State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA 32399-0850

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

DATE:

December 16, 2022

TO:

Docket File

FROM:

Jon Rubottom, Attorney JHP

RE:

Docket No. 20200181-EU, In re: Proposed amendment of Rule 25-17.0021,

F.A.C., Goals for Electric Utilities.

Please place the attached comments, received from Michael Weiss on December 16, 2022, in the docket file for Docket No. 20200181-EU.



BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: PROPOSED AMENDMENT FOR RULE 25-17.0021, F.A.C., GOALS FOR

ELECTRIC UTILITIES

DOCKET NO. 20200181-EU FILED: December 16, 2022

Advanced Energy Economy's Third Post-Workshop Comments on the <u>Proposed Amendments to Rule 25-17.0021, F.A.C.</u>

Introduction

Advanced Energy Economy (AEE) appreciates the opportunity to submit these comments on the proposed amended rule language for Rule 25-17.0021, F.A.C. to update the development of energy efficiency goals for Florida utilities. Energy efficiency is an issue in which AEE has deep expertise and a history of engagement in Florida. In addition to our February 15, 2021, comments¹ and testimony provided on January 14, 2021, and November 30, 2022, in the above-referenced proceeding, we hope you will find the information below helpful as you continue to deliberate on this critical issue to Florida's energy future.

AEE is a national association of businesses committed to making the energy we use secure, clean, and affordable. AEE represents more than 100 companies in the \$240 billion U.S. advanced energy industry that employs 3.2 million U.S. workers.² Within Florida, the advanced energy industry employs 162,300 workers, including 114,110 jobs in energy efficiency alone,

¹ Florida Public Service Commission, *Comments of Advanced Energy Economy*, February 15, 2021, http://www.floridapsc.com/library/filings/2021/02189-2021/02189-2021.pdf.

² About AEE, Advanced Energy Economy. (May 2022), https://www.aee.net/about/aee.

but also 27,000 in advanced electricity generation, 11,500 jobs in advanced vehicles, 5,300 jobs in advanced grid and energy storage, and 4,400 jobs in advanced fuels.³

Although these numbers are growing under current policy, there is no doubt that if this Commission puts the right rules in place, this number will further multiply. Specifically, energy efficiency jobs are inherently local, and jobs like energy auditors or battery repair crews cannot be outsourced to another state or overseas. Another benefit is that lowering energy demand through energy efficiency practices means that the associated cost savings go directly back into ratepayers' pockets. This extra money is a much-needed economic boost for Florida's small businesses and families, especially for households that are high-energy-burdened. For example, based on 2017 data, more than 20% of Miami households spent more than 6% of their income on energy, and among those, about half were considered to have a severe energy burden (>10% of income spent on energy). This problem has only been further aggravated by recent rising fuel and electricity costs.

Thus, AEE fully supports Florida's desire for more resilient, affordable, and clean energy, a core part of which should be increased energy efficiency achievement. There is a direct relationship between increased energy efficiency and economic benefits for utility customers and the state as a whole, and utilities have an important role to play in creating a vibrant market for energy efficiency products and services.

³ Florida Fact Sheet 2022, Advanced Energy Economy, https://www.aee.net/aee-reports/2022-advanced-energy-employment-fact-sheets.

⁴ Id.

⁵ Drehobl, A., Ross, L., & Ayala, R. (2020, September). How High Are Household Energy Burdens?: An Assessment of National and Metropolitan Energy Burden across the United States. American Council for an Energy-Efficient Economy. Retrieved September 23, 2022, from https://www.aceee.org/sites/default/files/pdfs/u2006.pdf.

⁶ Cavros, G. (2022, September 10). Florida Power Bills To Spike (again!): Reliance on Fossil Gas Largely to Blame. Southern Alliance for Clean Energy. Retrieved September 23, 2022, from https://cleanenergy.org/blog/florida-power-bills-to-spike-again-reliance-on-fossil-gas-largely-to-blame/.

Background

According to the American Council for an Energy Efficient Economy (ACEEE), Florida currently ranks 29th in the nation for energy efficiency, which is a drop from 24th place a few years ago. In terms of energy efficiency savings as a percentage of electricity sales, most states within the southeast outperform Florida in investing in energy efficiency programs that provide opportunities for customers to save energy and money, and Florida utilities perform even more poorly when compared to the national average. Florida's annual achievement of energy efficiency savings has also fallen considerably since 2012. Even so, current targets are well below even the more recent, poorer performance reported by the ACEEE.

Improving the performance of utility energy efficiency programs begins with the setting of appropriate goals, which is the subject of this rule development. To this end, the Florida Legislature has given the Commission broad authority to adopt novel solutions and policies toward utility energy efficiency goals in the Florida Energy Efficiency and Conservation Act ("FEECA").¹⁰

AEE appreciates the efforts of the Commission and Staff to update the rules governing utility energy efficiency programs. Overall, AEE views the proposed amendments as a step in the right direction, but there is still room to make further changes toward a more energy-efficient future. Below, we offer both general observations on how to increase the deployment of energy efficiency in Florida. We also provide recommendations on the proposed

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⁷ The 2022 State Energy Efficiency Scorecard. American Council for an Energy-Efficient Economy. (December 2022), https://www.aceee.org/sites/default/files/pdfs/u2206.pdf.

⁸ York, D., & Cohn, C. (2021, January). *Unrealized Potential: Expanding Energy Efficiency Opportunities for Utility Customers in Florida*. American Council for an Energy-Efficiency Economy. Retrieved September 18, 2022, from https://www.aceee.org/sites/default/files/pdfs/expanding-ee-opportunities-in-florida.pdf.

¹⁰ Section 366.81, Florida Statute (2022).

amendments of Rule 25-17.0021, F.A.C., including specific redline edits to the rule language in Appendix 1.

Choice of Benefit-Cost Tests

As we noted in earlier comments and testimony, the Commission has relied on the Ratepayer Impact Measure (RIM) test for quite some time. The drawback of this test is that it only measures if customers' bills or rates will go up or down due to a given program's costs. This test does not measure the savings that would accrue to customers if they were to participate in those programs. Therefore, even if an energy efficiency program results in a minimal bill increase, regardless of how much efficiency savings it creates, it will fail this test if it increases a customer's bill.¹¹ Thus, we recommend the elimination of the use of the RIM test and support the addition of the Participant and Total Resource Cost (TRC) tests as a step in the right direction.¹² Applying these tests would allow regulators to "compare the value of avoided energy and other resources from all sources with the full cost of the efficiency measures plus all non-measure program costs."¹³ That being said, there are also limitations to these tests, so we also recommend that the Commission add the Program Administrator Cost Test, also known as the Utility Cost Test (UCT), to the updated Rule requirements for its

Neme, C., & Kushler, M. (2010). Is it time to ditch the TRC? examining concerns with current ... - ACEEE. American Council for an Energy-Efficient Economy. Retrieved May 27, 2022, from https://www.aceee.org/files/proceedings/2010/data/papers/2056.pdf.



¹¹ Neme, C., & Kushler, M. (2010). Is it time to ditch the TRC? examining concerns with current ... - ACEEE. American Council for an Energy-Efficient Economy. Retrieved May 27, 2022, from https://www.aceee.org/files/proceedings/2010/data/papers/2056.pdf.

¹² It may be advantageous for the Commission to include a societal adder that measures non-energy benefits in its consideration of the TRC test. This adder is a practice in several states that accounts for non-energy benefits such as improved indoor air quality and health for participants, fewer shutoffs and reconnections, and lower operating and maintenance costs.

consideration and evaluation of scenarios and programs.^{14,15} This test ".... examines the costs and benefits of the energy efficiency program from the perspective of the entity implementing the program (utility, government agency, nonprofit, or other third party)." This could include but is not limited to overhead and incentive costs.¹⁶ The advantage of this additional test is that it assesses the cost of a given policy or program from all sides and marketplace participants, including supply-side concerns, such as rebate programs. This creates a total picture of what a program will genuinely cost and what are its actual benefits. It also removes the ambiguity that is found in quantifying non-energy benefits with the TRC test.¹⁷

Elimination of the Two-Year Payback Screen

Further hampering energy efficiency successes is Florida's use of a two-year payback to screen out measures that have a simple payback to customers of two years or less. ¹⁸ The result is that Florida is unnecessarily limiting the deployment of energy efficiency measures and costing its families and businesses extra energy costs daily. We recommend that this payback screen should be abandoned in favor of policies and practices that are transparent and measured through evidence-based and industry-standard methodologies. This arbitrary standard should be replaced with a more comprehensive benefit-cost analysis (BCA)

¹⁸ Florida Public Service Commission, *Order No. PSC-14-0696-FOF-EU* at 23-24, December 16, 2014, http://www.floridapsc.com/library/filings/2014/06758-2014/06758-2014.pdf.



¹⁴ AEE advocates for adopting the UCT definition found in the National Standard Practice Manual For Benefit-Cost Analysis of Distributed Energy Resources. See National Standard Practice Manual For Benefit-Cost Analysis of Distributed Energy Resources. National Efficiency Screening Project. (August 2020),

https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-DERs 08-24-2020.pdf.

¹⁵ Adding the UCT may require the Commission to reexamine Rule 25-17.008, F.A.C. This is because this rule incorporates the Cost Effectiveness Manual For Demand Side Management Programs and Self-Service Wheeling Proposals which includes the various tests the PSC uses for evaluating programs. The present manual does not include the UCT and thus may need to be added in an additional rulemaking proceeding.

¹⁶ United State Department of Energy: The Office of Energy Efficiency and Renewable Energy. (n.d.). *Glossary*. Glossary | Residential Program Guide. Retrieved September 19, 2022, from https://rpsc.energy.gov/glossary/p.

¹⁷ Neme, C., & Kushler, M. (2010). Is it time to ditch the TRC? examining concerns with current ... - ACEEE. American Council for an Energy-Efficient Economy. Retrieved May 27, 2022, from https://www.aceee.org/files/proceedings/2010/data/papers/2056.pdf.

framework that is supported by best practices in evaluation, measurement, and verification. Free ridership should also be addressed at the program level with good program design. Specifically, this BCA framework must show the utility's expectations for naturally occurring energy efficiency adoption outside of the impact utility-administered programs. This way the Commission and staff can properly assess each program's real impact beyond what would occur without a utility-administered program. This will, in turn, provide regulators with a clear picture of how to set up and administer successful energy efficiency programs.

To this end, in our February 15, 2021 comments, we recommended that the Commission should move away from practices that unnecessarily limit the deployment of energy efficiency measures that are commonly and widely adopted.¹⁹ This includes the adoption of accepted best practices for BCA for energy efficiency and utility demand-side management program design, such as the use of the National Standard Practice Manual (NSPM), which provides a set of principles and a structured framework for jurisdictions to develop BCA that suits their needs.²⁰

Measures to Include in the Potential Study

We recommend modifying the Major Use Categories language for residential, commercial, and industrial in Sections 2 and 3. Specifically, we recommend deleting "Natural Gas Substitutes for Electricity" and replacing it with "Efficient Electricity Substitutes for Natural Gas," adding behavioral energy efficiency for residential customers, and including "Demand Response," and "Other" in both categories. This new language will enable the utilities to include the latest technologies and practices in the marketplace designed to increase energy

¹⁹ Florida Public Service Commission, *Comments of Advanced Energy Economy*, February 15, 2021, http://www.floridapsc.com/library/filings/2021/10088-2021.pdf.

²⁰ NSPM References and Application. National Efficiency Screening Project. (December 2022), https://www.nationalenergyscreeningproject.org/national-standard-practice-manual/state-references/.

efficiency and improve demand management and, thus, drive more cost-effective energy savings.

Transmission and Distribution (T&D) Energy Efficiency Considerations

Although this draft language deals primarily with demand-side energy efficiency programs, one of the implementing statutes for this rulemaking allows for "efficiency investments across generation, transmission, and distribution..." Therefore, we propose that the Commission also consider T&D efficiency opportunities in addition to this rulemaking. More efficient T&D reduces system energy losses, creating system-wide benefits. This, in turn, can reduce electricity prices for all customers as it decreases the amount of energy needed and potentially reduces overall investment that must be recovered in rates.

We offer two examples of T&D solutions that can lead to greater efficiencies. The first is conservation voltage reduction and volt/VAR optimization (CVR/VVO). These applications are "...a process of optimally managing voltage levels and reactive power to achieve more efficient grid operation by reducing system losses, peak demand or energy consumption[,] or a combination of the three." This is achieved by using "voltage control devices...to shrink the voltage drop from the substation to the end of the line and reduce the service voltage to customers while maintaining the voltage within defined limits." The efficiencies come from finding the balance between decreasing the use of energy, but at the same time, not reducing electricity service.²³ The second example is the deployment of more efficient

²³ Clarion Energy Content Directors. (2015, August 20). *Determining the impacts of Volt/var optimization:* A tale of two approaches. POWERGRID International. Retrieved December 14, 2022, from https://www.power-grid.com/energy-efficiency/determining-the-impacts-of-volt-var-optimization-a-tale-of-two-approaches/#gref.



²¹ Section 366.82(2), Florida Statute (2022).

²² Adding the transmission and distribution utility savings programs may require the Commission to reexamine Rule 25-17.008, F.A.C. This is because this rule incorporates the Cost Effectiveness Manual For Demand Side Management Programs and Self-Service Wheeling Proposals which includes guidance for evaluating programs. The present manual does not include transmission and distribution, which may need to be added in an additional rulemaking proceeding.

infrastructure components throughout the grid, such as conductors that reduce electrical resistance and line losses by as much as 25 to 40 percent.²⁴

In considering these "utility-side" efficiency options, the Commission should ensure that they produce net benefits for customers using an appropriate cost-benefit analysis. Furthermore, such investments should not be seen as a replacement for, or diminish the level of investment in, the customer-side energy efficiency programs detailed above that are the subject of the current ruelmaking.

Conclusion

AEE appreciates the time this Commission and its staff have taken with this rulemaking. This rulemaking is an important first step to drive real changes for Floridians and the state's economy, by replacing an outdated benefit-cost test with tests that properly evaluate utility energy efficiency programs and by eliminating the two-year payback screen. This way, the Commission can properly assess a program's true savings potential to benefit all ratepayers. We also recommend additional language that ensures that all energy efficiency measures are considered, including new and emerging technologies and practices, leading to even more cost-effective energy savings. We look forward to continuing to contribute to this discussion and investigation to adopt standards that will align with this Commission's desire to make a real impact on the lives of residents and the economy of Florida.

Respectfully Submitted,

Michael J. Weiss

²⁴ For example, see: Learn about CTC Global. (2021, December 22). CTC Global. Retrieved December 14, 2022, from https://ctcglobal.com/about/.

Policy Principal

Advanced Energy Economy



Appendix 1:

Advance Energy Economy's Proposed Changes to Proposed Amendment of Rule 25-17.0021, F.A.C, Goals for Electricity Utilities

Please note that words <u>underlined</u> are additions to the existing proposed rule; words in <u>struck through</u> type are deletions from the existing proposed rule. Red words that are <u>double underlined</u> are AEE's proposed additions; red words in double strike through type are AEE's proposed deletions from the existing proposed rule.

25-	17	0021	Goals	for	Electric	Utilities.
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(1) The Commission will shall initiate a proceeding at least once every five years to
establish <u>numerical</u> goals for each affected electric utility, as defined by Section 366.82(1)(a),
F.S., to reduce the growth rates of weather-sensitive peak demand, to reduce and control the
growth rates of electric consumption, and to increase the conservation of expensive resources,
such as petroleum fuels. The Commission will set annual Overall Residential kilowatt (KW)
and kilowatt-hour (KWH) goals and annual overall Commercial/Industrial KW and KWH
goals shall be set by the Commission for each year over a ten-year period. The goals, which
may include numerical goals and non-numerical goals, will shall be based on:
(a) An assessment of the technical potential of available measures; and
(b) aAn estimate of the total cost-effective KW kilowatt and KWH kilowatt-hour
savings reasonably achievable through demand-side management programs in each
utility's service area over a ten-year period.
(2) Pursuant to the schedule in an order establishing procedure in the proceeding to
establish demand-side management goals, each utility must file a technical potential study.
The Commission shall set goals for each utility at least once every five years. The technical
potential study must be used to develop the proposed demand-side management goals, and it
must assess the full technical potential of all available demand-side conservation and
efficiency measures, including demand-side renewable energy systems, associated with each
of the following market segments and major end-use categories.
Residential Market Segment:
(Existing Homes and New Construction should be separately evaluated) Major End-Use
Category

(a) Building Envelope Efficiencies.

(b) Cooling and Heating Efficiencies.

1	(c) Water Heating Systems.
2	(d) Lighting Efficiencies.
3	(e) Appliance Efficiencies.
4	(f) Peak Load Shaving.
5	(g) Solar Energy and Renewable Energy Sources.
6	(h) Natural Gas Substitutes for Electricity Efficient Electricity Substitutes for Natural
7	Gas.
8	(i) Behavioral Energy Efficiency.
9	(j) Demand Response.
10	(k) Other.
11	Commercial/Industrial Market Segment:
12	(Existing Facilities and New Construction should be separately evaluated) Major End-Use
13	Category
14	(il) Building Envelope Efficiencies.
15	(im) Cooling and Heating Efficiencies.
16	(kn) Lighting Efficiencies.
17	(lo) Appliance Efficiencies.
18	(mp) Power Equipment/Motor Efficiency.
19	(nq) Peak Load Shaving.
20	(er) Water Heating Systems.
21	(ps) Refrigeration/Freezing Equipment.
22	(et) Solar Energy and Renewable Energy Sources.
23	(ru) Natural Gas Substitutes for Electricity Efficient Electricity Substitutes for Natural
24	Gas.
25	(sv) High Thermal Efficient Self Service Cogeneration.

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2 (x) Other.

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Each utility's filing must describe how the technical potential study was used to develop the goals filed pursuant to subsection (3) below, including identification of measures that were analyzed but excluded from consideration from the technical potential study and any subsequent economic and achievable potential studies. The Commission on its own motion or petition by a substantially affected person or a utility may initiate a proceeding to review and, if appropriate, modify the goals. All modifications of the approved goals, plans and programs shall only be on a prospective basis.

(3) Pursuant to the schedule in an order establishing procedure in the proceeding to establish demand-side management goals, each utility must file its proposed demand-side management goals. In a proceeding to establish or modify goals, each utility shall propose numerical goals for the ten year period and provide ten year projections, based upon the utility's most recent planning process, of the total, cost-effective, winter and summer peak demand (KW) and annual energy (KWH) savings reasonably achievable in the residential and commercial/industrial classes through demand-side management. Each utility must also file demand-side management goals developed under two scenarios; one seenario that includes potential demand-side management programs that pass the Participant and Rate Impact Measure Tests, and one scenario that includes potential demand-side management programs that pass the Participant and Total Resource Cost Tests found in the Cost Effectiveness Manual for Demand Side Management Programs and Self Service Wheeling Proposals, and one scenario that includes potential demand-side management programs that pass the Participant and the Utility/Program Administrator Cost Test. Rule 25-17.008, F.A.C. Each utility's goal projections must be based on the utility's most recent planning process and must shall reflect the annual KW and KWH savings, and program costs, over a ten-year period,

1	itom potential demand-side management programs with consideration of overlapping
2	measures, rebound effects, free riders, interactions with building codes and appliance
3	efficiency standards, and the utility's latest monitoring and evaluation of conservation
4	programs and measures. Consideration of overlapping measures, rebound effects, free riders,
5	interactions with building codes and appliance efficiency standards must be based on a
6	transparent, evidence-based methodology that is consistent with industry standard practices,
7	and must address the extent to which such eventualities may be accounted for within the
8	utility's assumptions for naturally-occurring energy efficiency adoption outside of utility-
9	administered programs. Each utility must also consider strategies to mitigate excessive free
10	ridership during program planning. Each utility's projections shall be based upon an
11	assessment of, at a minimum, the following market segments and major end-use categories.
12	Residential Market Segment:
13	(Existing Homes and New Construction should be separately evaluated) Major End-Use
14	Category
15	(a) Building-Envelope Efficiencies.
16	(b) Cooling and Heating Efficiencies.
17	(c) Water Heating Systems.
18	(d) Appliance Efficiencies.
19	(e) Peakload Shaving.
20	(f) Solar Energy and Renewable Energy Sources.
21	(g) Renewable/Natural gas substitutes for electricity.
22	(h) Other.
23	Commercial/Industrial Market Segment:
24	(Existing Facilities and New Construction should be separately evaluated) Major End-Use
25	Category
- 1	

1	(i) Building Envelope Efficiencies.
2	(j) HVAC Systems.
3	(k) Lighting Efficiencies.
4	(1) Appliance Efficiencies.
5	(m) Power Equipment/Motor Efficiency.
6	(n) Peak Load Shaving.
7	(o) Water Heating.
8	(p) Refrigeration Equipment.
9	(q) Freezing Equipment.
10	(r) Solar Energy and Renewable Energy Sources.
11	(s) Renewable/Natural Gas substitutes for electricity.
12	(t) High Thermal Efficient Self Service Cogeneration.
13	(u) Other.
14	(4) Within 90 days of a final order establishing or modifying goals, each utility must
15	file its demand-side management plan that includes the programs to meet the approved goals,
16	along with program administrative standards that include a statement of the policies and
17	procedures detailing the operation and administration of each program. or such longer period
18	as approved by the Commission, each utility shall submit for Commission approval a demand
19	side management plan designed to meet the utility's approved goals. The following
20	information must shall be filed submitted for each demand-side management program
21	included in the utility's demand-side management plan for a ten-year projected horizon
22	period:
23	(a) The program name;
24	(b) The program start date;
25	(c) A statement of the policies and procedures detailing the operation and

1	administration of the program;
2	(c) (d) The total number of customers, or other appropriate unit of measure, in each
3	class of customer (i.e. residential, commercial, industrial, etc.) for each <u>calendar</u> year in the
4	planning horizon;
5	(d) (e) The total number of eligible customers, or other appropriate unit of measure, in
6	each class of customers (i.e., residential, commercial, industrial, etc.) for each <u>calendar</u> year i
7	the planning horizon;
8	(e) (f) An estimate of the annual number of customers, or other appropriate unit of
9	measure, in each class of customers projected to participate in the program for each calendar
10	year of the planning horizon, including a description of how the estimate was derived;
11	(f) (g) The cumulative penetration levels of the program by calendar year calculated a
12	the percentage of projected cumulative participating customers, or appropriate unit of
13	measure, by year to the total customers eligible to participate in the program;
14	(g) (h) Estimates on an appropriate unit of measure basis of the per customer and
15	program total annual KWH reduction, winter KW reduction, and summer KW reduction, both
16	at the customer meter and the generation level, attributable to the program. A summary of all
17	assumptions used in the estimates, and a list of measures within the program must will be
18	included;
19	(h) (i) A methodology for measuring actual KW kilowatt and KWH kilowatt-hour
20	savings achieved from each program, including a description of research design,
21	instrumentation, use of control groups, and other details sufficient to ensure that results are
22	valid;
23	(i) (j) An estimate of the cost-effectiveness of the program using the cost-effectiveness
24	tests required pursuant this Rule and to Rule 25-17.008, F.A.C. If the Commission finds that a
25	utility's conservation plan has not met or will not meet its goals, the Commission may require
	CODING: Words <u>underlined</u> are additions; words in struck through type are deletions from existing law. Red words that are <u>double underlined</u> are AEE's additions; words in double struck through type are deletions from existing law.

•	and army to modify its proposed programs of adopt additional programs and submit its plans
2	for approval.
3	(j) An estimate of the annual amount to be recovered through the energy conservation
4	cost recovery clause for each calendar year in the planning horizon.
5	(5) The Commission may, on its own motion or on a petition by a substantially
6	affected person or a utility, initiate a proceeding to review and, if appropriate, modify the
7	goals. All modifications of the approved goals, plans, and programs will be on a prospective
8	basis.
9	(6) (5) Each utility must shall submit an annual report no later than March 1 of each
10	year summarizing its demand_side management plan and the total actual achieved results for
11	its approved demand_side management plan in the preceding calendar year. The report must
12	shall contain, at a minimum, a comparison of the achieved KW and KWH reductions with the
13	established Residential and Commercial/Industrial goals, and the following information for
14	each approved program:
15	(a) The name of the utility;
16	(b) The name of the program and program start date;
17	(c) The calendar year the report covers;
18	(d) The Ttotal number of customers, or other appropriate unit of measure, by customer
19	class for each calendar year of the planning horizon;
20	(e) The Ttotal number of customers, or other appropriate unit of measure, eligible to
21	participate in the program for each calendar year of the planning horizon;
22	(f) The Ftotal number of customers, or other appropriate unit of measure, projected to
23	participate in the program for each calendar year of the planning horizon;
24	(g) The potential cumulative penetration level of the program to date calculated as the
25	percentage of projected participating customers to date to the total eligible customers in the
İ	CODING: Words <u>underlined</u> are additions; words in struck through type are deletions from existing law. Red words that are <u>double underlined</u> are AEE's additions; words in double struck through type are deletions from existing law.

1	class;
2	(h) The actual number of program participants and the current cumulative number of
3	program participants;
4	(i) The actual cumulative penetration level of the program calculated as the percentage
5	of actual cumulative participating customers to the number of eligible customers in the class;
6	(j) A comparison of the actual cumulative penetration level of the program to the
7	potential cumulative penetration level of the program;
8	(k) A justification for any variances greater larger than 15% from for the annual goals
9	established by the Commission;
10	(l) Using on-going measurement and evaluation results the annual KWH reduction, the
11	winter KW reduction, and the summer KW reduction, both at the meter and the generation
12	level, per installation and program total, based on the utility's approved
13	measurement/evaluation plan;
14	(m) The per installation cost and the total program cost of the utility;
15	(n) The net benefits for measures installed during the reporting period, annualized over
16	the life of the program, as calculated by the following formula:
17	annual benefits = $B_{npv} \times d/[1 - (1+d)^{-n}]$
18	where
19	B_{npv} = cumulative present value of the net benefits over the life of the program for measures
20	installed during the reporting period.
21	D = discount rate (utility's after tax cost of capital).
22	N = life of the program.
23	Rulemaking Authority <u>350.127(2).</u> 366.05(1) , 366.82(1) (4) FS. Law Implemented 366.82 (1)
24	(4) FS. History–New 4-30-93, Amended
25	