docket, whether for gas substitute or any other measure the utility should adopt its use based on its cost-effectiveness. According to FPL's Mr. Sims, "From our standpoint we believe that if a gas measure passes both the RIM and participants' test, that it's cost-effective for all of our customers, then we won't have a concern with that measure being implemented." (Tr. 547) Additionally, FPL's Mr. Hugues followed with, "We would recommend to our customers any measure, regardless of whether it's gas or any other measure, that it's cost effective for both the participants and nonparticipant alike. So it would have to pass both the RIM and the participants test." (Tr. 665) Mr. Jacob, for FPC, supported the RIM and participant tests for measures to be considered cost-effective for conservation. (Tr. 986-987) Mr. Kilgore, for GULF, concluded that RIM had shortcomings then recommended it because RIM does yield the correct conclusions for GULF and its customers. (Tr. 1203) Mr. Currier, of TECO, encouraged the Commission to support RIM and the Participant test as the standard for adopting DSM measures. He called it a "no-loser practice."

**ISSUE 36:** Should the Commission direct FPC to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

**RECOMMENDATION:** No. However, the Commission should require FPC to conduct research and demonstration projects on the eleven gas technologies reviewed in this docket to develop Florida specific information on performance and cost-effectiveness of those technologies for heating, cooling, dehumidification and water heating. FPC should be required to file within six months, in a separate docket, its plans for these research and development projects in accord with the provisions of 25-17.001(5)(f). The Commission should encourage and even consider rewarding FPC if the company cooperatively develops joint projects with gas utilities that produce measurable conservation savings. [MILLS, HAFF]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** This docket deals with establishing numerical conservation goals; issues regarding development of specific programs are premature. Even in the context of a subsequent program development docket, the Commission should refrain from mandating gas marketing programs. The Commission has long recognized that absent extraordinary circumstances it lacks authority to order specific programs. No such circumstances are present in this case, especially since FPC's First Amendment rights would be adversely affected by forcing it to market a competitor's product. Selection of gas over electricity should be a matter of customer choice.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** No position.

**DOE:** No position.

**LEAF/EVANS:** Yes.

**FCC:** Yes, the Commission should direct FPC to implement the natural gas pilot programs proposed by the natural gas companies.

**FlaSEIA:** No position.

**CITY GAS:** Yes.

**PEOPLES:** Market pilot programs involving cost-effective commercial/industrial natural gas technologies can represent measures by which FPC can implement electric conservation through natural gas substitutes for electricity. Any such measures should be undertaken within the context of an overall plan to achieve the natural gas DSM goals for FPC set forth in Mr. Krutsinger's testimony.

**WFNG:** Yes, as is reflected in Mr. McIntyre's testimony.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** Tallahassee believes that fuel substitution can be a viable DSM alternative. However, requiring FPC to fund the promotion of this alternative without seeking to allocate the cost of promotion and support between the electric and gas utilities is inappropriate. If fuel substitution is to be supported as a conservation measure, its costs should be shared between the two utilities in some relationship to the benefit each derives from the program.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not order FPL to conduct joint utility pilot programs with any gas utilities, because to order cooperation will not be productive. During this docket, City Gas and FPL attempted to negotiate a cooperative gas pilot project. (Tr. 3174) They have been unable to reach an agreement on the project. FPL and City Gas have an unending dispute over appropriate inputs to the cost-effectiveness tests. (Tr. 3174-75) FPL is unsure of current data available on gas measures, and wants actual field data. (Tr. 669) FPL has agreed with the concept of demonstration projects; it raised objections as to how such program were to be conducted. While recognizing that it is the input values that are in dispute, FPL insisted on prescreening the demonstration measures prior to implementation. (Tr. 4472-73) City Gas agrees that it is a question of input values, but that FPL's prescreening is an attempt to prejudge the demonstration project. (Tr. 4476)

Staff is not finding fault or judging the merits of the above dispute. The information is provided to demonstrate the difficulties of a demonstration project based upon mandated cooperation. Staff is concerned that the Commission may be forced to referee every detail of each project for all the utilities if the Commission orders the electric utilities to do demonstration gas projects with gas utilities. The ill will from a forced marriage between utilities and the inevitable and costly litigation, resulting in data that will possibly remain in dispute is not beneficial for utilities or customers. Staff favors any cooperative efforts or required independent projects with the data used later to develop DSM programs for the Commission's approval.

The need for accurate data is shown by the inconsistency of electric utilities' calculations of cost-effectiveness of gas technologies. The results of their evaluations of the eleven gas technologies in this docket varied immensely due to electric utilities' assumptions for input data. (Tr. 1563-64, 2329, 3653, 3665, 3668, 3675, 4188, 4377) Mr. German, witness for PGS, cited examples of unreasonable assumptions and inconsistences in the electric utilities' evaluations of the eleven gas technologies. (Tr. 2327-32) GULF's assumptions for the eleven gas technologies for the base year totaled 577 pages.

Not considering cogeneration, which might be considered a demand side alternative, the conclusions of all four electric utilities were that only one gas technology, desiccant dehumidifying, passed both the RIM and participant test. (Tr. 2329) (Ex. 6, 36, 51, 156) FPL's evaluation showed that nine of the eleven technologies passed the electric RIM test. (Ex. 6) FPC's evaluation showed that only one passed the RIM test, but two others have ratios of .99 and 91. The failure of most of the technologies to pass FPC's RIM test probably was caused by the loading of an incentive amount to the participant test to bring it up to 1.0 benefit/cost ratio. (Ex. 36) GULF's evaluation had no measure passing any of the tests. (Ex. 51) TECO's evaluation showed that eight of eleven passed the RIM test. (Tr. 156)

The nearly total failure of the gas technologies to pass the electric utilities' calculation of the participant test is difficult to accept. Staff does not believe that approximately 600,000 existing Florida gas customers have made a mistake in their economic decision, nor that the manufacturers of gas technologies would commit resources to develop and market new gas technologies if they are all destined to be market failures. (Tr. 3668, 3673, 3675)

The unusually diverse results of electric utilities' evaluations appear to be based on input assumptions not grounded in Florida specific applications. The Commission should, therefore, require electric utilities to develop Florida specific data through research and demonstration projects on gas technologies. (Tr. 669) Rule 25-17.001(5)(f), F.A.C., assumes aggressive research and development projects are "... an ongoing part of the practice of every well managed electric utility's programs ...". The data gathered would be for the performance and cost-effectiveness of gas technologies for heating, cooling, dehumidification and water heating. (Tr. 1563-64, 2327-32, 3174-75, 3653, 3653, 3665, 3668, 3675, 4188, 4377) (Ex. 6, 36, 51, 156)

For a comparison of the eleven gas technologies results refer to the table on the next page. Note the range of values in the calculations. Those technologies passing a test for any particular utility are highlighted with double outlines. Those above 0.84 on the RIM test are shaded.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| GAS TECHNOLOGIES | | | | | | | | | | | | |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Participant Test | FPC | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | **1.77** | 1.00 | 1.00 | **2.12** | 1.00 |
|  | FP&L | .22 | .31 | .54 | .46 | .42 | .28 | .41 | .53 | .21 | .45 | .49 |
|  | GULF | (.01) | .15 | .42 | .35 | .18 | .19 | .07 | .57 | .17 | .37 | .22 |
|  | TECO | (39,267) | (20,024) | (378) | (5,923) | (7,039) | (118) | - a - | (47) | (1,169) | (64,240) | (17,043) |
| RIM  Test | FPC | .22 | .35 | .62 | .48 | .68 | .99 | **1.06** | .52 | .15 | .91 | .58 |
|  | FP&L | **1.01** | **1.02** | **1.03** | **1.03** | **1.04** | **1.03** | **1.01** | .84 | **1.02** | **1.00** | .91 |
|  | GULF | (.02) | .29 | .31 | .45 | .57 | .58 | .39 | .66 | .33 | .69 | .57 |
|  | TECO | **1.00** | **1.00** | **1.00** | .80 | **1.00** | **1.10** | - a - | .90 | **1.00** | **1.20** | **1.00** |
| TRC  Test | FPC | .22 | .35 | .62 | .48 | .68 | **1.00** | **1.88** | .50 | .15 | **1.93** | .58 |
|  | FP&L | .29 | .48 | .67 | .72 | .75 | .27 | .76 | .59 | .19 | .72 | .78 |
|  | GULF | (.00) | .10 | .31 | .23 | .15 | .12 | .06 | .38 | .11 | .30 | .18 |
|  | TECO | .10 | .20 | .30 | .10 | .40 | .50 | - a - | .40 | .20 | .30 | .40 |

1) Absorption Commercial Single Effect 5) Gas Engine Driven Water Chiller 9) New Installation Residential Cogeneration

2) Absorption Commercial Double Effect 6) Double Integrated Appliance 10) Commercial/Industrial Cogeneration

3) Residential Gas Heat Pump and Hot Water 7) Desiccant Dehumidifier 11) Gas Engine Driven Centrifugal Chiller with

4) Gas Engine Driven Air Conditioner 8) New Installation Water Heater Heat Recovery

a) TECO - Not a viable DSM measure. Summer peak of measure is higher than electric baseline technology.

Double-lined cells with bold data passed the test without the addition of incentives.

Shadowed cells nearly passed.

**Table developed by commission staff from exhibits 6, 36, 51 and 156.**

**ISSUE 37:** What should be FPC's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:**  FPC's residential conservation goals should be set at the levels identified in the staff column of the following table. [HAFF]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PROPOSED RESIDENTIAL CONSERVATION GOALS | | | | | | | | | | | | |
|  | WINTER MW | | | | SUMMER MW | | | | ANNUAL GWh | | | |
|  | FPC | Staff | LEAFFSEIA  FCC | DCA | FPC | Staff | LEAF  FSEIA  FCC | DCA | FPC | Staff | LEAF  FSEIA  FCC | DCA |
| 1994 | 40 | 43 | ---- | ---- | 5 | 11 | ---- | ---- | 6 | 12 | ----- | ---- |
| 1995 | 81 | 86 | 57 | 50 | 14 | 30 | 20 | 14 | 15 | 24 | 12 | 63 |
| 1996 | 125 | 133 | 93 | 94 | 32 | 50 | 36 | 27 | 26 | 38 | 44 | 120 |
| 1997 | 171 | 184 | 134 | 157 | 51 | 71 | 54 | 46 | 39 | 60 | 108 | 200 |
| 1998 | 218 | 236 | 181 | 234 | 71 | 93 | 75 | 68 | 53 | 78 | 215 | 297 |
| 1999 | 266 | 290 | 231 | 322 | 92 | 116 | 98 | 93 | 69 | 100 | 369 | 409 |
| 2000 | 314 | 343 | 283 | 419 | 113 | 140 | 122 | 122 | 86 | 127 | 480 | 533 |
| 2001 | 362 | 395 | 332 | 495 | 134 | 164 | 146 | 144 | 103 | 145 | 569 | 630 |
| 2002 | 408 | 445 | 382 | 579 | 155 | 188 | 170 | 168 | 121 | 169 | 664 | 736 |
| 2003 | 444 | 483 | 418 | 630 | 174 | 209 | 192 | 183 | 136 | 184 | 724 | 801 |

**Note: The GWH energy goals for a specific year represent single-year impacts for all installations beginning in 1994 through that year.**

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** FPC's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994 to 2003 should be those goals included in the testimony of Mr. Michael Jacob in his Exhibit No. 35.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** The Department's proposed numeric conservation goals are presented in Table 3.

Table 3: FPC--Proposed Residential Numeric Conservation Goals

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Gwh** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 63 | 50 | 14 |
| 1996 | 120 | 94 | 27 |
| 1997 | 200 | 157 | 46 |
| 1998 | 297 | 234 | 68 |
| 1999 | 409 | 322 | 93 |
| 2000 | 533 | 419 | 122 |
| 2001 | 630 | 495 | 144 |
| 2002 | 736 | 579 | 168 |
| 2003 | 801 | 630 | 183 |

**DOE:** No position.

**LEAF/EVANS:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| **1994** |  |  |  |
| **1995** | **12** | **57** | **20** |
| **1996** | **44** | **93** | **36** |
| **1997** | **108** | **134** | **54** |
| **1998** | **215** | **181** | **75** |
| **1999** | **369** | **231** | **98** |
| **2000** | **480** | **283** | **122** |
| **2001** | **569** | **332** | **146** |
| **2002** | **664** | **382** | **170** |
| **2003** | **724** | **418** | **192** |

**FCC:** FPC's goals should be set as proposed by LEAF. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA's proposed residential numeric conservation goals have been presented in Table 9.

***Table 9: Florida Power Corporation -- Proposed Residential Numeric Conservation Goals***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 12 | 57 | 20 |
| 1996 | 44 | 93 | 36 |
| 1997 | 108 | 134 | 54 |
| 1998 | 215 | 181 | 75 |
| 1999 | 369 | 231 | 98 |
| 2000 | 480 | 283 | 122 |
| 2001 | 569 | 332 | 146 |
| 2002 | 664 | 382 | 170 |
| 2003 | 724 | 418 | 192 |

**CITY GAS:** No position.

**PEOPLES:** FPC's annual winter and summer kW and kWh conservation goals should include goals for natural gas substitution measures in the residential sector as part of the overall goals recommended by Mr. Krutsinger.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** Tallahassee supports FPC's proposed goals reflected in Exhibit 35.

**CEED:** No position.

**STAFF ANALYSIS:** DCA is pursuing numeric DSM goals based on the "best practices" scenario. These goals are unobtainable because "best practices" assumes no administrative, marketing, overhead, equipment, or monitoring costs. Numeric DSM goals based on an adjusted "best practices" basis are being pursued by LEAF, FSEIA, and FCC. No party was able to provide the rate impacts of adopting DSM goals based on "best practices". Staff is opposed to goals based on unobtainable best practices assumptions.

FPC separated the cost-effective (RIM) demand and energy savings identified on page 32 of its CEGRR report into two categories: dispatchable and non-dispatchable. To account for factors such as free riders, overlapping measures, and interaction with building codes, FPC argued that non-dispatchable demand and energy savings should each be reduced by 25%. (Tr. 986) Thus, FPC's proposed goals are the sum of 100% of the dispatchable savings and 75% of the non-dispatchable savings.

Chairman Deason questioned the validity of FPC's treatment of free riders. (Tr. 1053-55) He questioned FPC as to why free riders were addressed after the calculation of cost-effective DSM, rather than on an individual measure basis before the calculation. Staff shares similar concerns. Various demand-side measures have vastly different free rider impacts. Staff recommends that it would have been more appropriate for FPC to address these impacts on an individual measure basis, prior to calculating each measure's cost-effectiveness, rather than apply a blanket 25% reduction to all non-dispatchable measures. FPC should be directed to deal with the free rider impacts in its program implementation when FPC files its conservation plan. Witness McDonald stated that programs can be designed in a way that minimizes free riders (Tr. 2646), which contradicts FPC's position on the impact on demand and energy savings.

The record shows some uncertainty in the way that FPC came up with the 25% downward adjustment. (Tr. 1048-49) Although Witness Jacob stated that the effect of free riders was different for the residential class than for the commercial/industrial class, FPC decreased the demand and energy savings for both classes by the same 25% value to come up with its goals. (Tr. 1050)

While FPC's proposed goals are based on the RIM test, staff does not recommend that the Commission adopt them. Rather, staff recommends that FPC's numeric demand and energy goals be set at 100% of the total savings of all residential measures that pass the RIM test. Staff's recommended demand and energy goals for FPC are aggressive but reasonable. They represent all cost-effective DSM under the RIM test.

**ISSUE 38:** What should be FPC's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:**  FPC's commercial/industrial conservation goals should be set at the levels identified in the staff column of the following table. [HAFF]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PROPOSED COMMERCIAL / INDUSTRIAL CONSERVATION GOALS | | | | | | | | | | | | |
|  | WINTER MW | | | | SUMMER MW | | | | ANNUAL GWh | | | |
|  | FPC | Staff | LEAFFSEIA  FCC | DCA | FPC | Staff | LEAF  FSEIA  FCC | DCA | FPC | Staff | LEAF  FSEIA  FCC | DCA |
| 1994 | 0.6 | 0.05 | ---- | ---- | 3 | 0.3 | ---- | ---- | 3 | 2 | ----- | ---- |
| 1995 | 4 | 3 | 23 | 32 | 5 | 3 | 31 | 39 | 9 | 19 | 7 | 103 |
| 1996 | 7 | 7 | 37 | 62 | 9 | 8 | 54 | 74 | 24 | 40 | 27 | 195 |
| 1997 | 12 | 13 | 52 | 101 | 15 | 15 | 80 | 123 | 42 | 71 | 69 | 326 |
| 1998 | 18 | 20 | 69 | 150 | 22 | 24 | 108 | 183 | 68 | 110 | 136 | 485 |
| 1999 | 25 | 29 | 86 | 206 | 30 | 35 | 139 | 252 | 100 | 155 | 234 | 667 |
| 2000 | 33 | 39 | 105 | 268 | 41 | 48 | 172 | 328 | 137 | 207 | 304 | 869 |
| 2001 | 41 | 48 | 123 | 317 | 51 | 61 | 204 | 388 | 173 | 255 | 360 | 1028 |
| 2002 | 47 | 56 | 140 | 370 | 60 | 74 | 236 | 453 | 208 | 299 | 420 | 1200 |
| 2003 | 54 | 64 | 155 | 403 | 68 | 84 | 262 | 493 | 239 | 336 | 457 | 1307 |

**Note: The GWH energy goals for a specific year represent single-year impacts for all installations beginning in 1994 through that year.**

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** FPC's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals should be those goals contained in Exhibit No. 35 from the testimony of Mr. Michael Jacob.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** The Department's proposed numeric conservation goals are presented in Table 4.

Table 4: FPC--Proposed C/I Numeric Conservation Goals

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Gwh** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 103 | 32 | 39 |
| 1996 | 195 | 62 | 74 |
| 1997 | 326 | 101 | 123 |
| 1998 | 485 | 150 | 183 |
| 1999 | 667 | 206 | 252 |
| 2000 | 869 | 268 | 328 |
| 2001 | 1028 | 317 | 388 |
| 2002 | 1200 | 370 | 453 |
| 2003 | 1307 | 403 | 493 |

**DOE:** No Position.

**LEAF/EVANS:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | GWH | MW(W) | MW(S) |
| 1994 |  |  |  |
| 1995 | 7 | 23 | 31 |
| 1996 | 27 | 37 | 54 |
| 1997 | 69 | 52 | 80 |
| 1998 | 136 | 69 | 108 |
| 1999 | 234 | 86 | 139 |
| 2000 | 304 | 105 | 172 |
| 2001 | 360 | 123 | 204 |
| 2002 | 420 | 140 | 236 |
| 2003 | 457 | 155 | 262 |

**FCC:** FPC's goals should be set as proposed by LEAF. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA's proposed commercial/industrial numeric conservation goals have been presented in Table 10.

***Table 10: Florida Power Corporation -- Proposed C/I Numeric Conservation Goals***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 7 | 23 | 31 |
| 1996 | 27 | 37 | 54 |
| 1997 | 69 | 52 | 80 |
| 1998 | 136 | 69 | 108 |
| 1999 | 234 | 86 | 139 |
| 2000 | 304 | 105 | 172 |
| 2001 | 360 | 123 | 204 |
| 2002 | 420 | 140 | 236 |
| 2003 | 457 | 155 | 262 |

**CITY GAS:** No position.

**PEOPLES:** FPC's annual winter and summer kW and kWh conservation goals should include goals for natural gas substitution measures in the commercial/industrial sector as part of the overall goals recommended by Mr. Krutsinger.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** Tallahassee supports FPC's proposed goals reflected in Exhibit 35.

**CEED:** No position.

**STAFF ANALYSIS:** DCA is pursuing numeric DSM goals based on the "best practices" scenario. These goals are unobtainable because "best practices" assumes no administrative, marketing, overhead, equipment, or monitoring costs. Numeric DSM goals based on an adjusted "best practices" basis are being pursued by LEAF, FSEIA, and FCC. No party was able to provide the rate impacts of adopting DSM goals based on "best practices". Staff is opposed to goals based on unobtainable best practices assumptions.

Staff recommends that FPC's numeric demand and energy goals be set at 100% of the total of all commercial/industrial measures that pass the RIM test. See staff analysis of Issue 37.

**ISSUE 39:** Should a percentage of FPC's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

**RECOMMENDATION:** No. However, FPC should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts. This report should be filed with FPC's DSM Plan. [PALECKI, HAFF]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No. The rule pursuant to which this docket was established addresses the setting of overall goals. See Position on Issue 32.

**GULF:** No position.

**TECO:** Did not intervene in FPC's docket.

**DCA:** Yes. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** Yes. Adopt FCC's position.

**FCC:** Fifteen percent of the residential conservation goals of FPC should be reserved for customers with incomes below 125% of the poverty level. Fifteen percent of FPC's planned residential conservation cost recovery charges should be earmarked to provide energy conservation programs for these customers. A statewide low income conservation fund should be created, administered by the Florida Department of Community Affairs' weatherization program. The program would be designed within the same three month time frame as other utility energy conservation programs are designed.

**FlaSEIA:** Yes. Supports FCC's position on this issue.

**CITY GAS:** No position.

**PEOPLES:** FPC's programs designed to implement its residential conservation goals should be available to all customers on a non-discriminatory basis. As a matter of policy, Peoples Gas does not object to FPC making special efforts to inform low-income customers of available programs nor to a small percentage "set-aside" for such customers, so long as such practices are cost-effective.

**WFNG:** Agree with Peoples Gas.

**FIPUG:** No. Income subsidies for low income families require social welfare analyses that are beyond the scope of the Commission's authority and would unnecessarily duplicate the duties of other authorized government agencies.

**CEPA:** No position.

**FECA:** No position

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:**  As stated in Issue 23, staff has recommended that the Commission set overall goals consistent with the Commission's rule. All customers, including low-income customers, should benefit from RIM-based DSM programs. This is because RIM based programs better insure that both participating and non-participating customers benefit from utility sponsored conservation programs. Additional generating is deferred and the rates paid by low-income customers are less than they otherwise would have been. (Tr. 4311)

If the Commission adopts TRC-based goals, staff agrees that low-income customers would be penalized unless they participate in utility conservation programs. Even if they participated, they could pay higher bills unless their savings were sufficient to off-set the increased rates caused by TRC based programs.

Regardless of whether the Commission adopts RIM-based goals or TRC-based goals, staff believes that utilities should be sensitive to the special needs and limitations faced by low income customers. Once overall goals have been established in this docket, utilities must develop conservation programs to achieve the goals. Care should be taken during program development to ensure that low income customers have an equal opportunity to participate in utility conservation programs. In addition, low income customers that do participate should also have the opportunity to realize their fair share of savings from participating in conservation programs. In order to ensure that low income customers are fairly treated, utilities should be required to study and report to the Commission whether a fair percentage of DSM dollars will be made available to low income ratepayers under the utility's DSM portfolio.

Staff also recommends that FPL, FPC, GULF, and TECO be encouraged to participate in any statewide low-income conservation fund administered by DCA.

**GULF's Numeric Goals**

**ISSUE 40:** If numeric goals should be set for each major end-use category within each market segment, what should GULF's goals be?

**RECOMMENDATION:** Overall numeric goals should be set for the residential and commercial/industrial sectors consistent with Rule 25-17.0021, F.A.C. Staff believes setting end-use goals is too much governmental interference and information is too sparse to conclude that goals for solar, renewables, and natural gas substitution will result in large power plant savings that have minimal rate impacts. If numeric goals are set by end-use, the Commission should rely on Exhibit No. 52. [TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** As indicated in the Company's position on Issue 22, Gulf does not believe that the Commission should set specific goals for each major end-use category within each market segment. Furthermore, the information available at this time is insufficient to allow for a reasoned determination of what numeric goals would be reasonably achievable on such a specific basis.

**TECO:** Did not intervene in Gulf's docket.

**DCA:** Goals should be set in residential/commercial totals and for several key market segments where public policy supports: New construction, low income residential, solar/renewables and natural gas substitution. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** No position.

**FCC:** GULF's goals should be consistent with the SRC study's best practices scenario under total resource cost analysis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** No position.

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position as to specific goals.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Staff believes the Commission should set overall goals consistent with its rules. Overall goals will allow GULF the flexibility to respond to changing technological and economic circumstances. DCA witness McDonald stated that it is important that goals be set on an aggregate basis and not by end-use. (Tr. 2649, 2719)

If the Commission decides to set end-use goals, staff recommends using GULF's Exhibit No. 52 to identify residential and commercial/industrial goals by end-use. Staff would recommend using the RIM summary contained in the exhibit. This is consistent with staff's rationale in issues 45 and 46.

**ISSUE 41:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should GULF's goals be?

**RECOMMENDATION:** The Commission should require GULF to develop alternate funding sources such as voluntary Green Pricing where customers contribute to a fund to be used to promote the installation of solar water heating and other renewable measures. GULF should evaluate voluntary Green Pricing in conjunction with the development of DSM programs designed to meet GULF's numeric goals. [TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No. Information regarding reasonably achievable and cost effective demand and energy savings from solar energy and renewable energy sources is currently not sufficient to allow for the establishment of specific goals.

**TECO:** Did not intervene in Gulf's docket.

**DCA:** Yes. The Department supports the numeric solar energy goals proposed by FlaSEIA.

**DOE:** No Position.

**LEAF/EVANS:** Yes. Adopt FSEIA's position.

**FCC:** The Commission should set energy conservation goals for solar and renewable energy sources in order to encourage the diversification, and reduce the price of Florida's residential energy. GULF's goals should be set in accordance with the expert intervenor testimony presented on this issue. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA proposes aggressive solar energy goals, presented in Table 11, for energy, winter demand, and summer demand. FlaSEIA's alternative recommendation is that the Commission select either moderate or base case solar energy goals which have been presented in Tables 12 and 13. FlaSEIA proposes that these goals be applied to the residential class alone.

***Table 11: Gulf Power Company -- Proposed Solar Energy Goals (Aggressive)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 2,378 | 0.8 | 0.2 |
| 1995 | 4,855 | 1.7 | 0.5 |
| 1996 | 7,420 | 2.6 | 0.7 |
| 1997 | 10,075 | 3.5 | 1.0 |
| 1998 | 12,821 | 4.5 | 1.3 |
| 1999 | 15,662 | 5.5 | 1.6 |
| 2000 | 18,600 | 6.5 | 1.9 |
| 2001 | 21,637 | 7.6 | 2.2 |
| 2002 | 24,780 | 8.7 | 2.5 |
| 2003 | 28,027 | 9.8 | 2.8 |

***Table 12: Gulf Power Company -- Proposed Solar Energy Goals (Moderate)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 1,427 | 0.5 | 0.1 |
| 1995 | 2,913 | 1.0 | 0.3 |
| 1996 | 4,452 | 1.6 | 0.4 |
| 1997 | 6,045 | 2.1 | 0.6 |
| 1998 | 7,693 | 2.7 | 0.8 |
| 1999 | 9,397 | 3.3 | 0.9 |
| 2000 | 11,160 | 3.9 | 1.1 |
| 2001 | 12,982 | 4.5 | 1.3 |
| 2002 | 14,868 | 5.2 | 1.5 |
| 2003 | 16,816 | 5.9 | 1.7 |

***Table 13: Gulf Power Company -- Proposed Solar Energy Goals (Base)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 951 | 0.3 | 0.1 |
| 1995 | 1,942 | 0.7 | 0.2 |
| 1996 | 2,968 | 1.0 | 0.3 |
| 1997 | 4,030 | 1.4 | 0.4 |
| 1998 | 5,129 | 1.8 | 0.5 |
| 1999 | 6,265 | 2.2 | 0.6 |
| 2000 | 7,440 | 2.6 | 0.7 |
| 2001 | 8,655 | 3.0 | 0.9 |
| 2002 | 9,912 | 3.5 | 1.0 |
| 2003 | 11,211 | 3.9 | 1.1 |

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Green Pricing is a relatively new concept currently in use in limited jurisdictions. Customers voluntarily choose to donate money on their monthly bills for the utility to engage in the procurement and implementation of renewable technologies. Staff believes that GULF should consider this option during the program development and submittal stage of this docket.

Green Pricing is discussed in more detail in issue 24 for Florida Power and Light as they currently offer a solar water heating program. However, staff recommends similar treatment for GULF as well as the other IOUs to encourage the development of solar and renewable energy resources.

**ISSUE 42:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C., and if so, what should GULF's goals be?

**RECOMMENDATION:** No. [TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No. See Company's position on Issue 40.

**TECO:** Did not intervene in Gulf's docket.

**DCA:** Yes. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** Yes. Adopt DCA's position.

**FCC:** The Commission should set separate goals where it appears that cross-subsidization of utility conservation programs would otherwise result, or where there are strong societal interests in a particular sector having a conservation goal. GULF's goals should be consistent with the SRC study's best practices scenario under total resource cost analysis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** Yes. No position on goals levels.

**CITY GAS:** No position.

**PEOPLES:** Yes. No position as to the levels of the goals.

**WFNG:** Yes. No position as to the levels of the goals.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Although the Commission has the discretion to establish end-use specific goals as discussed in issue 22, separate reporting of these goals is not desirable or consistent with the intent of overall goals established for each utility.

As stated in Issue 40, staff believes the Commission should set overall goals consistent with its rules. Energy savings associated with new construction is derived from the energy efficient building code which is the responsibility of the Department of Community Affairs.

**ISSUE 43:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should GULF's goals be?

**RECOMMENDATION:** No. The Commission should not set goals for GULF for natural gas substitution for electricity. [MILLS, TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No. Gulf's research and investigations have identified no natural gas substitution technologies that would be cost-effective for the Company to pursue under any market scenario. Furthermore, electric utilities should not be compelled to actively promote natural gas technologies. Gulf will continue to recommend natural gas technologies to our customers when appropriate and cost-effective.

**TECO:** Did not intervene in Gulf's docket.

**DCA:** Yes. No position on goals levels.

**DOE:** No position.

**LEAF/EVANS:** Yes. No position on goals levels.

**FCC:** The Commission should set energy conservation goals for natural gas substitutes for electricity in order to encourage the diversification, and reduce the price of Florida's residential energy. GULF's goals should be set in accordance with the expert intervenor testimony presented on this issue. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** No position.

**CITY GAS:** The Commission should set natural gas substitution goals for GULF. City Gas has no position on what those goals should be.

**PEOPLES:** Yes. No position at this time as to the appropriate goal for natural gas substitutes for electricity for Gulf Power Company.

**WFNG:** Yes, there should be goals for natural gas substitution, but no position at this time as to those goals.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not set specific goals for natural gas substitution for electricity. Utilities' analyses indicate a lack of sufficiently accurate information upon which the Commission could base its decision to set specific goals. For future goal evaluations, electric utilities should be directed to gather information sufficient to set goals for use of gas alternatives to electricity end use. See the next issue for further discussion.

Electric utilities should continue to consider measures to reduce electric energy end use without regard to the input fuel used to reduce electricity demand. The Commission has long advocated and recognized the prudency of electric utilities' consideration of natural gas use as a means to mitigating volatility of winter peak demands in Florida. The following is from the Commission's order regarding the investigation into the cold weather emergency occurring in peninsular Florida, December 23-25, 1989:

Utilities are encouraged to continue to develop and implement cost-effective conservation programs approved by the Commission, including those that promote the cost-effective use of natural gas to moderate Florida's dependence on electric heating. FPSC Docket No. 900071-EG, Order No. 22798 at 7 (March 20, 1990)

Witnesses for the electric utilities in this docket supported the use of measures that passed the RIM and the participant tests. Staff believes that if a measure is cost-effective, as defined by the Commission in this docket, whether for gas substitute or any other measure the utility should adopt its use based on its cost-effectiveness. According to FPL's Mr. Sims, "From our standpoint we believe that if a gas measure passes both the RIM and participants' test, that it's cost-effective for all of our customers, then we won't have a concern with that measure being implemented." (Tr. 547) Additionally, FPL's Mr. Hugues followed with, "We would recommend to our customers any measure, regardless of whether it's gas or any other measure, that it's cost effective for both the participants and nonparticipant alike. So it would have to pass both the RIM and the participants test." (Tr. 665) Mr. Jacob, for FPC, supported the RIM and participant tests for measures to be considered cost-effective for conservation. (Tr. 986-987) Mr. Kilgore, for GULF, concluded that RIM had shortcomings then recommended it because RIM does yield the correct conclusions for GULF and its customers. (Tr. 1203) Mr. Currier, of TECO, encouraged the Commission to support RIM and the Participant test as the standard for adopting DSM measures. He called it a "no-loser practice."

**ISSUE 44:** Should the Commission direct GULF to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

**RECOMMENDATION:** No. However, the Commission should require GULF to conduct research and demonstration projects on the eleven gas technologies reviewed in this docket to develop Florida specific information on performance and cost-effectiveness of those technologies for heating, cooling, dehumidification and water heating. GULF should be required to file within six months, in a separate docket, its plans for these research and development projects in accord with the provisions of 25-17.001(5)(f). The Commission should encourage and even consider rewarding GULF if the company cooperatively develops joint projects with gas utilities that produce measurable conservation savings. [MILLS, TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No. Given that Gulf's extensive evaluations have demonstrated no cost-effective natural gas substitution technologies for implementation, such a mandate at this time would be an unnecessary burden on the Company's limited resources with no corresponding benefit resulting.

**TECO:** Did not intervene in Gulf's docket.

**DCA:** No position.

**DOE:** No position.

**LEAF/EVANS:** Yes.

**FCC:** Yes, the Commission should direct GULF to implement the natural gas pilot programs proposed by the natural gas companies.

**FlaSEIA:** No position.

**CITY GAS:** Yes.

**PEOPLES:** Market pilot programs involving cost-effective commercial/industrial natural gas technologies can represent measures by which GULF can implement electric conservation through natural gas substitutes for electricity. Any such measures should be undertaken within the context of an overall plan to achieve GULF's natural gas DSM goals established by the Commission.

**WFNG:** Yes, as is reflected in Mr. McIntyre's testimony.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The Commission should not order FPL to conduct joint utility pilot programs with any gas utilities, because to order cooperation will not be productive. During this docket, City Gas and FPL attempted to negotiate a cooperative gas pilot project. (Tr. 3174) They have been unable to reach an agreement on the project. FPL and City Gas have an unending dispute over appropriate inputs to the cost-effectiveness tests. (Tr. 3174-75) FPL is unsure of current data available on gas measures, and wants actual field data. (Tr. 669) FPL has agreed with the concept of demonstration projects; it raised objections as to how such program were to be conducted. While recognizing that it is the input values that are in dispute, FPL insisted on prescreening the demonstration measures prior to implementation. (Tr. 4472-73) City Gas agrees that it is a question of input values, but that FPL's prescreening is an attempt to prejudge the demonstration project. (Tr. 4476)

Staff is not finding fault or judging the merits of the above dispute. The information is provided to demonstrate the difficulties of a demonstration project based upon mandated cooperation. Staff is concerned that the Commission may be forced to referee every detail of each project for all the utilities if the Commission orders the electric utilities to do demonstration gas projects with gas utilities. The ill will from a forced marriage between utilities and the inevitable and costly litigation, resulting in data that will possibly remain in dispute is not beneficial for utilities or customers. Staff favors any cooperative efforts or required independent projects with the data used later to develop DSM programs for the Commission's approval.

The need for accurate data is shown by the inconsistency of electric utilities' calculations of cost-effectiveness of gas technologies. The results of their evaluations of the eleven gas technologies in this docket varied immensely due to electric utilities' assumptions for input data. (Tr. 1563-64, 2329, 3653, 3665, 3668, 3675, 4188, 4377) Mr. German, witness for PGS, cited examples of unreasonable assumptions and inconsistences in the electric utilities' evaluations of the eleven gas technologies. (Tr. 2327-32) GULF's assumptions for the eleven gas technologies for the base year totaled 577 pages.

Not considering cogeneration, which might be considered a demand side alternative, the conclusions of all four electric utilities were that only one gas technology, desiccant dehumidifying, passed both the RIM and participant test. (Tr. 2329) (Ex. 6, 36, 51, 156) FPL's evaluation showed that nine of the eleven technologies passed the electric RIM test. (Ex. 6) FPC's evaluation showed that only one passed the RIM test, but two others have ratios of .99 and 91. The failure of most of the technologies to pass FPC's RIM test probably was caused by the loading of an incentive amount to the participant test to bring it up to 1.0 benefit/cost ratio. (Ex. 36) GULF's evaluation had no measure passing any of the tests. (Ex. 51) TECO's evaluation showed that eight of eleven passed the RIM test. (Tr. 156)

The nearly total failure of the gas technologies to pass the electric utilities' calculation of the participant test is difficult to accept. Staff does not believe that approximately 600,000 existing Florida gas customers have made a mistake in their economic decision, nor that the manufacturers of gas technologies would commit resources to develop and market new gas technologies if they are all destined to be market failures. (Tr. 3668, 3673, 3675)

The unusually diverse results of electric utilities' evaluations appear to be based on input assumptions not grounded in Florida specific applications. The Commission should, therefore, require electric utilities to develop Florida specific data through research and demonstration projects on gas technologies. (Tr. 669) Rule 25-17.001(5)(f), F.A.C., assumes aggressive research and development projects are "... an ongoing part of the practice of every well managed electric utility's programs ...". The data gathered would be for the performance and cost-effectiveness of gas technologies for heating, cooling, dehumidification and water heating. (Tr. 1563-64, 2327-32, 3174-75, 3653, 3653, 3665, 3668, 3675, 4188, 4377) (Ex. 6, 36, 51, 156)

For a comparison of the eleven gas technologies results refer to the table on the next page. Note the range of values in the calculations. Those technologies passing a test for any particular utility are highlighted with double outlines. Those above 0.84 on the RIM test are shaded.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| GAS TECHNOLOGIES | | | | | | | | | | | | |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Participant Test | FPC | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | **1.77** | 1.00 | 1.00 | **2.12** | 1.00 |
|  | FP&L | .22 | .31 | .54 | .46 | .42 | .28 | .41 | .53 | .21 | .45 | .49 |
|  | GULF | (.01) | .15 | .42 | .35 | .18 | .19 | .07 | .57 | .17 | .37 | .22 |
|  | TECO | (39,267) | (20,024) | (378) | (5,923) | (7,039) | (118) | - a - | (47) | (1,169) | (64,240) | (17,043) |
| RIM  Test | FPC | .22 | .35 | .62 | .48 | .68 | .99 | **1.06** | .52 | .15 | .91 | .58 |
|  | FP&L | **1.01** | **1.02** | **1.03** | **1.03** | **1.04** | **1.03** | **1.01** | .84 | **1.02** | **1.00** | .91 |
|  | GULF | (.02) | .29 | .31 | .45 | .57 | .58 | .39 | .66 | .33 | .69 | .57 |
|  | TECO | **1.00** | **1.00** | **1.00** | .80 | **1.00** | **1.10** | - a - | .90 | **1.00** | **1.20** | **1.00** |
| TRC  Test | FPC | .22 | .35 | .62 | .48 | .68 | **1.00** | **1.88** | .50 | .15 | **1.93** | .58 |
|  | FP&L | .29 | .48 | .67 | .72 | .75 | .27 | .76 | .59 | .19 | .72 | .78 |
|  | GULF | (.00) | .10 | .31 | .23 | .15 | .12 | .06 | .38 | .11 | .30 | .18 |
|  | TECO | .10 | .20 | .30 | .10 | .40 | .50 | - a - | .40 | .20 | .30 | .40 |

1) Absorption Commercial Single Effect 5) Gas Engine Driven Water Chiller 9) New Installation Residential Cogeneration

2) Absorption Commercial Double Effect 6) Double Integrated Appliance 10) Commercial/Industrial Cogeneration

3) Residential Gas Heat Pump and Hot Water 7) Desiccant Dehumidifier 11) Gas Engine Driven Centrifugal Chiller with

4) Gas Engine Driven Air Conditioner 8) New Installation Water Heater Heat Recovery

a) TECO - Not a viable DSM measure. Summer peak of measure is higher than electric baseline technology.

Double-lined cells with bold data passed the test without the addition of incentives.

Shadowed cells nearly passed.

**Table developed by commission staff from exhibits 6, 36, 51 and 156.**

**ISSUE 45:** What should be GULF's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** GULF's residential conservation goals should be set at the levels identified in the staff column of the following table. [TAYLOR]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PROPOSED RESIDENTIAL CONSERVATION GOALS | | | | | | | | | | | | |
|  | WINTER KW | | | | SUMMER KW | | | | ANNUAL GWH | | | |
|  | GULF | Staff | LEAFFSEIA  FCC | DCA | GULF | Staff | LEAF  FSEIA  FCC | DCA | GULF | Staff | LEAF  FSEIA  FCC | DCA |
| 1994 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1995 | 0 | 0 | 1 | 3 | 1 | 1 | 1 | 5 | 1 | 1 | 6 | 22 |
| 1996 | 0 | 0 | 1 | 6 | 1 | 2 | 2 | 10 | 2 | 3 | 20 | 42 |
| 1997 | 41 | 59 | 36 | 11 | 26 | 37 | 27 | 17 | 10 | 15 | 52 | 73 |
| 1998 | 82 | 117 | 71 | 16 | 51 | 72 | 51 | 27 | 31 | 44 | 107 | 112 |
| 1999 | 85 | 121 | 74 | 21 | 60 | 85 | 60 | 34 | 59 | 84 | 170 | 143 |
| 2000 | 87 | 125 | 76 | 24 | 72 | 103 | 73 | 40 | 89 | 128 | 199 | 166 |
| 2001 | 90 | 129 | 79 | 28 | 83 | 118 | 83 | 46 | 123 | 176 | 229 | 192 |
| 2002 | 93 | 133 | 81 | 32 | 86 | 122 | 90 | 52 | 160 | 228 | 260 | 218 |
| 2003 | 96 | 137 | 84 | 35 | 88 | 126 | 97 | 57 | 198 | 283 | 286 | 240 |

**Note: The GWH energy goals for a specific year represent single-year impacts for all installations beginning in 1994 through that year.**

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** The following table contains the overall goals Gulf deems reasonably achievable, given the data available at the time of the filing, for the combined residential and commercial/industrial classes during the period:

| **Year** | **Summer Peak KW**  **Reduction at**  **Generator** | **Winter Peak KW**  **Reduction at**  **Generator** | **Annual MWH**  **Reduction at**  **Generator** |
| --- | --- | --- | --- |
| 1994 | 90 | 52 | 60 |
| 1995 | 9,846 | 7,348 | 192 |
| 1996 | 10,550 | 7,394 | 724 |
| 1997 | 35,059 | 48,230 | 7,339 |
| 1998 | 59,581 | 89,067 | 19,657 |
| 1999 | 69,843 | 91,986 | 27,872 |
| 2000 | 83,704 | 95,026 | 32,425 |
| 2001 | 95,877 | 98,072 | 37,332 |
| 2002 | 99,722 | 100,859 | 41,126 |
| 2003 | 103,506 | 103,648 | 43,919 |

**TECO:** Did not intervene in Gulf's docket.

**DCA:** The Department's proposed numeric conservation goals are presented in Table 5.

Table 5: Gulf--Proposed Residential Numeric Conservation Goals

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Gwh** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 22 | 3 | 5 |
| 1996 | 42 | 6 | 10 |
| 1997 | 73 | 11 | 17 |
| 1998 | 112 | 16 | 27 |
| 1999 | 143 | 21 | 34 |
| 2000 | 166 | 24 | 40 |
| 2001 | 192 | 28 | 46 |
| 2002 | 218 | 32 | 52 |
| 2003 | 240 | 35 | 57 |

**DOE:** No position.

**LEAF/EVANS:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | GWH | MW(W) | MW(S) |
| 1994 |  |  |  |
| 1995 | 6 | 1 | 1 |
| 1996 | 20 | 1 | 2 |
| 1997 | 52 | 36 | 27 |
| 1998 | 107 | 71 | 51 |
| 1999 | 170 | 74 | 60 |
| 2000 | 199 | 76 | 73 |
| 2001 | 229 | 79 | 83 |
| 2002 | 260 | 81 | 90 |
| 2003 | 286 | 84 | 97 |

**FCC:** GULF's goals should be as proposed by LEAF. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA's proposed residential numeric conservation goals have been presented in Table 14.

***Table 14: Gulf Power Company -- Proposed Residential Numeric Conservation Goals***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 6 | 1 | 1 |
| 1996 | 20 | 1 | 2 |
| 1997 | 52 | 36 | 27 |
| 1998 | 107 | 71 | 51 |
| 1999 | 170 | 74 | 60 |
| 2000 | 199 | 76 | 73 |
| 2001 | 229 | 79 | 83 |
| 2002 | 260 | 81 | 90 |
| 2003 | 286 | 84 | 97 |

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** GULF in its testimony did not differentiate between residential and commercial/industrial numeric goals as they were required to do in the procedural orders. Rather, GULF lumped its recommended goals under one heading. Staff has been able to allocate GULF's numeric goals under separate headings of residential and commercial/industrial.

The numbers for Staff are different from the intervenors due to our allocation between residential and commercial/industrial. As we noted in Staff's analysis to Issue 8, GULF did not include any of its existing conservation programs in the CEGRR filing or in the final proposed numeric goals. We agree with LEAF's characterization in its brief at page 68 where LEAF stated at the bottom of the page "Moving from the deficient to ridiculous, GULF reduced its meager RIM-based potential by 30%". GULF's own testimony indicated that its two major programs (GULF Express program and GULF's audit program) had exceeded original engineering estimates. (Tr. 1256, lines 4-12 & T-1256, Lines 13-T-1257, Line 11)

Also, Staff and Commissioner Clark requested that GULF's witness Mr. Kilgore provide, as late filed exhibit Number 54, an analysis of the effect of bundling of four direct load control measures into one measure(air conditioning, water heating, swimming pool pumps & space heating). (Tr. 1296-1299) GULF in its late filed exhibit 54 did not provide an analysis of the effect of bundling those four direct load control measures but indicated that it would investigate the matter further. It seems to Staff that GULF's argument that it is a summer peaking utility and therefore would receive little or no economic benefit from deferring water heating and space heating in the winter is specious. During the summer the direct load control of water heating, air conditioning and pool pumps should provide an economic benefit to a summer peaking utility. GULF did say in its late filed exhibit 54 that "The bundling of air conditioning and pool pumps appears to be cost effective under certain conditions at the $349.00/kw value". The $349.00/kw value mentioned is the cost of the avoided unit used by GULF in this docket.

Correcting the deficiencies mentioned above, and in Issues 7, 8, and 9 would probably require another hearing. However, after reviewing the new allocation, as well as the numeric goals proposed by the intervenors, we would recommend a 100% RIM goal. This seems to be consistent with the other IOUs on a percentage of system load basis as shown in the executive summary and is consistent with other staff analyses in these dockets.

**ISSUE 46:** What should be GULF's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** GULF's commercial/industrial conservation goals should be set at the levels identified in the staff column of the following table. [TAYLOR]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PROPOSED COMMERCIAL/INDUSTRIAL CONSERVATION GOALS | | | | | | | | | | | | |
|  | WINTER KW | | | | SUMMER KW | | | | ANNUAL GWH | | | |
|  | GULF | Staff | LEAF  FSEIA  FCC | DCA | GULF | Staff | LEAF  FSEIA  FCC | DCA | GULF | Staff | LEAF  FSEIA  FCC | DCA |
| 1994 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1995 | 7 | 10 | 12 | 2 | 9 | 13 | 23 | 7 | (0) | (1) | 3 | 24 |
| 1996 | 7 | 10 | 15 | 4 | 9 | 13 | 28 | 14 | (1) | (2) | 13 | 45 |
| 1997 | 7 | 10 | 18 | 8 | 9 | 13 | 34 | 23 | (2) | (3) | 33 | 77 |
| 1998 | 7 | 10 | 21 | 12 | 9 | 13 | 40 | 36 | (3) | (4) | 67 | 119 |
| 1999 | 7 | 11 | 24 | 15 | 10 | 15 | 47 | 46 | (3) | (4) | 108 | 152 |
| 2000 | 8 | 11 | 28 | 17 | 12 | 17 | 55 | 53 | (1) | (2) | 125 | 177 |
| 2001 | 8 | 11 | 32 | 20 | 13 | 19 | 63 | 62 | 2 | 3 | 145 | 204 |
| 2002 | 8 | 11 | 35 | 23 | 14 | 20 | 69 | 70 | 7 | 10 | 164 | 231 |
| 2003 | 8 | 11 | 39 | 25 | 15 | 22 | 76 | 77 | 13 | 18 | 181 | 255 |

**Note: The GWH energy goals for a specific year represent single-year impacts for all installations beginning in 1994 through that year.**

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** See Company's position on Issue 45.

**TECO:** Did not intervene in Gulf's docket.

**DCA:** The Department's proposed numeric conservation goals are presented in Table 6.

Table 6: Gulf--Proposed C/I Numeric Conservation Goals

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Gwh** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 24 | 2 | 7 |
| 1996 | 45 | 4 | 14 |
| 1997 | 77 | 8 | 23 |
| 1998 | 119 | 12 | 36 |
| 1999 | 152 | 15 | 46 |
| 2000 | 177 | 17 | 53 |
| 2001 | 204 | 20 | 62 |
| 2002 | 231 | 23 | 70 |
| 2003 | 255 | 25 | 77 |

**DOE:** No Position.

**LEAF/EVANS:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | GWH | MW(W) | MW(S) |
| 1994 |  |  |  |
| 1995 | 3 | 12 | 23 |
| 1996 | 13 | 15 | 28 |
| 1997 | 33 | 18 | 34 |
| 1998 | 67 | 21 | 40 |
| 1999 | 108 | 24 | 47 |
| 2000 | 125 | 28 | 55 |
| 2001 | 145 | 32 | 63 |
| 2002 | 164 | 35 | 69 |
| 2003 | 181 | 39 | 76 |

**FCC:** GULF's goals should be as proposed by LEAF. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA's proposed commerical/industrial numeric conservation goals have been presented in Table 15.

***Table 15: Gulf Power Company -- Proposed C/I Numeric Conservation Goals***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 3 | 12 | 23 |
| 1996 | 13 | 15 | 28 |
| 1997 | 33 | 18 | 34 |
| 1998 | 67 | 21 | 40 |
| 1999 | 108 | 24 | 47 |
| 2000 | 125 | 28 | 55 |
| 2001 | 145 | 32 | 63 |
| 2002 | 164 | 35 | 69 |
| 2003 | 181 | 39 | 76 |

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** GULF in its testimony did not differentiate between residential and commercial/industrial numeric goals as they were required to do in the procedural orders. Rather, GULF lumped its recommended goals under one heading. Staff has been able to allocate GULF's numeric goals under separate headings of residential and commercial/industrial which can be found in the included tables for Issues 45 and 46 under the column entitled GULF. Our discussion in Issue 45 regarding the problems that we had with GULF's filing would also apply to Issue 46.

**ISSUE 47:** Should a percentage of GULF's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

**RECOMMENDATION:** No. However, GULF should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts. This report should be filed with GULF's DSM Plan. [PALECKI, TAYLOR]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No. Not only would such a practice violate the statutory prohibition against discriminatory treatment within rate classes, it would be administratively difficult, and to some extent beyond the Commission's jurisdiction, to establish and administer such a reserve.

**TECO:** Did not intervene in Gulf's docket.

**DCA:** Yes. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** Yes. Adopt FCC's position.

**FCC:** Fifteen percent of the residential conservation goals of GULF should be reserved for customers with incomes below 125% of the poverty level. Fifteen percent of GULF's planned residential conservation cost recovery charges should be earmarked to provide energy conservation programs for these customers. A statewide low income conservation fund should be created, administered by the Florida Department of Community Affairs' weatherization program. The program would be designed within the same three month time frame as other utility energy conservation programs are designed.

**FlaSEIA:** Yes. Supports FCC's position on this issue.

**CITY GAS:** No position.

**PEOPLES:** GULF's programs designed to implement its residential conservation goals should be available to all customers on a non-discriminatory basis. As a matter of policy, Peoples Gas does not object to GULF making special efforts to inform low-income customers of available programs nor to a small percentage "set-aside" for such customers, so long as such practices are cost-effective.

**WFNG:** Agree with Peoples Gas.

**FIPUG:** No. Income subsidies for low income families require social welfare analyses that are beyond the scope of the Commission's authority and would unnecessarily duplicate the duties of other authorized government agencies.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** As stated in Issue 23, staff has recommended that the Commission set overall goals consistent with the Commission's rule. All customers, including low-income customers, should benefit from RIM-based DSM programs. This is because RIM based programs better insure that both participating and non-participating customers benefit from utility sponsored conservation programs. Additional generating is deferred and the rates paid by low-income customers are less than they otherwise would have been. (Tr. 4311)

If the Commission adopts TRC-based goals, staff agrees that low-income customers would be penalized unless they participate in utility conservation programs. Even if they participated, they could pay higher bills unless their savings were sufficient to off-set the increased rates caused by TRC based programs.

Regardless of whether the Commission adopts RIM-based goals or TRC-based goals, staff believes that utilities should be sensitive to the special needs and limitations faced by low income customers. Once overall goals have been established in this docket, utilities must develop conservation programs to achieve the goals. Care should be taken during program development to ensure that low income customers have an equal opportunity to participate in utility conservation programs. In addition, low income customers that do participate should also have the opportunity to realize their fair share of savings from participating in conservation programs. In order to ensure that low income customers are fairly treated, utilities should be required to study and report to the Commission whether a fair percentage of DSM dollars will be made available to low income ratepayers under the utility's DSM portfolio.

Staff also recommends that FPL, FPC, GULF, and TECO be encouraged to participate in any statewide low-income conservation fund administered by DCA.

**TECO's Numeric Goals**

**ISSUE 48:** If numeric goals should be set for each major end-use category within each market segment, what should TECO's goals be?

**RECOMMENDATION:** Overall numeric goals should be set for the residential and commercial/industrial sectors consistent with Rule 25-17.0021, F.A.C. See Issues 53 and 54 for staff's recommendation of TECO's goals. Staff believes setting end-use goals is too much governmental interference and information is too sparse to conclude that goals for solar, renewables, and natural gas substitution will result in large power plant savings that have minimal rate impacts. If numeric goals are set by end-use, the Commission should rely on Exhibit No. 63. [FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** Tampa Electric firmly believes the Commission should set overall goals for residential and for commercial/industrial only. As is discussed under Point II of the Argument portion of Tampa Electric's Brief and Post-hearing Statement, a number of witnesses testified that goals should not be set for each major end-use category within each market segment, but instead, should be prescribed on an aggregate basis. This gives flexibility to the utilities and will better enable them to meet the goals prescribed by the Commission. The appropriate aggregate goals for Tampa Electric are described in detail in Point I of Tampa Electric's Post-Hearing Statement and Brief.

**DCA:** Goals should be set in residential/commercial totals and for several key market segments where public policy supports: New construction, low income residential, solar/renewables and natural gas substitution. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** No position.

**FCC:** TECO's goals should be consistent with the SRC study's best practices scenario under total resource cost analysis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** No position.

**CITY GAS:** No position.

**PEOPLES:** The Commission should recognize that natural gas substitutes for electricity are not an end use such as those identified in Rule 25-17.0021(3)(a-d)&(i-q). Rather, natural gas substitutes comprise a range of end use energy options. TECO's Gas DSM goals, with respect to customers served by both TECO and Peoples, should be a cumulative total of 25 MW of summer/winter peak electric demand reduction and associated electric energy reductions.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No Position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Staff believes the Commission should set overall goals consistent with its rules. Overall goals will allow TECO the flexibility to respond to changing technological and economic circumstances. DCA witness McDonald stated that it is important that goals be set on an aggregate basis and not by end-use. (Tr. 2649, 2719).

If the Commission decides to set end-use goals, staff recommends using TECO witness Bryant's Late Filed Exhibit No. 63 to identify residential and commercial/industrial goals by end-use. Staff would recommend using the "Gross Residential RIM Savings" and the "Gross Commercial RIM Savings" contained in the exhibit. This is consistent with staff's rationale in issues 53 and 54.

**ISSUE 49:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1995-2004 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should TECO's goals be?

**RECOMMENDATION:** The Commission should require TECO to develop alternate funding sources such as voluntary Green Pricing where customers contribute to a fund to be used to promote the installation of solar water heating and other renewable measures. TECO should evaluate voluntary Green Pricing in conjunction with the development of DSM programs designed to meet TECO's numeric goals. [FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** As is discussed in Point II of the Argument portion of Tampa Electric's Brief and Post-Hearing Statement, the Commission should limit itself to establishing goals for residential and for commercial/industrial only. No specific end-uses should be determined and all goals should be cost-effective. To do otherwise would limit the flexibility of the electric utilities to meet their Commission prescribed goals. Detailed, hands-on micromanagement in the goal setting process would erroneously assign to utilities a central planning function with regard to conservation investments and would seriously exacerbate the current potential for uneconomic competition in the electric industry.

**DCA:** Yes. The Department supports the numeric solar energy goals proposed by FlaSEIA.

**DOE:** No Position.

**LEAF/EVANS:**  Yes. Adopt FSEIA's position.

**FCC:** The Commission should set energy conservation goals for solar and renewable energy sources in order to encourage the diversification, and reduce the price of Florida's residential energy. TECO's goals should be set in accordance with the expert intervenor testimony presented on this issue. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA proposes aggressive solar energy goals, presented in Table 16, for energy, winter demand, and summer demand. FlaSEIA's alternative recommendation is that the Commission select either moderate or base case solar energy goals which have been presented in Tables 17 and 18. Summer and winter demand goals have been estimated by taking the number of proposed installations under each scenario presented in Ex. 88, Schedule 4, and multiplying by 0.7 kW (winter) and 0.2 kW (summer) demand reductions represented in Ex. 88, Schedule 1. (FlaSEIA proposes that these goals be applied to the residential class alone.

***Table 16: Tampa Electric Company -- Proposed Solar Energy Goals (Aggressive)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 3,528 | 1.2 | 0.4 |
| 1995 | 7,233 | 2.5 | 0.7 |
| 1996 | 11,131 | 3.9 | 1.1 |
| 1997 | 15,205 | 5.3 | 1.5 |
| 1998 | 19,453 | 6.8 | 1.9 |
| 1999 | 23,882 | 8.4 | 2.4 |
| 2000 | 28,499 | 10.0 | 2.8 |
| 2001 | 33,313 | 11.7 | 3.3 |
| 2002 | 38,332 | 13.4 | 3.8 |
| 2003 | 43,564 | 15.2 | 4.4 |

***Table 17: Tampa Electric Company -- Proposed Solar Energy Goals (Moderate)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 2,117 | 0.7 | 0.2 |
| 1995 | 4,340 | 1.5 | 0.4 |
| 1996 | 6,679 | 2.3 | 0.7 |
| 1997 | 9,123 | 3.2 | 0.9 |
| 1998 | 11,672 | 4.1 | 1.2 |
| 1999 | 14,329 | 5.0 | 1.4 |
| 2000 | 17,099 | 6.0 | 1.7 |
| 2001 | 19,988 | 7.0 | 2.0 |
| 2002 | 22,999 | 8.0 | 2.3 |
| 2003 | 26,139 | 9.1 | 2.6 |

***Table 18: Tampa Electric Company -- Proposed Solar Energy Goals (Base)***

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **MWh** | **MW(W)** | **MW(S)** |
| 1994 | 1,411 | 0.5 | 0.1 |
| 1995 | 2,893 | 1.0 | 0.3 |
| 1996 | 4,452 | 1.6 | 0.4 |
| 1997 | 6,082 | 2.1 | 0.6 |
| 1998 | 7,781 | 2.7 | 0.8 |
| 1999 | 9,553 | 3.3 | 1.0 |
| 2000 | 11,400 | 4.0 | 1.1 |
| 2001 | 13,325 | 4.7 | 1.3 |
| 2002 | 15,333 | 5.4 | 1.5 |
| 2003 | 17,426 | 6.1 | 1.7 |

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Green Pricing is a relatively new concept currently in use in limited jurisdictions. Customers voluntarily choose to donate money on their monthly bills for the utility to engage in the procurement and implementation of renewable technologies. Staff believes that TECO should consider this option during the program development and submittal stage of this docket.

Green Pricing is discussed in more detail in issue 24 for Florida Power and Light as they currently offer a solar water heating program. However, staff recommends similar treatment for TECO as well as the other IOUs to encourage the development of solar and renewable energy resources.

**ISSUE 50:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C., and if so, what should TECO's goals be?

**RECOMMENDATION:** No. [FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** As is discussed in detail in Point II of the Argument portion of Tampa Electric's Brief and Post-Hearing Statement, the Commission should limit itself to establishing goals for residential and for commercial/industrial only. No specific end-uses should be determined and all goals should be cost-effective. To do otherwise would limit the flexibility of the electric utilities to meet their Commission prescribed goals. Detailed, hands-on micromanagement in the goal setting process would erroneously assign to utilities a central planning function with regard to conservation investments and would seriously exacerbate the current potential for uneconomic competition in the electric industry.

**DCA:** Yes. See answer to Issue 23.

**DOE:** No position.

**LEAF/EVANS:** Yes. Adopt DCA's position.

**FCC:** The Commission should set separate goals where it appears that cross-subsidization of utility conservation programs would otherwise result, or where there are strong societal interests in a particular sector having a conservation goal. TECO's goals should be consistent with the SRC study's best practices scenario under total resource cost analysis. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** Yes. No position on goals levels.

**CITY GAS:** No position.

**PEOPLES:** Yes. No position as to specific goal levels.

**WFNG:** Yes. No position as to specific goal levels.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Although the Commission has the discretion to establish end-use specific goals as discussed in issue 22, separate reporting of these goals is not desirable or consistent with the intent of overall goals established for each utility.

As stated in Issue 48, staff believes the Commission should set overall goals consistent with its rules. Energy savings associated with new construction is derived from the energy efficient building code which is the responsibility of the Department of Community Affairs. (Tr. 2994)

**ISSUE 51:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1995-2004 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should TECO's goals be?

**RECOMMENDATION:** No. The Commission should not set goals for TECO for natural gas substitution for electricity. [MILLS, FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** Definitely not. There are strong policy arguments against the Commission attempting to have one Commission regulated industry subsidizing the marketing and expansion efforts of a competing Commission regulated electric utility. Such an effort would distort the free market system and erroneously tip the balance of competition. Aside from policy reasons, the record in this case fails to demonstrate that any such DSM fuel substitution measures would be cost-effective or otherwise appropriate. This issue is discussed in detail in Point III of the Argument portion of Tampa Electric's Brief and Post-Hearing Statement.

**DCA:** Yes. No position on goals levels.

**DOE:** No Position.

**LEAF/EVANS:** Yes. No position on goals levels.

**FCC:** The Commission should set energy conservation goals for natural gas substitutes for electricity in order to encourage the diversification, and reduce the price of Florida's residential energy. TECO's goals should be set in accordance with the expert intervenor testimony presented on this issue. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** No position.

**CITY GAS:** The Commission should set natural gas substitution goals for TECO. City Gas has no position on what those goals should be.

**PEOPLES:** Yes. The Commission should recognize that natural gas substitutes for electricity are not an end use such as those identified in Rule 25-17.0021(3)(a-d)&(i-q). Rather, natural gas substitutes comprise a range of end use energy options. TECO's Gas DSM goals, with respect to customers served by both TECO and Peoples, should be a cumulative total of 25 MW of summer/winter peak electric demand reduction and associated electric energy reductions.

**WFNG:** Yes. No position as to specific goal levels.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:**  The Commission should not set specific goals for natural gas substitution for electricity. Utilities' analyses indicate a lack of sufficiently accurate information upon which the Commission could base its decision to set specific goals. For future goal evaluations, electric utilities should be directed to gather information sufficient to set goals for use of gas alternatives to electricity end use. See the next issue for further discussion.

Electric utilities should continue to consider measures to reduce electric energy end use without regard to the input fuel used to reduce electricity demand. The Commission has long advocated and recognized the prudency of electric utilities' consideration of natural gas use as a means to mitigating volatility of winter peak demands in Florida. The following is from the Commission's order regarding the investigation into the cold weather emergency occurring in peninsular Florida, December 23-25, 1989:

Utilities are encouraged to continue to develop and implement cost-effective conservation programs approved by the Commission, including those that promote the cost-effective use of natural gas to moderate Florida's dependence on electric heating. FPSC Docket No. 900071-EG, Order No. 22798 at 7 (March 20, 1990)

Witnesses for the electric utilities in this docket supported the use of measures that passed the RIM and the participant tests. Staff believes that if a measure is cost-effective, as defined by the Commission in this docket, whether for gas substitute or any other measure the utility should adopt its use based on its cost-effectiveness. According to FPL's Mr. Sims, "From our standpoint we believe that if a gas measure passes both the RIM and participants' test, that it's cost-effective for all of our customers, then we won't have a concern with that measure being implemented." (Tr. 547) Additionally, FPL's Mr. Hugues followed with, "We would recommend to our customers any measure, regardless of whether it's gas or any other measure, that it's cost effective for both the participants and nonparticipant alike. So it would have to pass both the RIM and the participants test." (Tr. 665) Mr. Jacob, for FPC, supported the RIM and participant tests for measures to be considered cost-effective for conservation. (Tr. 986-987) Mr. Kilgore, for GULF, concluded that RIM had shortcomings then recommended it because RIM does yield the correct conclusions for GULF and its customers. (Tr. 1203) Mr. Currier, of TECO, encouraged the Commission to support RIM and the Participant test as the standard for adopting DSM measures. He called it a "no-loser practice."

**ISSUE 52:**  Should the Commission direct TECO to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

**RECOMMENDATION:**  No. However, the Commission should require TECO to conduct research and demonstration projects on the eleven gas technologies reviewed in this docket to develop Florida specific information on performance and cost-effectiveness of those technologies for heating, cooling, dehumidification and water heating. TECO should be required to file within six months, in a separate docket, its plans for these research and development projects in accord with the provisions of 25-17.001(5)(f). The Commission should encourage and even consider rewarding TECO if the company cooperatively develops joint projects with gas utilities that produce measurable conservation savings. [MILLS, FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position

**FPC:** No position.

**GULF:** No position.

**TECO:** No, for many of the same reasons addressed in Tampa Electric's response to Issue 51. If a natural gas distribution company believes certain measures are cost-effective for their ratepayers, there is no reason to have a R&D program. The natural companies ought to be implementing those programs on their own. If these measures are defined as being already cost-effective, there is no reason to perform R&D to determine whether they are. This issue is discussed in detail in Point II of the Argument portion of Tampa Electric's Brief and Post-Hearing Statement.

**DCA:** No position.

**DOE:** No Position.

**LEAF/EVANS:** Yes.

**FCC:** Yes, the Commission should direct TECO to implement the natural gas pilot programs proposed by the natural gas companies.

**FlaSEIA:** No position.

**CITY GAS:** Yes.

**PEOPLES:** Market pilot programs involving cost-effective commercial/industrial natural gas technologies can represent measures by which TECO can implement electric conservation through natural gas substitutes for electricity. Any such measures should be undertaken within the context of an overall plan to achieve the natural gas DSM goals for TECO set forth in Mr. Krutsinger's testimony.

**WFNG:** Yes.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:**  The Commission should not order FPL to conduct joint utility pilot programs with any gas utilities, because to order cooperation will not be productive. During this docket, City Gas and FPL attempted to negotiate a cooperative gas pilot project. (Tr. 3174) They have been unable to reach an agreement on the project. FPL and City Gas have an unending dispute over appropriate inputs to the cost-effectiveness tests. (Tr. 3174-75) FPL is unsure of current data available on gas measures, and wants actual field data. (Tr. 669) FPL has agreed with the concept of demonstration projects; it raised objections as to how such program were to be conducted. While recognizing that it is the input values that are in dispute, FPL insisted on prescreening the demonstration measures prior to implementation. (Tr. 4472-73) City Gas agrees that it is a question of input values, but that FPL's prescreening is an attempt to prejudge the demonstration project. (Tr. 4476)

Staff is not finding fault or judging the merits of the above dispute. The information is provided to demonstrate the difficulties of a demonstration project based upon mandated cooperation. Staff is concerned that the Commission may be forced to referee every detail of each project for all the utilities if the Commission orders the electric utilities to do demonstration gas projects with gas utilities. The ill will from a forced marriage between utilities and the inevitable and costly litigation, resulting in data that will possibly remain in dispute is not beneficial for utilities or customers. Staff favors any cooperative efforts or required independent projects with the data used later to develop DSM programs for the Commission's approval.

The need for accurate data is shown by the inconsistency of electric utilities' calculations of cost-effectiveness of gas technologies. The results of their evaluations of the eleven gas technologies in this docket varied immensely due to electric utilities' assumptions for input data. (Tr. 1563-64, 2329, 3653, 3665, 3668, 3675, 4188, 4377) Mr. German, witness for PGS, cited examples of unreasonable assumptions and inconsistences in the electric utilities' evaluations of the eleven gas technologies. (Tr. 2327-32) GULF's assumptions for the eleven gas technologies for the base year totaled 577 pages.

Not considering cogeneration, which might be considered a demand side alternative, the conclusions of all four electric utilities were that only one gas technology, desiccant dehumidifying, passed both the RIM and participant test. (Tr. 2329) (Ex. 6, 36, 51, 156) FPL's evaluation showed that nine of the eleven technologies passed the electric RIM test. (Ex. 6) FPC's evaluation showed that only one passed the RIM test, but two others have ratios of .99 and 91. The failure of most of the technologies to pass FPC's RIM test probably was caused by the loading of an incentive amount to the participant test to bring it up to 1.0 benefit/cost ratio. (Ex. 36) GULF's evaluation had no measure passing any of the tests. (Ex. 51) TECO's evaluation showed that eight of eleven passed the RIM test. (Tr. 156)

The nearly total failure of the gas technologies to pass the electric utilities' calculation of the participant test is difficult to accept. Staff does not believe that approximately 600,000 existing Florida gas customers have made a mistake in their economic decision, nor that the manufacturers of gas technologies would commit resources to develop and market new gas technologies if they are all destined to be market failures. (Tr. 3668, 3673, 3675)

The unusually diverse results of electric utilities' evaluations appear to be based on input assumptions not grounded in Florida specific applications. The Commission should, therefore, require electric utilities to develop Florida specific data through research and demonstration projects on gas technologies. (Tr. 669) Rule 25-17.001(5)(f), F.A.C., assumes aggressive research and development projects are "... an ongoing part of the practice of every well managed electric utility's programs ...". The data gathered would be for the performance and cost-effectiveness of gas technologies for heating, cooling, dehumidification and water heating. (Tr. 1563-64, 2327-32, 3174-75, 3653, 3653, 3665, 3668, 3675, 4188, 4377) (Ex. 6, 36, 51, 156)

For a comparison of the eleven gas technologies results refer to the table on the next page. Note the range of values in the calculations. Those technologies passing a test for any particular utility are highlighted with double outlines. Those above 0.84 on the RIM test are shaded.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| GAS TECHNOLOGIES | | | | | | | | | | | | |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Participant Test | FPC | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | **1.77** | 1.00 | 1.00 | **2.12** | 1.00 |
|  | FP&L | .22 | .31 | .54 | .46 | .42 | .28 | .41 | .53 | .21 | .45 | .49 |
|  | GULF | (.01) | .15 | .42 | .35 | .18 | .19 | .07 | .57 | .17 | .37 | .22 |
|  | TECO | (39,267) | (20,024) | (378) | (5,923) | (7,039) | (118) | - a - | (47) | (1,169) | (64,240) | (17,043) |
| RIM  Test | FPC | .22 | .35 | .62 | .48 | .68 | .99 | **1.06** | .52 | .15 | .91 | .58 |
|  | FP&L | **1.01** | **1.02** | **1.03** | **1.03** | **1.04** | **1.03** | **1.01** | .84 | **1.02** | **1.00** | .91 |
|  | GULF | (.02) | .29 | .31 | .45 | .57 | .58 | .39 | .66 | .33 | .69 | .57 |
|  | TECO | **1.00** | **1.00** | **1.00** | .80 | **1.00** | **1.10** | - a - | .90 | **1.00** | **1.20** | **1.00** |
| TRC  Test | FPC | .22 | .35 | .62 | .48 | .68 | **1.00** | **1.88** | .50 | .15 | **1.93** | .58 |
|  | FP&L | .29 | .48 | .67 | .72 | .75 | .27 | .76 | .59 | .19 | .72 | .78 |
|  | GULF | (.00) | .10 | .31 | .23 | .15 | .12 | .06 | .38 | .11 | .30 | .18 |
|  | TECO | .10 | .20 | .30 | .10 | .40 | .50 | - a - | .40 | .20 | .30 | .40 |

1) Absorption Commercial Single Effect 5) Gas Engine Driven Water Chiller 9) New Installation Residential Cogeneration

2) Absorption Commercial Double Effect 6) Double Integrated Appliance 10) Commercial/Industrial Cogeneration

3) Residential Gas Heat Pump and Hot Water 7) Desiccant Dehumidifier 11) Gas Engine Driven Centrifugal Chiller with

4) Gas Engine Driven Air Conditioner 8) New Installation Water Heater Heat Recovery

a) TECO - Not a viable DSM measure. Summer peak of measure is higher than electric baseline technology.

Double-lined cells with bold data passed the test without the addition of incentives.

Shadowed cells nearly passed.

**Table developed by commission staff from exhibits 6, 36, 51 and 156.**

**ISSUE 53:** What should be TECO's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** TECO's residential conservation goals should be set at the levels identified in the staff column of the following table. [FUTRELL]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PROPOSED RESIDENTIAL CONSERVATION GOALS | | | | | | | | | | | | |
|  | WINTER KW | | | | SUMMER KW | | | | ANNUAL GWH | | | |
|  | TECO | Staff | LEAFFSEIAFCC | DCA | TECO | Staff | LEAF  FSEIA  FCC | DCA | IOU | Staff | LEAF  FSEIAFCC | DCA |
| 1995 | 33 | 36 | 23 | 27 | 10 | 12 | 18 | 12 | 16 | 21 | 13 | 49 |
| 1995 | 65 | 72 | 47 | 55 | 19 | 23 | 37 | 24 | 30 | 41 | 51 | 99 |
| 1996 | 97 | 107 | 70 | 83 | 29 | 35 | 55 | 37 | 45 | 60 | 116 | 150 |
| 1998 | 130 | 142 | 92 | 112 | 38 | 46 | 73 | 49 | 59 | 80 | 207 | 201 |
| 1999 | 163 | 177 | 115 | 140 | 46 | 57 | 92 | 61 | 74 | 99 | 323 | 251 |
| 2000 | 195 | 211 | 138 | 167 | 56 | 68 | 109 | 73 | 88 | 118 | 386 | 300 |
| 2001 | 220 | 239 | 156 | 192 | 63 | 77 | 123 | 84 | 101 | 136 | 445 | 347 |
| 2002 | 244 | 266 | 174 | 215 | 69 | 85 | 137 | 94 | 115 | 154 | 499 | 388 |
| 2003 | 267 | 292 | 190 | 237 | 76 | 93 | 149 | 104 | 128 | 172 | 549 | 427 |
| 2004 | 290 | 318 |  |  | 82 | 101 |  |  | 141 | 189 |  |  |

**Note: The GWH energy goals for a specific year represent single-year impacts for all installations beginning in 1995 through that year.**

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** As set forth in amended Document No. 3, page 1 of 1, of Mr. Currier's Exhibit No. JEC-1 (Exhibit 64). Specifically, in the year 2004, the annual savings under the Tampa Electric residential portfolio are 82 megawatts in the summer and 290 megawatts in the winter as well as 141 gigawatt hours. (Tr. 1481-1482) The record in this proceeding does not contain competent substantial evidence supporting any other goals for Tampa Electric. This issue is discussed in detail in Point I of Tampa Electric's Post-Hearing Statement and Brief.

**DCA:** The Department's proposed numeric conservation goals are presented in Table 7.

Table 7: TECO--Proposed Residential Numeric Conservation Goals

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Gwh** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 49 | 27 | 12 |
| 1996 | 99 | 55 | 24 |
| 1997 | 150 | 83 | 37 |
| 1998 | 201 | 112 | 49 |
| 1999 | 251 | 140 | 61 |
| 2000 | 300 | 167 | 73 |
| 2001 | 347 | 192 | 84 |
| 2002 | 388 | 215 | 94 |
| 2003 | 427 | 237 | 104 |

**DOE:** No position.

**LEAF/EVANS:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| **1994** |  |  |  |
| **1995** | **13** | **23** | **18** |
| **1996** | **51** | **47** | **37** |
| **1997** | **116** | **70** | **55** |
| **1998** | **207** | **92** | **73** |
| **1999** | **323** | **115** | **92** |
| **2000** | **386** | **138** | **109** |
| **2001** | **445** | **156** | **123** |
| **2002** | **499** | **174** | **137** |
| **2003** | **549** | **190** | **149** |

**FCC:** TECO's goals should be set as proposed by LEAF. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA's proposed residential numeric conservation goals have been presented in Table 19.

***Table 19: Tampa Electric Company -- Proposed Residential Numeric Conservation Goals***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 13 | 23 | 18 |
| 1996 | 51 | 47 | 37 |
| 1997 | 116 | 70 | 55 |
| 1998 | 207 | 92 | 73 |
| 1999 | 323 | 115 | 92 |
| 2000 | 386 | 138 | 109 |
| 2001 | 445 | 156 | 123 |
| 2002 | 499 | 174 | 137 |
| 2003 | 549 | 190 | 149 |

**CITY GAS:** No position.

**PEOPLES:** TECO's annual winter and summer kW and kWh conservation goals should include goals for natural gas substitution measures in the residential sector as part of the overall goals recommended by Mr. Krutsinger.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** Staff believes that the Commission in establishing goals, should consider whether the goals are intended to be aspirational or achievable. Witness McDonald stated that if the goals are intended to be "mandatory", he would not recommend using the "best practices" scenario in setting goals. Mr. McDonald also stated that if the goals are set in terms of "aspirations", he recommends the "best practices" scenario. (Tr. 2765-2766) Staff believes that the Commission should expect the goals set to be achieved by TECO.

Several intervenors have favored use of the SRC "best practices" scenario, as adjusted, in setting goals. In most cases, this scenario shows demand and energy savings significantly higher than the goals proposed by TECO. As stated by witness McDonald, the "best practices" scenario assumes a "perfect program" where all investment cost barriers are removed. (Tr. 2733) However, Mr. McDonald admitted on cross examination that the ideal circumstances required to make the "best practices" scenario feasible do not exist. (Tr. 2734) In addition, no party was able to provide the rate impacts of adopting goals based on "best practice." Staff does not believe the Commission should base TECO's goals on the "best practice" scenario.

TECO's proposed goals are derived savings from current programs and additional measures, the savings from which were adjusted from its "Gross RIM Portfolio." (Ex. 64, Ex. 152) Savings from residential measures were weighted by 17 percent to capture free rider effects. A risk factor of 20 percent was then applied to further reduce the savings. (Tr. 4949, Ex. 152)

Staff supports use of the RIM test as a framework for setting goals. Indeed, staff's recommended goals are identical to TECO's gross RIM portfolio listed in exhibit 64. However, staff disagrees with the adjustments TECO made at this goal setting stage of the docket. Staff believes that the 17 percent free rider adjustment to the overall residential savings under the RIM test was arbitrary. Staff also disagrees with the use of the 20 percent risk adjustment to the overall residential savings. Staff believes that these factors and the effects on cost-effectiveness is better dealt with at the program development stage of these dockets. Witness McDonald stated that programs can be designed to minimize free riders. (Tr. 2646) This runs counter to the blanket 17 percent reduction in residential savings.

There is also evidence in the record that regardless of the goals set by the Commission, measures used to establish goals may not be included in program development. Witness Bryant stated that at the time of the hearing he could not identify specific measures that may be part of its DSM program offerings. (Tr. 1455-1456) Staff therefore believes that regardless of the goal level set by the Commission, TECO will evaluate free rider and risk effects on a specific basis in the program development phase and properly apply these effects to the cost effectiveness of the programs it proposes. (Tr. 1456)

**ISSUE 54:** What should be TECO's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** TECO's commercial/industrial conservation goals should be set at the levels identified in the staff column of the following table. [FUTRELL]

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PROPOSED COMMERCIAL/INDUSTRIAL CONSERVATION GOALS | | | | | | | | | | | | |
|  | WINTER KW | | | | SUMMER KW | | | | ANNUAL GWH | | | |
|  | TECO | Staff | LEAF  FSEIA  FCC | DCA | TECO | Staff | LEAF  FSEIA  FCC | DCA | TECO | Staff | LEAF  FSEIA  FCC | DCA |
| 1995 | 1 | 2 | 4 | 13 | 2 | 7 | 15 | 12 | 9 | 29 | 8 | 62 |
| 1996 | 1 | 5 | 9 | 27 | 4 | 13 | 31 | 24 | 17 | 59 | 32 | 125 |
| 1997 | 2 | 7 | 12 | 41 | 5 | 20 | 48 | 36 | 26 | 90 | 73 | 188 |
| 1998 | 3 | 9 | 17 | 55 | 8 | 27 | 66 | 48 | 36 | 120 | 131 | 253 |
| 1999 | 4 | 12 | 22 | 69 | 10 | 34 | 82 | 59 | 44 | 151 | 204 | 316 |
| 2000 | 5 | 14 | 26 | 82 | 12 | 40 | 98 | 71 | 53 | 181 | 244 | 377 |
| 2001 | 5 | 17 | 29 | 95 | 13 | 47 | 114 | 82 | 62 | 211 | 282 | 435 |
| 2002 | 6 | 19 | 33 | 106 | 17 | 53 | 127 | 92 | 71 | 240 | 315 | 487 |
| 2003 | 6 | 21 | 37 | 117 | 18 | 59 | 138 | 101 | 79 | 267 | 347 | 536 |
| 2004 | 7 | 23 |  |  | 20 | 65 |  |  | 86 | 292 |  |  |

**Note: The GWH energy goals for a specific year represent single-year impacts for all installations beginning in 1995 through that year.**

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** As set forth in amended Document No. 3, page 1 of 1, of Mr. Currier's Exhibit No. JEC-1 (Exhibit 64). Specifically, in the year 2004, the annual savings under the Tampa Electric commercial portfolio are 20 megawatts in the summer and 7 megawatts in the winter as well as 86 gigawatt hours. (Tr. 1481-1482) The record in this proceeding does not contain competent substantial evidence supporting any other goals for Tampa Electric. This issue is discussed in detail in Point I of Tampa Electric's Post-Hearing Statement and Brief.

**DCA:** The Department's proposed numeric conservation goals are presented in Table 8.

Table 8: TECO--Proposed C/I Numeric Conservation Goals

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Gwh** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 62 | 13 | 12 |
| 1996 | 125 | 27 | 24 |
| 1997 | 188 | 41 | 36 |
| 1998 | 253 | 55 | 48 |
| 1999 | 316 | 69 | 59 |
| 2000 | 377 | 82 | 71 |
| 2001 | 435 | 95 | 82 |
| 2002 | 487 | 106 | 92 |
| 2003 | 536 | 117 | 101 |

**DOE:** No Position.

**LEAF/EVANS:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | GWH | MW(W) | MW(S) |
| 1994 |  |  |  |
| 1995 | 8 | 4 | 15 |
| 1996 | 32 | 9 | 31 |
| 1997 | 73 | 12 | 48 |
| 1998 | 131 | 17 | 66 |
| 1999 | 204 | 22 | 82 |
| 2000 | 244 | 26 | 98 |
| 2001 | 282 | 29 | 114 |
| 2002 | 315 | 33 | 127 |
| 2003 | 347 | 37 | 138 |

**FCC:** TECO's goals should be set as proposed by LEAF. Rate impacts, identified through RIM or other means, should be accounted for to prevent inequitable rate increases.

**FlaSEIA:** FlaSEIA's proposed commercial/industrial numeric conservation goals have been presented in Table 20.

***Table 20: Tampa Electric Company -- Proposed C/I Numeric Conservation Goals***

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GWH** | **MW(W)** | **MW(S)** |
| 1994 |  |  |  |
| 1995 | 8 | 4 | 15 |
| 1996 | 32 | 9 | 31 |
| 1997 | 73 | 12 | 48 |
| 1998 | 131 | 17 | 66 |
| 1999 | 204 | 22 | 82 |
| 2000 | 244 | 26 | 98 |
| 2001 | 282 | 29 | 114 |
| 2002 | 315 | 33 | 127 |
| 2003 | 347 | 37 | 138 |

**CITY GAS:** No position.

**PEOPLES:** TECO's annual winter and summer kW and kWh conservation goals should include goals for natural gas substitution measures in the commercial/industrial sector as part of the overall goals recommended by Mr. Krutsinger.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The rationale for staff's recommended commercial/industrial goals for TECO is identical to issue 53. It is for the reasons stated in issue 53 that staff proposes the Commission set TECO's commercial/industrial goals at the levels contained in the following table. Goals proposed by other parties are listed for comparison.

**ISSUE 55:** Should a percentage of TECO's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

**RECOMMENDATION:** No. However, TECO should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts. This report should be filed with TECO's DSM Plan. [PALECKI, FUTRELL]

**POSITION OF PARTIES**

**FPL:** No position.

**FPC:** No position.

**GULF:** No position.

**TECO:** No market segment should have individual set asides. Goals should be set on an aggregate basis rather than an end-use basis as supported by a number of witnesses including DCA witness McDonald. All programs must be cost-effective. This issue is discussed in detail in Point II of the Argument section of Tampa Electric's Brief and Post-Hearing Statement.

**DCA:** Yes. See answer to Issue 23.

**DOE:** No Position.

**LEAF/EVANS:** Yes. Adopt FCC's position.

**FCC:** Fifteen percent of the residential conservation goals of TECO should be reserved for customers with incomes below 125% of the poverty level. Fifteen percent of TECO's planned residential conservation cost recovery charges should be earmarked to provide energy conservation programs for these customers. A statewide low income conservation fund should be created, administered by the Florida Department of Community Affairs' weatherization program. The program would be designed within the same three month time frame as other utility energy conservation programs are designed.

**FlaSEIA:** Yes. Supports FCC's position on this issue.

**CITY GAS:** No position.

**PEOPLES:** TECO's programs designed to implement its residential conservation goals should be available to all customers on a non-discriminatory basis. As a matter of policy, Peoples Gas does not object to TECO making special efforts to inform low-income customers of available programs nor to a small percentage "set-aside" for such customers, so long as such practices are cost-effective.

**WFNG:** Agree with Peoples Gas.

**FIPUG:** No. Income subsidies for low income families require social welfare analyses that are beyond the scope of the Commission's authority and would unnecessarily duplicate the duties of other authorized government agencies.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** As stated in Issue 23, staff has recommended that the Commission set overall goals consistent with the Commission's rule. All customers, including low-income customers, should benefit from RIM-based DSM programs. This is because RIM based programs better insure that both participating and non-participating customers benefit from utility sponsored conservation programs. Additional generating is deferred and the rates paid by low-income customers are less than they otherwise would have been. (Tr. 4311)

If the Commission adopts TRC-based goals, staff agrees that low-income customers would be penalized unless they participate in utility conservation programs. Even if they participated, they could pay higher bills unless their savings were sufficient to off-set the increased rates caused by TRC based programs.

Regardless of whether the Commission adopts RIM-based goals or TRC-based goals, staff believes that utilities should be sensitive to the special needs and limitations faced by low income customers. Once overall goals have been established in this docket, utilities must develop conservation programs to achieve the goals. Care should be taken during program development to ensure that low income customers have an equal opportunity to participate in utility conservation programs. In addition, low income customers that do participate should also have the opportunity to realize their fair share of savings from participating in conservation programs. In order to ensure that low income customers are fairly treated, utilities should be required to study and report to the Commission whether a fair percentage of DSM dollars will be made available to low income ratepayers under the utility's DSM portfolio.

Staff also recommends that FPL, FPC, GULF, and TECO be encouraged to participate in any statewide low-income conservation fund administered by DCA.

**Miscellaneous**

**ISSUE 56:** What type of interaction should the Commission have with DCA on CUE measures and Florida Energy Efficiency Code changes?

**RECOMMENDATION:** A task force should be formed consisting of the DCA, Commission staff, utilities, and other interested persons to determine if the building code is the most cost-effective to the participant. [SHINE]

**POSITION OF PARTIES**

**FPL:** The Commission should attempt to be helpful to DCA in modifying the Florida Energy Efficiency Code. Specifically, the Commission should work with DCA to see that CUE measures that pass DCA's cost-effectiveness tests are incorporated into the next Florida Energy Efficiency Code.

**FPC:** FPC believes that DCA is appropriately a party in these proceedings to represent the views of the Governor's Executive Office under the Florida Energy Efficiency and Conservation Act in matters related to energy conservation. It is inappropriate for DCA to attempt to use the Commission as an alternative source of funding, through utility rates, for matters not funded or insufficiently funded by the Florida Legislature. Establishing numeric conservation goals should not be a subterfuge for additional taxation.

**GULF:** The actions of the two agencies regarding conservation measures and energy efficiency should be complementary and not inconsistent. The Commission and utilities should monitor and provide input into DCA decisions concerning Florida Energy Efficiency Code changes. The ultimate decisions concerning Code changes must be left to DCA.

**TECO:** No position.

**DCA:** Considerable potential exists in linking market-based incentive programs with code option measures to accrue net additional energy savings. New energy efficiency options in the marketplace will not have been developed with an over-reliance on regulatory standards. The Commission should encourage energy efficiency measures that achieve results beyond code standards.

**DOE:** No position.

**LEAF/EVANS:** The Commission should assist DCA and the utilities with advocacy of reasonable code improvements. As measures are added to the prescriptive building code, the Commission can reevaluate DSM goals and programs and approve appropriate modifications.

**FCC:** The Commission should work with the Department of Community Affairs and other interested parties on CUE measures and the Florida Energy Efficiency Code in the manner requested by the Department. Building code provisions relating to energy efficiency and utility DSM programs are complimentary and supplementary.

**FlaSEIA:** No position.

**CITY GAS:** No position.

**PEOPLES:** Agree with FPL and Gulf Power that the Commission and utilities should work with and assist DCA in evaluating potential code measures and in promoting the inclusion of cost-effective measures into future versions of the Florida Energy Efficiency Code.

**WFNG:** Agree with FPL and Gulf Power that the Commission and utilities should work with and assist DCA in evaluating potential code measures and in promoting the inclusion of cost-effective measures into future versions of the Florida Energy Efficiency Code.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** The Commission should provide to the DCA a list of measures that it deems best handled by the state energy code. The Commission should cooperate with the DCA in seeking inclusion of these measures in updates to the code.

**CEED:** No position.

**STAFF ANALYSIS:** The critical question debated in prefiled testimony and at the hearing relate to enforcement of the Florida Energy Efficiency Code for Building Construction by the local governments, and the appropriate disposition of the 28 Code Utility Evaluation (CUE) measures for inclusion in the code. The Commission's fourth order on procedure classified certain measures as Code Utility Evaluation (CUE). The respective utilities were required to evaluated these measures separately from the Utility Program (UP) measures, and file the Commission's cost-effectiveness test required by Rule 25-17.008, Florida Administrative Code, as well as the DCA's cost-effectiveness test, the Utility Composite Participant test.

The results of the utility's evaluation indicated that almost all of the 28 CUE measures did not pass the RIM or TRC tests, while many passed the Utility Composite Participant test. The utilities did not include savings from the CUE measures in their proposed goal, and allege these measures should be further evaluated by DCA for inclusion in the building code. DCA alleges that although some of the CUE measures are cost-effective to the participant, none are likely to be added to the code as prescriptive (required) measures. (Tr. 3443) Mr. Dixon indicated that a consensus is necessary to include a measure in the code, and at times the political reality presents resistance to promulgating new rules. (Tr. 3464-65) Mr. Dixon also testified that code compliance, not higher performance standards, represent the major opportunity for improvements in building code efficiency. (Tr. 3443, 3448) Mr. Dixon provided examples of utility involvement which could be pursued in Florida, such as: ratepayer incentives, technical assistance/training, and financial assistance to state and local governments for code enforcement. (Tr. 3445, 3460)

DCA witness Dixon in his response to a question from the Chairman indicated that it is not the responsibility of the utility to ensure code compliance, rather it is the responsibility of the local government and the building code department to pursue compliance. (Tr. 3430, 3457) Staff believes that code compliance is a state and local government issue. Therefore, DCA should pursue Legislative funding to better accomplish this goal.

Staff recommends the formation of a task force with all interested parties to evaluate at a minimum, the cost-effectiveness of the building code, possible revisions to the code including the CUE measures, and evaluation of code compliance methodologies. It is staff's position that if the building code is not the most cost-effective to the participant, the Commission should reopen the service availability charge docket imposing an incrementally higher hook up charge to the customer/builder for imposing inefficiency charges on the remaining body of ratepayers.

Staff recommends that DSM incentives for new home construction programs which fail the participant test, but convey a benefit to other ratepayers, or involve high thermal efficiency cogeneration, natural gas end-use, renewables or solar can be recovered through the energy conservation cost recovery clause, along with lost revenue recovery and incentives.

**ISSUE 57:** What, if any, is the proper linkage among building code options and utility programs in establishing numeric conservation goals, evaluating demand-side management measures?

**RECOMMENDATION:** There is not a linkage at this point in time.

[SHINE]

**POSITION OF PARTIES**

**FPL:** Current building Code Option measures passing DCA's cost-effectiveness tests should be candidates for inclusion in the prescriptive Code and should not be considered in establishing utility conservation goals. If the Code Option measure fails DCA's cost-effectiveness tests but passes both the RIM and Participants tests, it should be evaluated for achievable potential and the measure's achievable potential should compete against all other measures and resources. Code Option measures failing the DCA's cost-effectiveness tests and the RIM and Participants tests should not be considered in establishing goals.

**FPC:** All CUE measures that have passed the Utility Composite Participant Test should be further evaluated by the DCA for possible inclusion in the State Energy Code. This would provide a more cost-effective method of implementation than if electric utilities implemented these measures through DSM.

**GULF:** CUE measures that pass the Utility Composite Participant Test should be further evaluated by the DCA for possible inclusion in the State Energy Code. This would provide a more cost-effective method of implementing these measures than implementation through electric utility DSM.

**TECO:** All CUE measures that have passed the Utility Composite Participant Test should be further evaluated by the DCA for possible inclusion in the state energy code. This would provide a more cost-effective method of implementation than having electric utilities attempt to implement these measures through demand-side management. This issue is addressed in greater detail in Point II of the Argument portion of Tampa Electric's Brief and Post-Hearing Statement.

**DCA:** The Commission should encourage utilities to link codes and new construction programs; provide incentives for new and existing code options to exceed minimums and for efficient technologies and practices leading to code updates; sponsor education programs on codes for the building professions and code inspectors; and provide funds to governments for code enforcement.

**DOE:** No position.

**LEAF/EVANS:** In setting goals and in evaluating measures, the Commission and utilities should evaluate separately the new construction and retrofit market segments. The Commission should consider DCA's analysis of prospective code changes to determine the non-prescriptive code options that should be included in utility DSM potential. Code-option measures can be screened and made a part of a cost-effective new home construction program, with program designs that assure cost-effective savings to ratepayers and to the citizens of Florida. Utility involvement can help move the building code toward greater economic efficiency.

**FCC:** No position.

**FlaSEIA:** No position.

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** No position.

**CEPA:** No position.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** If certain measures are a part of the energy code, their impacts should not be included in the values used to calculate DSM goals, presuming that the utility did not invest in promoting these code requirements. Regulated utilities should not be required to promote measures that rightly belong in the energy code.

**CEED:** No position.

**STAFF ANALYSIS:** Compliance with the Florida Energy Efficiency Code for Building Construction is obtained through either of two paths. The first path, called performance, requires the calculation of an estimated annual energy target utilizing energy points awarded separately for individual measures recognized in the code. (Tr. 3422) Compliance is achieved when a threshold number of points is not exceeded, typically 100 for residential. Builders are afforded the opportunity to trade-off efficiency points with various building code options for most building components so long as the performance target is met. (Tr. 3422)

The second path, called prescriptive, requires the inspection of prescribed insulation levels, equipment efficiencies, maximum window area, and other standards provided in one of the five or six optional packages. (Tr. 3423) It allows no trade-offs among components to achieve overall efficiency.

The proper linkage of code options with DSM programs is limited primarily to the performance method of code compliance. Unfortunately, the performance code in its present form opens the door for the builder to pick and choose between building components trading the efficiency gains of one measure for a less efficient measure installed elsewhere in the dwelling. Consequently, as a result of this practice, there is not an overall net gain in building performance. (Tr. 3425) Mr. Dixon acknowledged the danger that a utility DSM program might provide an incentive for a high efficiency measure that would be used in combination with other less efficient measures to achieve only minimum compliance with the code, ultimately providing no net gain in energy efficiency. (Tr. 3427)

Currently, two utilities are directly involved in the new home construction market. FPL is evaluating the Build Smart R&D program, which has a high probability of being offered in the future after a determination of program cost-effectiveness. (Tr. 4411) GULF continues to operate the Good Cents new construction programs funded out of base rates. Fuel source neutrality has historically been a critical issue of concern with these types of programs, in certain instances these programs may be used to promote one type of technology over the technology of a competing fuel.

Various parties to the docket advocate some type of interaction between the Commission, the utilities, and the DCA. Therefore, staff recommends the development of a task force, as discussed in Issue 56, to address the complex problems which face the DCA and utilities.

**ISSUE 58:** ISSUE DELETED.

**ISSUE 59:** ISSUE DELETED.

**ISSUE 60:** ISSUE DELETED.

**LEGAL**

**ISSUE 61:** What does "reasonably achievable" mean in Rule 25- 17.0021, F.A.C.?

**RECOMMENDATION:**  The term "reasonably achievable" gives the Commission broad discretion to set goals at a level appropriate to carry out the intent of FEECA. [PALECKI]

**POSITION OF PARTIES**

**FPL:** This term has no legal definition. FPL believes that on its face it means that there is a reasonable prospect that the goals established can be achieved through due diligence. Goals should not be unattainable or even so aggressive that there is not a reasonable prospect that they can be achieved.

**FPC:** This term does not lend itself to precise definition. At a minimum, it implies that goals should be set at less than the *maximum* achievable level. "Reasonably achievable" goals therefore would allow a utility the opportunity to exceed as well as fall short of the goal.

**GULF:** "Reasonably achievable" should be interpreted to mean energy and demand savings based on technologies which are available in the marketplace and which have been demonstrated to achieve kw and kwh savings in a cost-effective manner.

**TECO:** The rule adopted by the Commission speaks for itself and Tampa Electric has not attempted to interpret language contained in the rule in connection with any specific factual situation.

**DCA:** Those energy and demand savings that can be acquired by utilities' "best efforts" to develop and implement DSM programs, taking into account a reasonable planning process that includes estimates of overlapping measures, rebound effects, free riders, interactions with building codes and appliance efficiency standards, and the utilities' latest monitoring and evaluation of conservation programs and measures.

**DOE:** No position.

**LEAF/EVANS:** It means those energy and demand savings that can be acquired by utilities' "best efforts" to develop and implement DSM programs, taking into account a reasonable planning process that includes estimates of overlapping measures, rebound effects, free riders, interactions with building codes and appliance efficiency standards, as well as the utility's latest monitoring and evaluation of conservation programs and measures. For potential available through 2003, the SRC Best Practices TRC scenario most nearly embodies the notion of reasonably achievable.

**FCC:** "Reasonably achievable" refers to conservation goals that are consistent with impacts that are deemed to be reasonable. The Commission has a general charge to approve appropriate energy conservation goals.

**FlaSEIA:** No position.

**CITY GAS:** No position.

**PEOPLES:** No position.

**WFNG:** No position.

**FIPUG:** It means don't require customers to pay for something that won't work and to be rational in selecting goals and programs to insure that system reliability is not undermined if the goals are too aggressive.

**CEPA:** CEPA would define "reasonably achievable" to be DSM programs which are cost-effective when all demand and supply side alternatives are contemporaneously evaluated.

**FECA:** No position.

**FMEA:** No position.

**JEA:** No position.

**GAINESVILLE:** No position.

**TALLAHASSEE:** No position.

**CEED:** No position.

**STAFF ANALYSIS:** The electric utilities and FMEA define "reasonably achievable" narrowly, to allow for conservation goals. LEAF and the other intervenors define the term more broadly to allow for greater goals. Actually, the term "reasonably achievable" allows the Commission great discretion and flexibility in setting goals.

It is well settled in Florida that a standard of "reasonableness" does not lend itself to strict definition, but rather entails the exercise of judgement by the finder of fact. For example, "reasonable care" must necessarily vary under different conditions. It cannot be measured or ascertained by any fixed and inflexible standard. Consumers' Electric Light & St. R. Co. v Pryor, 32 So. 797 (Fla. 1902). "Reasonable prudence" cannot be arbitrarily defined. The policy of law has relegated such questions to the jury. It is their province to note the special circumstances and surroundings of each particular case. Hainlin v Budge, 47 So. 825 (Fla. 1908). What is a "reasonable time" to file a pleading cannot be fixed with precision by any general rule. Chabot v Winter Park Co., 15 So. 756 (Fla. 1894). What is a "reasonable time" required to clear title to property depends on the number and complexity of title clouds or defects, taking into account the particular title problems in evidence. Houston v Whiteworth, 444 So. 2d 1095 (Fla. 4DCA, 1984). In determining what constitutes a "reasonable delay" for an incarcerated defendant, the Court must consider all relevant circumstances. There is no bright-line rule; each case must be assessed on its own particular facts. U.S. v Noriega, 746 F. Supp. 1548, 1561 (S.D. Fla. 1990). Since the question of what is "reasonable time" for a Chapter 13 debtor to cure a default is not addressed by the Bankruptcy Code, the determination is left to the discretion of the court and is to be decided based on the facts and equities presented in each case. In re Hickson, Bkrtcy. Fla., 52 B.R. 11, 13 (S.D. Fla. 1991). "Reasonable diligence" on the part of a debtor to uncover the identities and claims of unknown creditors will vary from context to context, and may depend on the nature of the property interest held by the debtor. In re Charter Co., 125 B.R. 650, 655 (M.D. Fla. 1985). The word "reasonable" is a generic term, elastic in its nature; it connotes action according to dictates of reason. Ouellet v Shapiro, 212 A.2d 708, (Conn.App. 1965). The question of "reasonable use" should be submitted to the jury. Florida Power Co. v Cason, 84 So. 921 (Fla. 1920).

It is likewise apparent that the term "reasonably achievable" does not lend itself to strict definition, but rather entails the exercise of discretion by the Commission. "Reasonably achievable" goals would not include goals that are impossible to achieve; nor would overall goals requiring no effort to achieve be considered "reasonably achievable" There is a broad range of discretion between these extremes. The term "reasonably achievable" allows the Commission to exercise broad discretion in setting goals appropriate to carry out the intent of FEECA.

**ISSUE 62:** ISSUE DELETED.

**ISSUE 63:** Should this docket be closed?

**RECOMMENDATION:** Yes.

**STAFF ANALYSIS:** If no party files a Motion for Reconsideration/Notice of Appeal of the Commission's Final Order, no further action will be required of the Commission. Therefore, this docket should be closed.

**POST HEARING MOTIONS**

**ISSUE 64:** Should the Legal Environmental Assistance Foundation Inc.'s Objections to Late-Filed Exhibits be sustained?

**RECOMMENDATION:** Yes. The objections should be sustained and Late-Filed Exhibits 55, 56, 141 and 164 should not be admitted into the record in this docket. [PALECKI]

**STAFF ANALYSIS:** It is longstanding Commission policy that late filed exhibits are taken subject to objection of the parties of record. This is because parties have not had an opportunity to conduct cross-examination on the late filed exhibit so as to determine the reliability or credibility of that evidence. LEAF has filed a legitimate and timely objection to these exhibits. In its objection, LEAF specifically cites its inability to conduct cross-examination on the documents and complains that the documents did not strictly conform to the terms of the request for late filed exhibits. On the basis of the inability to conduct cross-examination alone, staff recommends that late-filed exhibits 55, 56, 141 and 164 be excluded from the record in this docket so as to protect the due process rights of the party objecting.

**ISSUE 65:** Should the Department of Community Affairs' Motion for Reconsideration of Non-Final Order be granted?

**RECOMMENDATION:** No. Reconsideration should be denied. [PALECKI]

**STAFF ANALYSIS:** DCA seeks reconsideration of the ruling not to allow redirect testimony of DCA witness Rick Dixon regarding the "Errata and Additions Sheet" that had previously been excluded from evidence. The "Errata and Additions Sheet" was essentially new or supplemental testimony that was handed to the parties on the morning on which Dixon was called to the witness stand. By Commission vote, the exhibit was excluded from evidence as contravening the Commission's procedural orders and being fundamentally unfair. (Tr. 3407-14) The DCA then sought to elicit from its witness the same information contained on the "Errata and Additions Sheet" through redirect testimony, claiming that TECO had asked questions on cross to "open the door" to this line of questioning. The Commission ruled that no further questions could be asked about the document.

The DCA now argues that its witness should have been permitted to refresh his memory by inspecting the document, and then permitted to testify as to its contents. This is not a new argument, but was made at the hearing and rejected by the Commission. (Tr. 3542)

The DCA has failed to raise any point or contention that the Commission failed to consider or overlooked at the hearing below. See Diamond Cab Co. of Miami v King, 146 So 2d 889 (Fla 1962). In fact, the Commission properly ruled to exclude the exhibit below on two occasions. Where all parties were required by Commission Order to prefile testimony weeks before the hearing, and where DCA made no request or motion to file supplemental testimony, it was entirely proper for the Commission to exclude supplemental testimony cloaked in the guise of an "Errata and Additions Sheet". Staff recommends that the DCA's Motion for Reconsideration of Non-Final Order be denied.

**ISSUE 66:** Should the Department of Community Affairs' Motion to Admit Exhibit 90 be granted?

**RECOMMENDATION:** Yes. Exhibit 90 should be admitted into the record in this docket. [PALECKI]

**STAFF ANALYSIS:** At the hearing in this matter, FPL objected to the new analysis contained in DCA's exhibit 90, and asked for additional time to review the document. The Commission reserved ruling on DCA's request to have the document admitted into the record. On August 9, 1994, DCA filed a written motion to admit exhibit 90. On August 19, 1994, FPL filed a response to DCA's motion enumerating several errors that FPL believes exist in exhibit 90 but withdrawing FPL's objection to the exhibit with the understanding that FPL's "withdrawal should not be viewed as an endorsement of the exhibit."

FPL was the only party to object to exhibit 90. With the withdrawal of FPL's objection the exhibit should be admitted into the record.

**ISSUE 1****:** Is the planning process and data used by FPL in evaluating demand side measures reasonable?

**RECOMMENDATION:**  Yes. [SHINE]

**ISSUE 2****:** What data and analyses are most appropriate for use by the Commission in establishing appropriate numeric conservation goals for FPL?

**RECOMMENDATION:** While the Commission should consider the entire record when it sets FPL's numeric DSM goals, the Commission should rely primarily on the data contained in FPL's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analyses for gas substitution. Pursuant to Issues 27 and 28, FPL should obtain better data on the end-use of natural gas through demonstration projects. [SHINE]

**ISSUE 3****:** Are FPL's proposed goals based upon an adequate assessment of the market segments and major end-use categories pursuant to Rule 25-17.0021 (3), F.A.C.?

**RECOMMENDATION:**  Yes. FPL's proposed goals resulted from an adequate assessment and evaluation of the DSM measures, and the Code Utility Evaluation (CUE) measures, with the exception of the natural gas substitution measures. Pursuant to Issues 27 and 28, FPL should obtain better data on the end-use of natural gas through demonstration projects. [SHINE]

**ISSUE 4:** Is the planning process and data used by FPC in evaluating demand side measures reasonable?

**RECOMMENDATION:**  Yes. [HAFF]

**ISSUE 5:** What data and analyses are most appropriate for use by the Commission in establishing appropriate numeric conservation goals for FPC?

**RECOMMENDATION:**  While the Commission should consider the entire record when it sets FPC's numeric DSM goals, the Commission should rely primarily on the data contained in FPC's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analysis for gas substitution. Pursuant to Issues 35 and 36, FPC should obtain better data on the end-use of natural gas through demonstration projects. [HAFF]

**ISSUE 6:** Are FPC's proposed goals based upon an adequate assessment of the market segments and major end-use categories pursuant to Rule 25-17.0021(3), F.A.C.?

**RECOMMENDATION:**  Yes. FPC's proposed goals resulted from an adequate assessment and evaluation of the DSM measures, and the Code Utility Evaluation (CUE) measures, with the exception of the natural gas substitution measures. Pursuant to Issues 35 and 36, FPC should obtain better data on the end-use of natural gas through demonstration projects. [HAFF]

**ISSUE 7:** Is the planning process and data used by GULF in evaluating demand side measures reasonable?

**RECOMMENDATION:** No. [TAYLOR]

**ISSUE 8:** What data and analyses are most appropriate for use by the Commission in establishing appropriate numeric conservation goals for GULF?

**RECOMMENDATION:** While the Commission should consider the entire record when it sets GULF's numeric DSM goals, staff proposes adjustments to GULF's data in order to compensate for the deficiencies in GULF's planning process. Pursuant to Issues 43 and 44, GULF should obtain better data on the end-use of natural gas through demonstration projects. [TAYLOR]

**ISSUE 9:** Are GULF's proposed goals based upon an adequate assessment of the market segments and major end-use categories pursuant to Rule 25-17.0021 (3), F.A.C.?

**RECOMMENDATION:** No. [TAYLOR]

**ISSUE 10:** Is the planning process and data used by TECO in evaluating demand side measures reasonable?

**RECOMMENDATION:** Yes. [FUTRELL]

**ISSUE 11:** What data and analyses are most appropriate for use by the Commission in establishing appropriate numeric conservation goals for TECO?

**RECOMMENDATION:** While the Commission should consider the entire record when it sets TECO's numeric DSM goals, the Commission should rely primarily on the data contained in TECO's Cost-Effectiveness Goals Results Report (CEGRR) except the data and analyses of gas substitution. Pursuant to Issues 51 and 52, TECO should obtain better data on the end-use of natural gas through demonstration projects. [FUTRELL]

**ISSUE 12:** Are TECO's proposed goals based upon an adequate assessment of the market segments and major end-use categories pursuant to Rule 25-17.0021 (3), F.A.C.?

**RECOMMENDATION:** Yes. TECO's proposed goals resulted from an adequate assessment and evaluation of the DSM measures, and the Code Utility Evaluation (CUE) measures, with the exception of the natural gas substitution measures. Pursuant to Issues 51 and 52, TECO should obtain better data on the end-use of natural gas through demonstration projects. [FUTRELL]

**ISSUE 13:** What is the appropriate definition of avoided cost to be used in the evaluation of demand-side management measures and the establishment of numeric conservation goals?

**RECOMMENDATION:** The Commission should not adopt a single definition of avoided cost. Each utility filing should be evaluated for reasonableness on a case-by-case basis. Also, until DEP is able to quantify externalities, they should be excluded from the definition of avoided costs. [FLOYD]

**ISSUE 14:** ISSUE DELETED.

**ISSUE 15****:** What cost-effectiveness test, cost-effectiveness criteria, or other criteria should the Commission use to set DSM goals?

**RECOMMENDATION:** The Commission should adopt the RIM test at the present time because the savings difference between RIM and TRC in addition to the rate impacts are negligible. However, the Commission should indicate that TRC will be the policy when it is found that the savings are large and the rate impacts are small. Programs that have large savings and small rate impacts may qualify for optional lost revenue recovery and incentives. [BALLINGER]

**ISSUE 16:** Should the Commission implement the Integrated Resource Planning standard set forth in the Public Utilities Regulatory Policy Act (PURPA) as amended by the Energy Policy Act of 1992? If so, what would the effect of implementing the standard be?

**RECOMMENDATION:** No. Staff recommends that the Commission embrace the concept of IRP, but not adopt the Federal IRP standard. Uncertainty exists as to the effect of adopting the Federal standard, and as to the role of the Federal government in interpretation and enforcement of the Federal standard for those states that adopt it. (Tr. 975) [FLOYD, PALECKI]

**ISSUE 17:** If the Commission adopts the federal standard of IRP, did FPL's planning processes used to propose conservation goals meet the federal standard of "IRP"?

**RECOMMENDATION**: Yes. Assuming that the definition of IRP is a broad statement of policy, it appears FPL's planning process is consistent with the federal standard. [SHINE, FLOYD]

**ISSUE 18:** If the Commission adopts the federal standard of IRP, did FPC's planning processes used to propose conservation goals meet the federal standard of "IRP"?

**RECOMMENDATION:**  Yes. Assuming that the definition of IRP is a broad statement of policy, it appears that FPC's planning process is consistent with the federal standard. [HAFF, FLOYD]

**ISSUE 19:** If the Commission adopts the federal standard of IRP, did GULF's planning processes used to propose conservation goals meet the federal standard of "IRP"?

**RECOMMENDATION:** Yes. Assuming that the definition of IRP is a broad statement of policy, it appears that GULF's planning process is consistent with the federal standard. [TAYLOR, FLOYD]

**ISSUE 20:** If the Commission adopts the federal standard of IRP, did TECO's planning processes used to propose conservation goals meet the federal standard of "IRP"?

**RECOMMENDATION:** Yes. Assuming that the definition of IRP is a broad statement of policy, it appears TECO's planning process is consistent with the federal standard. [FUTRELL, FLOYD]

**ISSUE 21:** Should the Commission implement the Investments In Conservation And Demand Management standard in the Public Utility Regulatory Policy Act as amended by the Energy Policy Act of 1992? If so, what would the effect of implementing the standard be?

**RECOMMENDATION:** No. Staff recommends that the Commission embrace the concept of the Investments In Conservation and Demand Management standard as set forth in the Energy Policy Act, but not adopt the Federal standard. Uncertainty exists as to the effect of adopting the Federal standard, and as to the role of the Federal government in interpretation and enforcement of the Federal standard for those states adopting it. Staff recommends that, upon petition from a utility, lost revenue recovery and stockholder incentives be considered on a case-by-case basis for solar, renewables, natural gas substitution, high efficiency cogeneration and other measures or programs that have high savings and negligible rate impacts. [FLOYD, PALECKI]

**LEGAL**

**ISSUE 22:** Pursuant to Rule 25-17.0021, F.A.C., and other applicable legal authority, can the Commission set numeric goals for each major end-use category within each market segment?

**RECOMMENDATION:**  Yes. The Commission has broad discretion to set appropriate goals to carry out the intent of FEECA. [PALECKI]

**ISSUE 23:** If numeric goals should be set for each major end-use category within each market segment, what should FPL's goals be?

**RECOMMENDATION:** Overall numeric goals should be set for the residential and commercial/industrial sectors consistent with Rule 25-17.0021, F.A.C. Staff believes setting end-use goals is too much governmental interference and information is too sparse to conclude that goals for solar, renewables, and natural gas substitution will result in large power plant savings that have minimal rate impacts. If numeric goals are set by end-use, the Commission should rely on Exhibit 15, Document No. 2. [SHINE]

**ISSUE 24:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPL's goals be?

**RECOMMENDATION:** The Commission should require FPL to develop alternate funding sources such as voluntary Green Pricing where customers contribute to a fund to be used to promote the installation of solar water heating and other renewable measures. FPL should evaluate voluntary Green Pricing in conjunction with the development of DSM programs designed to meet FPL's numeric goals. [SHINE]

**ISSUE 25:** ISSUE DELETED.

**ISSUE 26:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C., and if so, what should FPL's goals be?

**RECOMMENDATION:**  No. [SHINE]

**ISSUE 27:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPL's goals be?

**RECOMMENDATION:**  No. The Commission should not set goals for FPL for natural gas substitution for electricity. [MILLS, SHINE]

**ISSUE 28:** Should the Commission direct FPL to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

**RECOMMENDATION:**  No. However, the Commission should require FPL to conduct research and demonstration projects on the eleven gas technologies reviewed in this docket to develop Florida specific information on performance and cost-effectiveness of those technologies for heating, cooling, dehumidification and water heating. FPL should be required to file within six months, in a separate docket, its plans for these research and development projects in accord with the provisions of 25-17.001(5)(f). The Commission should encourage and even consider rewarding FPL if the company cooperatively develops joint projects with gas utilities that produce measurable conservation savings. [MILLS, SHINE]

**ISSUE 29:** What should be FPL's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:**  FPL's residential conservation goals should be set at the levels identified in the staff column of the following table. [SHINE]

**ISSUE 30:** What should be FPL's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** FPL's commercial/industrial conservation goals should be set at the levels identified in the Staff column of the following table. [SHINE]

**ISSUE 31:** Should a percentage of FPL's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

**RECOMMENDATION:** No. However, FPL should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts. This report should be filed with FPL's DSM Plan. [PALECKI, SHINE]

**ISSUE 32:** If numeric goals should be set for each major end-use category within each market segment, what should FPC's goals be?

**RECOMMENDATION:**Overall numeric goals should be set for the residential and commercial/industrial sectors consistent with Rule 25-17.0021, Florida Administrative Code. Staff believes setting end-use goals is too much governmental interference and information is too sparse to conclude that goals for solar, renewables, and natural gas substitution will result in large power plant savings that have minimal rate impacts. If numeric goals are set by end-use, the Commission should rely on Exhibit No. 146. [HAFF]

**ISSUE 33:** Pursuant to the decision in Issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPC's goals be?

**RECOMMENDATION:** The Commission should require FPC to develop alternate funding sources such as voluntary Green Pricing where customers contribute to a fund to be used to promote the installation of solar water heating and other renewable measures. FPC should evaluate voluntary Green Pricing in conjunction with the development of DSM programs designed to meet FPC's numeric goals. [HAFF]

**ISSUE 34:** Pursuant to the decision in Issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C., and if so, what should FPC's goals be?

**RECOMMENDATION:** No. [HAFF]

**ISSUE 35:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should FPC's goals be?

**RECOMMENDATION:** No. The Commission should not set goals for FPC for natural gas substitution for electricity. [MILLS, HAFF]

**ISSUE 36:** Should the Commission direct FPC to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

**RECOMMENDATION:** No. However, the Commission should require FPC to conduct research and demonstration projects on the eleven gas technologies reviewed in this docket to develop Florida specific information on performance and cost-effectiveness of those technologies for heating, cooling, dehumidification and water heating. FPC should be required to file within six months, in a separate docket, its plans for these research and development projects in accord with the provisions of 25-17.001(5)(f). The Commission should encourage and even consider rewarding FPC if the company cooperatively develops joint projects with gas utilities that produce measurable conservation savings. [MILLS, HAFF]

**ISSUE 37:** What should be FPC's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:**  FPC's residential conservation goals should be set at the levels identified in the staff column of the following table. [HAFF]

**ISSUE 38:** What should be FPC's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:**  FPC's commercial/industrial conservation goals should be set at the levels identified in the staff column of the following table. [HAFF]

**ISSUE 39:** Should a percentage of FPC's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

**RECOMMENDATION:** No. However, FPC should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts. This report should be filed with FPC's DSM Plan. [PALECKI, HAFF]

**ISSUE 40:** If numeric goals should be set for each major end-use category within each market segment, what should GULF's goals be?

**RECOMMENDATION:** Overall numeric goals should be set for the residential and commercial/industrial sectors consistent with Rule 25-17.0021, F.A.C. Staff believes setting end-use goals is too much governmental interference and information is too sparse to conclude that goals for solar, renewables, and natural gas substitution will result in large power plant savings that have minimal rate impacts. If numeric goals are set by end-use, the Commission should rely on Exhibit No. 52. [TAYLOR]

**ISSUE 41:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should GULF's goals be?

**RECOMMENDATION:** The Commission should require GULF to develop alternate funding sources such as voluntary Green Pricing where customers contribute to a fund to be used to promote the installation of solar water heating and other renewable measures. GULF should evaluate voluntary Green Pricing in conjunction with the development of DSM programs designed to meet GULF's numeric goals. [TAYLOR]

**ISSUE 42:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C., and if so, what should GULF's goals be?

**RECOMMENDATION:** No. [TAYLOR]

**ISSUE 43:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1994-2003 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should GULF's goals be?

**RECOMMENDATION:** No. The Commission should not set goals for GULF for natural gas substitution for electricity. [MILLS, TAYLOR]

**ISSUE 44:** Should the Commission direct GULF to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

**RECOMMENDATION:** No. However, the Commission should require GULF to conduct research and demonstration projects on the eleven gas technologies reviewed in this docket to develop Florida specific information on performance and cost-effectiveness of those technologies for heating, cooling, dehumidification and water heating. GULF should be required to file within six months, in a separate docket, its plans for these research and development projects in accord with the provisions of 25-17.001(5)(f). The Commission should encourage and even consider rewarding GULF if the company cooperatively develops joint projects with gas utilities that produce measurable conservation savings. [MILLS, TAYLOR]

**ISSUE 45:** What should be GULF's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** GULF's residential conservation goals should be set at the levels identified in the staff column of the following table. [TAYLOR]

**ISSUE 46:** What should be GULF's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1994-2003 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** GULF's commercial/industrial conservation goals should be set at the levels identified in the staff column of the following table. [TAYLOR]

**ISSUE 47:** Should a percentage of GULF's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

**RECOMMENDATION:** No. However, GULF should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts. This report should be filed with GULF's DSM Plan. [PALECKI, TAYLOR]

**ISSUE 48:** If numeric goals should be set for each major end-use category within each market segment, what should TECO's goals be?

**RECOMMENDATION:** Overall numeric goals should be set for the residential and commercial/industrial sectors consistent with Rule 25-17.0021, F.A.C. See Issues 53 and 54 for staff's recommendation of TECO's goals. Staff believes setting end-use goals is too much governmental interference and information is too sparse to conclude that goals for solar, renewables, and natural gas substitution will result in large power plant savings that have minimal rate impacts. If numeric goals are set by end-use, the Commission should rely on Exhibit No. 63. [FUTRELL]

**ISSUE 49:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH solar energy and renewable energy sources during the period 1995-2004 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should TECO's goals be?

**RECOMMENDATION:** The Commission should require TECO to develop alternate funding sources such as voluntary Green Pricing where customers contribute to a fund to be used to promote the installation of solar water heating and other renewable measures. TECO should evaluate voluntary Green Pricing in conjunction with the development of DSM programs designed to meet TECO's numeric goals. [FUTRELL]

**ISSUE 50:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH new construction goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C., and if so, what should TECO's goals be?

**RECOMMENDATION:** No. [FUTRELL]

**ISSUE 51:** Pursuant to the decision in issue 22, should the Commission set goals for residential and commercial/industrial winter and summer KW, and residential and commercial/industrial annual KWH natural gas substitutes for electricity during the period 1995-2004 pursuant to Rule 25-17.0021(3), F.A.C., and if so, what should TECO's goals be?

**RECOMMENDATION:** No. The Commission should not set goals for TECO for natural gas substitution for electricity. [MILLS, FUTRELL]

**ISSUE 52:**  Should the Commission direct TECO to implement, in cooperation with natural gas utilities within its service territory, cost-effective market pilot programs involving cost-effective commercial/industrial natural gas technologies?

**RECOMMENDATION:**  No. However, the Commission should require TECO to conduct research and demonstration projects on the eleven gas technologies reviewed in this docket to develop Florida specific information on performance and cost-effectiveness of those technologies for heating, cooling, dehumidification and water heating. TECO should be required to file within six months, in a separate docket, its plans for these research and development projects in accord with the provisions of 25-17.001(5)(f). The Commission should encourage and even consider rewarding TECO if the company cooperatively develops joint projects with gas utilities that produce measurable conservation savings. [MILLS, FUTRELL]

**ISSUE 53:** What should be TECO's annual residential winter and summer KW and annual residential KWh conservation goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** TECO's residential conservation goals should be set at the levels identified in the staff column of the following table. [FUTRELL]

**ISSUE 54:** What should be TECO's annual commercial/industrial winter and summer KW and annual commercial/industrial KWh conservation goals during the period 1995-2004 pursuant to Rule 25-17.0021, F.A.C.?

**RECOMMENDATION:** TECO's commercial/industrial conservation goals should be set at the levels identified in the staff column of the following table. [FUTRELL]

**ISSUE 55:** Should a percentage of TECO's residential conservation goals be reserved for low and very low income customers, and, if so, how should the reservation be calculated and implemented?

**RECOMMENDATION:** No. However, TECO should be required to address the availability and saturation of conservation programs by residential low income customers in program development. Utilities should be required to study and report to the Commission whether low income customers are receiving their fair share of benefits from utility conservation efforts. This report should be filed with TECO's DSM Plan. [PALECKI, FUTRELL]

**ISSUE 56:** What type of interaction should the Commission have with DCA on CUE measures and Florida Energy Efficiency Code changes?

**RECOMMENDATION:** A task force should be formed consisting of the DCA, Commission staff, utilities, and other interested persons to determine if the building code is the most cost-effective to the participant. [SHINE]

**ISSUE 57:** What, if any, is the proper linkage among building code options and utility programs in establishing numeric conservation goals, evaluating demand-side management measures?

**RECOMMENDATION:** There is not a linkage at this point in time.

[SHINE]

**ISSUE 58:** ISSUE DELETED.

**ISSUE 59:** ISSUE DELETED.

**ISSUE 60:** ISSUE DELETED.

**LEGAL**

**ISSUE 61:** What does "reasonably achievable" mean in Rule 25- 17.0021, F.A.C.?

**RECOMMENDATION:**  The term "reasonably achievable" gives the Commission broad discretion to set goals at a level appropriate to carry out the intent of FEECA. [PALECKI]

**ISSUE 62:** ISSUE DELETED.

**ISSUE 63:** Should this docket be closed?

**RECOMMENDATION:** Yes.

**ISSUE 64:** Should the Legal Environmental Assistance Foundation Inc.'s Objections to Late-Filed Exhibits be sustained?

**RECOMMENDATION:** Yes. The objections should be sustained and Late-Filed Exhibits 55, 56, 141 and 164 should not be admitted into the record in this docket.

**ISSUE 65:** Should the Department of Community Affairs' Motion for Reconsideration of Non-Final Order be granted?

**RECOMMENDATION:** No. Reconsideration should be denied.

**ISSUE 66:** Should the Department of Community Affairs' Motion to Admit Exhibit 90 be granted?

**RECOMMENDATION:** Yes. Exhibit 90 should be admitted into the record in this docket.