

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Commission review of numeric conservation goals (Florida Power & Light Company).	DOCKET NO. 130199-EI
In re: Commission review of numeric conservation goals (Duke Energy Florida, Inc.).	DOCKET NO. 130200-EI
In re: Commission review of numeric conservation goals (Tampa Electric Company).	DOCKET NO. 130201-EI
In re: Commission review of numeric conservation goals (Gulf Power Company).	DOCKET NO. 130202-EI
In re: Commission review of numeric conservation goals (JEA).	DOCKET NO. 130203-EM
In re: Commission review of numeric conservation goals (Orlando Utilities Commission).	DOCKET NO. 130204-EM
In re: Commission review of numeric conservation goals (Florida Public Utilities Company).	DOCKET NO. 130205-EI
	Filed: September 30, 2014

SIERRA CLUB’S POST-HEARING BRIEF
AND STATEMENT OF ISSUES AND POSITIONS

1. Introduction

On behalf of its more than 28,000 Florida members, Sierra Club maintains that the Commission should set goals to ramp up the state’s major utilities’ annual energy savings to equal at least one percent of their retail sales by 2019 or earlier as the Southern Alliance for Clean Energy has proposed (Ramp-Up Goals). The record supports this ramp-up in energy efficiency investments because it is the fastest, safest, lowest-cost, lowest-risk way to meet Florida’s electric needs.

“[T]here’s no question that customers would benefit from the Sierra Club goals in terms of reduced electricity cost, increased customer participation, reduced bills, and reduced risk.” Tr. 1220 (Woolf).

“...the more DSM¹ you do, the more you lower costs....” Tr. 1492 (Sim).

¹ Throughout this proceeding, expert witnesses refer interchangeably to “DSM,” “demand-side management,” and “energy efficiency measures” and “energy efficiency programs.”

“*[Our programs] have resulted in customer energy savings of over \$1.2 billion dollars through 2011 and more than 15,000 GWh in energy consumption with demand savings of over 1645 MW effectively eliminating approximately 18 peaking power plants.*” Tr. 485 (Duff).

“*[O]ne can ramp up DSM and put it on your system faster than one can do generally a new generating unit.*” Tr. 1460 (Sim).

Indeed, Florida Power and Light Company’s own witness testified that electric billpayers will save more money on their bills through a ramp-up in efficiency investments. Tr. 1492 (Sim) (“participants will certainly benefit the more DSM you do”); see also Tr. 1179-80 (Woolf) (discussing FPL’s forecasts that as much as 70% of residential customers and 100% of commercial customers will participate in even the company’s current programs). The savings stem from efficiency programs deferring the need for higher-cost, higher-risk conventional generation, distribution, and transmission, because these supply-side projects account for most of the revenue requirements recovered by the utilities from Florida’s electric billpayers. Tr. 1174 (Woolf). FPL’s witness put it this way: “I’m happy to state that the revenue requirements will be lower under the SACE plan [i.e., the Ramp-Up Goals] than under the FPL plan for *virtually every year* after the first few...” Tr. 1487 (Sim), see also, Tr. 1119 (Woolf) (“Efficiency resources reduce electric system costs and thereby reduce average customer bills.”).

Increasing energy efficiency provides other benefits beyond saving participant and non-participants money on their electric bills. Tr. 1144 (Woolf) (“There is a wide range of non-energy benefits associated with DSM programs.”). These non-energy benefits—including local economy growth, local job growth, and water savings—make efficiency a bargain and the Ramp-Up Goals good policy for Florida. Tr. 1191-92, 12216 (Woolf) (recommending Ramp-Up Goals).

It is for these reasons that so many other states have rapidly and profitably increased their energy efficiency investments. Tr. 1182 (Woolf Dir. Fig. 6.2) (listing 33 states with more annual energy savings relative to retail sales than Florida). For example, last year the Arkansas Public Service Commission set goals that require electric utilities in that state to save 0.9 percent of annual retail sales by 2015. Arkansas Public Service Commission, Order No. 7, Docket No. 13-002-U (Sept. 9, 2013). Florida is now a laggard when it comes to energy efficiency investments. Tr. 1191 (Woolf) (citing high performing states with energy savings goals that are *more than 100 times* greater than FPL’s proposed goals.)

There is absolutely no reason why Florida should be lagging so far behind other states on energy efficiency investments. It is undisputed that the Ramp-Up Goals are achievable based on Florida’s abundant energy efficiency potential. All Florida-specific potential studies and analyses by Sierra Club and SACE’s experts prove this. Tr. 1154-55 (Woolf Dir. Table 4.1) (summarizing utilities’ own estimates that technically more than 30 percent of the sales in their services areas could be met through energy efficiency). Moreover, Gulf Power Company achieved 0.9 percent savings of annual retail sales in 2013, years before the Ramp-Up Goals would require the other utilities to match that. Tr. 1195-96 (Woolf). Even Tampa Electric Company’s witness testified: “All of us, but specifically Tampa Electric have programs to ramp that up in order to get to a level that would begin to achieve the goals, whatever those proposed goals may be, is not going to take that long.”

Notably, the utilities' market data indicate that less than half of Floridian homes are equipped with low-cost efficiency measures, such as low-flow faucets and efficient light bulbs. Ex. 182 (2013 Residential End-Use Study – Florida Results by Duke Energy). And of the homes that do have energy efficiency measures, few have very deep penetration for basic savings measures such as efficient light bulbs. Id.

In the face of this overwhelming evidence of the added savings and wide ranging benefits that ramped-up efficiency investments would provide to Florida as a whole, and to electric billpayers in particular, the utilities would “simply throttle back” their energy efficiency investments—while asking for approval of numerous, far more expensive and risky expenditures in centralized power projects. Tr. 1465, 1478-79 (Sim) (confirming FPL's plans to build new gas and nuclear units), see also Borsch (“we look regularly at the option of building new nuclear generation”).

In support of their rollback, the utilities offer rigged analyses that purport to show that energy efficiency is not cost-effective. The utilities have rigged their analyses in three principle ways. First, they have applied the wrong screening test that only considers whether the utilities can keep their revenues constant in the face of energy savings that tend to reduce their revenues—the RIM test. Most states do not use the RIM test as the primary cost-effectiveness screen for efficiency; they use the Total Resource Cost (“TRC”) test or the Societal Cost test (“SCT”). Ex. 87 at 17. Indeed, the utilities' primary reliance on the RIM test clearly conflicts with FEECA's mandate that the Commission consider energy efficiency cost-effectiveness in terms of “the general body of ratepayers *as a whole*” and “customers participating in the measure.” Section 366.82(3), F.S.

Second, even in applying the RIM test, the utilities have a completely arbitrary practice of excluding any efficiency measures that pay for themselves (through bill savings) in two years or less. Indeed, the utilities' witnesses testified that these “two year measures” are precisely the measures that are the most cost effective, including basic measures like efficient light bulbs, hot water heater wraps, and faucet aerators that reduce the amount of water used and thus the amount of water that needs to be heated. Tr. 1483 (Sim), Tr. 1611-12 (Bryant), Tr. 1646-48 (Floyd), compare Ex.36, 37, 38 (showing DEF excluded the vast majority of residential measures studied). And yet every utility witness who was asked acknowledged that there was absolutely no evidence to support excluding the two-year measures, despite the utilities' claims that people will adopt the measures on their own and so programs would amount to giveaways to “freeriders”:

“Yes, from a customer's perspective they would be the most cost-effective measures.” Tr. 1648 (Floyd)

“Now, do we know whether they implemented them or not? No, we do not.” Tr. 1614 (Bryant)

“I don't have any empirical support for that other than just the logic of it being a [sic] reasonable -- that those kinds of measures having [sic] a reasonable payback to the customer.” Tr. 1647 (Floyd).

Indeed, while the utilities admit that they have no evidence to support the two-year payback exclusion, there is abundant evidence showing the opposite—these measures are not being adopted widely without programs to support them. Ex. 1905, Tr. 548 (Duff).

Third, the utilities padded the costs of measures to inflate how much they really cost. For example, FPL's witness testified that for a simple faucet aerator the company counted \$10 equipment costs but \$108 administrative costs. Tr. 417, 419 (Sim). To put this into context, Witness Mims testified that historic efficiency program costs reported by the utilities are significantly above the average cost of comparable programs. Tr. 969 (Mims). Further, she noted, "[t]he Utilities inclusion of administrative costs and maximum incentive levels in their proposed goals continues this trend of inflated costs." Id.

The Commission should reject the utilities' proposals for two additional reasons. First, the utilities' resource modeling practices fail to optimize the combination of demand-side and supply-side resources, which leads to arbitrary, extremely low savings goals and needless exposure to spiraling supply-side costs and risks. Tr. 1115, 1119 (Woolf).

Second, energy efficiency investments are particularly important over the 2015-2024 goal-setting period that the Commission is considering in these consolidated dockets. Energy efficiency—with its inherent low cost, low risk and high flexibility—is the best resource to meet the needs identified in the Commission's annual resource planning reports—and to hedge against the increasing costs and risks associated with supply-side options. 2012 Ten-Year Site Plan Review at 39, 2013 Ten-Year Site Plan Review at 5.

This is all the more true given the rapidly changing nature of today's energy markets, with low natural gas prices, increasing coal prices, rapidly dropping renewable energy options and a regulatory framework that is also evolving to include consideration and regulation of greenhouse gases. Indeed, not only does Florida state law require consideration of greenhouse gas regulations, FEECA Section 366.82(3)(d), in under two years Florida must develop and file with the U.S. Environmental Protection Agency its proposal for reducing the carbon intensity of the existing fossil-fuel burning power plants through the Clean Power Plan—of which energy efficiency is a key part. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed Reg. 34830 (June 18, 2014). As Florida's biggest utility, Florida Power & Light Company has testified, efficiency can meet Florida's electric demand the fastest, Tr. 1460, 1467 (Sim), and gives resource planners more flexibility than supply side options. Tr. 1464-65 (Sim) ("One of the initial big selling points regarding DSM was the flexibility it offered to utilities ... This flexibility attribute of DSM still exists today. ")

In short, the Commission should adopt Ramp-Up Goals in this docket. Moreover, given the clear flaws in the utilities' proposals in this docket, the Commission should take several steps to improve the goal-setting process going forward:

- 1) Re-open the FEECA docket in 2015 to align the utilities' savings goals with Florida's compliance obligations under new federal greenhouse gas regulations. Given the June 30, 2016, due date for Florida's compliance plan, the Commission should revisit goals no later the summer of 2015,

with updated energy efficiency studies being conducted in the meantime. Notably, the utilities did not oppose this at the hearing. Tr. 1611 (Bryant), Tr. 1643 (Floyd), Tr. 1474 (Sim), Tr. 1540-41 (Borsch).

- 2) Specify that in future studies the proper screening tests is a robust Total Resource Cost test because it is the truest to FEECA cost-effectiveness criteria. Also specify that this test must include (a) customer incentives provided by a utility, (b) reasonable estimates of participant non-energy benefits, and (c) reasonable estimates of greenhouse gas compliance costs in the base case analysis. Tr. 1119 (Woolf).
- 3) Reject the RIM and two-year payback tests as the primary cost-effectiveness tests for efficiency measures. Id.
- 4) Require the utilities to (a) present the results of the Utility Cost test, which is the single best test for identifying the impacts on utility revenue requirements and thus the impacts on average customer bills; and (b) properly analyze the rate, bill and participation impacts. Id.
- 5) For future resource planning and savings goal-setting purposes, require the utilities to (a) truly optimize the combination of demand-side and supply-side resources rather than “freezing” supply side plans and comparing them to a predetermined amount of efficiency measures and (b) use reasonable estimates of free-rider impacts from measurement and verification studies, and not the overly simplistic two-year payback criterion. Tr. 1119 (Woolf).
- 6) To set demand-side renewable goals, open a separate docket to investigate the effectiveness of solar rebate programs and the role of utility-owned solar photovoltaic (PV) systems. Tr. 1227-28 (Woolf). Require the utilities to investigate opportunities to update their PV marketing and incentive approaches so as to (a) pay as little as possible to encourage adoption of PV in light of declining PV costs, and (b) install as much PV as possible with the limited funding available for this purpose. Tr. 1118 (Woolf).

2. Regulatory Background

State and federal statutes and regulations apply to the demand-side goals at issue here. This section summarizes them and the table below shows the relevant, overlapping timelines for the Commission’s FEECA goal-setting and EPA’s proposed deadline for submission of state implementation plans under its carbon pollution standards for existing electric generation units, known as the Clean Power Plan.

	Decision-making deadline	Compliance period
FEECA goal-setting	December 2014 with the option to reopen the FEECA docket and update goals any time at Commission’s discretion	2015-2024
State implementation plans under the Clean Power Plan	June 30, 2016 – State Implementation Plan due; initial State Implementation Plan due for states that obtained an extension	2020-2030 EPA estimates that Florida should start ramping-up efficiency programs in 2017 in order to reach 1.5 percent of annual retail sales by 2024

a. Florida Statutes And Regulations Governing Demand-Side Programs

In these consolidated FEECA goal-setting dockets, by the end of 2014 the Commission is required to set energy savings goals for the next ten-year period, 2015 to 2024.

The Commission regulates public electric utilities and has the power to set rates that are fair and reasonable. Sections 366.03, 366.04, and 366.05, F.S. At least every five years, the Florida Energy Efficiency and Conservation Act, Sections 366.80-366.85, 403.519, F.S. (“FEECA”), requires the Commission to set ten-year goals years for the level of savings to be achieved by the major utilities, FPL, DEF, TECO, Gulf, JEA, OUC, and FPUC (“the Utilities”). The savings come from public investments in the Utilities’ demand-side programs. *Id.* The savings can be measured in terms of energy or capacity reductions. Section 366.82(2), F.S. The programs include: energy efficiency, conservation, demand response (also called load management), and demand-side renewable energy systems. *Id.*

To set goals that will “protect the health, prosperity, and general welfare of the state and its citizens,” Section 366.81, F.S., FEECA requires the Commission to evaluate the “full technical potential of all available demand-side and supply-side conservation and efficiency measures,” and consider four mandatory criteria:

- 1) the costs and benefits to customers participating in the measure;
- 2) the costs and benefits to the general body of ratepayers as a whole, including utility incentives and participant contributions;
- 3) the need for incentives to promote both customer-owned and utility-owned energy efficiency and demand-side renewable energy systems; and
- 4) the costs imposed by state and federal regulations on the emission of greenhouse gases.

Section 366.82(3), F.S. In addition, the Legislature directed FEECA “to be liberally construed in order to meet the complex problems of reducing and controlling the growth rates of electric consumption and reducing the growth rates of weather-sensitive peak demand; increasing the overall efficiency and cost-effectiveness of electricity and natural gas production and use; encouraging further development of demand-side renewable energy systems; and conserving expensive resources, particularly petroleum fuels.” Section 366.81, F.S.

The Commission’s implementing rules add guidance “to enhance job-producing economic growth by lowering energy costs from what they otherwise would be if these goals were not achieved.” Rule 25-17.001(7), F.A.C. These rules incorporate by reference the Commission’s Cost-Effectiveness Manual, which sets out the methodologies and tests for estimating efficiency program cost-effectiveness, as well as the minimum filing requirements for utilities reporting cost-effectiveness data. Rule 25-17.008, F.A.C. The Manual requires utilities to report the results of three cost-effectiveness tests: the Participants test, the Rate Impact Measure (“RIM”) test, and the Total Resource Cost (TRC) test. Florida Public Service Commission, *Cost-Effectiveness Manual for Demand-Side Management Programs and Self-Service Wheeling Proposals*, July 17, 1991. Each utility must also propose numerical goals in proceedings, like this one, that “reflect consideration of overlapping measures, rebound effects, free riders, interactions with building codes and appliance efficiency standards, and the utility’s latest monitoring and evaluation of conservation programs and measures.” Rule 25-17.0021, F.A.C. In turn, the Commission’s goals “shall be based on an estimate of the total cost-effective kilowatt and kilowatt-hour savings reasonably achievable through demand-side management in each utility’s service area.” *Id.*

Finally, it is the State’s policy to “consider, in its decisionmaking, the social, economic, and environmental impacts of energy-related activities, including the whole-life-cycle impacts of any potential energy use choices, so that detrimental effects of these activities are understood and **minimized.**” [emphasis added] Section 377.601(2)(j), F.S.

a. EPA’s Carbon Pollution Standards For Existing Electric Generating Units

On June 2, 2014, the US Environmental Protection Agency issued the Clean Power Plan (“CPP”), which proposes new carbon emission goals for existing power plants. In June 2015, EPA is due to finalize the CPP. Under the CPP as currently proposed, Florida will have only one year—to June 2016—to complete and submit to EPA Florida’s plan (or initial plan, if an extension is requested) for achieve its CPP target of 40 percent emission rate reduction from a 2012 baseline emissions rate of 1,238 lb/MWh, reaching a carbon emissions rate limit of 740 lb/MWh to be achieved by 2030.

The Clean Power Plan allows states to use various options to comply with the emission standards, including the implementation of energy efficiency and renewable resources. Consistent with the Commission’s December 13, 2013, comments to EPA, the Clean Power Plan grants every state, including Florida, the flexibility to design and adopt its own implementation plan for complying with federal guidelines. Letter, Ronald A. Brisé, Chairman, Florida Public Service Commission, to Janet McCabe, U.S. EPA (Dec. 13, 2013). While the state goals outlined in the Plan are based on EPA’s determination of the best system of emission reduction that has been adequately demonstrated at a reasonable cost, the Plan allows states to select the combination of building blocks or other emissions reduction measures that make most sense for each state to meet its goals, so long as these measures are equivalent to or more stringent than EPA’s emission guideline, and are enforceable, quantifiable, and verifiable. Accordingly, Florida can determine for itself which emissions reductions options are feasible and cost-effective.

Most relevant to this proceeding, for all states, including Florida, EPA has concluded that implementation of energy efficiency measures is achievable at reasonable costs and that Florida

can achieve incremental energy savings of 1.5 percent of annual retail sales by 2024. Clean Power Plan, Technical Support Document, State Goal Computation, Appendix 1, available at <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-technical-documents>. To reach the 1.5 percent savings level, EPA estimates that Florida needs to start ramping up energy efficiency programs by 2017. Id.

In short, the U.S. Environmental Protection Agency has proposed to finalize the Clean Power Plan in June 2015 and one year later, on June 30, 2016, require Florida to submit to EPA its (initial) CPP implementation plan, including the efficiency programs that Florida will use to achieve its 40 percent emission rate reduction.

3. The Commission Should Set Goals To Ramp Up The Utilities' Annual Energy Savings To Equal At Least One Percent Of Their Retail Sales By 2019 Or Earlier

a. Energy Efficiency Reduces Costs And Provides A Wide Range Of Benefits

The Commission should set goals to ramp up the Utilities' annual energy savings to equal at least one percent of retail sales in the Utilities' service areas by 2019, or earlier as the Southern Alliance for Clean Energy has proposed (Ramp-Up Goals). This level of investment in energy efficiency is supported by record evidence showing that energy efficiency: i) reduces participant and non-participant costs, ii) reduces total system costs, iii) addresses the need for customer incentives, iv) prepares for tighter pollution controls, including federal greenhouse gas regulations, and v) provides a wide range of benefits, including enhanced job growth and water savings.

i. The Ramp-Up Goals Will Reduce Total Costs For All Billpayers

Even the Utilities admit that ramping-up energy efficiency will reduce electricity costs for billpayers. Indeed, FPL's own analysis is that the Ramp-Up Goals lead to lower total costs than FPL's proposal. As FPL's witness testified at the hearing, when annual savings equal one percent of retail sales, electricity cost go down: "**virtually every year after the first few years.**" Tr. 1499 (Sim), Ex. 13, 148, 149. When asked again, FPL's witness reaffirmed that ramping up to this level of savings would drive total costs down:

"...the total cost, the total revenue requirement for the system will drop under the SACE plan[i.e., the Ramp-Up Goals]." Tr. 1492 (Sim)

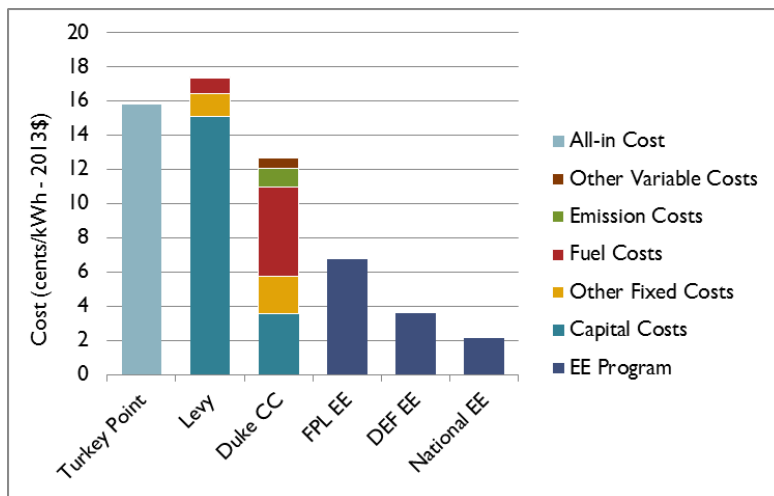
"...in general the more DSM you do, the more you lower costs...." Tr. 1492 (Sim)

Lower total costs are good for Floridians. They translate into lower average bills because Florida's total costs (or total bills) go down more than they would do if the Utilities did not implement energy efficiency programs. Tr. 1119 (Woolf). This is because energy efficiency helps avoid the cost of building new generation to replace or supplement old generation and to meet the load growth that would otherwise take place. And it is true even before accounting for efficiency's other distinct benefits, including: 1) deferring and avoiding transmission and

distribution, 2) reducing reserve margin requirements, 3) reducing line losses, and 4) non-energy benefits, Tr. 1177 (Woolf), as discussed in Section 3.a.#, below.

Sierra Club has also shown that energy efficiency generally costs less than half as much as conventional power plants. Tr. 1116-17 (Woolf). On a levelized basis, energy efficiency costs as little as 2.13 cents/kWh (2013 national average) and up to 6-7 cents/kWh (FPL’s reported costs), whereas new gas and nuclear power plants cost 16-17 cents/kWh. Tr. 1117 (Woolf Dir. Figure 5.2, reprinted below). Again, efficiency beats power plants by even more when efficiency’s distinct benefits are taken into account.

Levelized Cost of Energy Efficiency versus Conventional Generation (Woolf Direct Testimony, Figure 5.2)



Industry experts regularly turn to “Levelized Cost of Entry” (“LCOE”) comparisons in instances, like this, where they lack access to reliable resource modeling results. In fact, government agencies such as the U.S. Energy Information Administration and the California Energy Commission, investment firms such as Lazard, and independent energy experts at the Union of Concerned Scientists generate and rely on such comparisons as needed. Ex.83 (Note 10).

Even the Commission’s own independent study of energy efficiency that it retained the University of Florida to undertake showed that the Utilities’ demand-side programs are in the public interest (i.e., good for Florida as a whole), and that Floridians have gained a “positive net benefit” from the programs. Commission’s Independent FEECA Study at 9. The authors included state and national public utility experts from the University of Florida’s Public Utility Research Center, the University of Florida’s Program for Resource Efficient Communities, and the National Regulatory Research Institute. The Study has even been cited favorably by the Utilities in this proceeding. Tr. 486-87 (Duff).

More specifically, the study found that Floridians gained a “positive net benefit” on their 5.4 billion dollars investment in demand-side programs through the time when the study issued in December 2012. Commission’s Independent FEECA Study at 9. Moreover, the study concluded that investing at least 2 percent of Florida’s electric bills into energy efficiency compared favorably to “to the volatility of fuel and construction prices.” Id. at 10. Therefore, the

Commission’s study corroborates all of the evidence in the record showing that efficiency programs reduce total costs with modest rate impacts, and the programs are in the public interest.

Moreover, the study was conducted at a time when investments in energy efficiency in Florida were much higher— “in line with costs of conservation programs in other states,” *id.*—since then Florida has rolled back its energy efficiency programs and now the Utilities propose to “throttle back” even further, Tr. 1465 (Sim), unnecessarily putting upward pressure on Floridian’s bills that energy efficiency could avoid.

i. Efficiency Reduces Costs For Participants As Well As Non-Participants

The record shows that efficiency programs are good for all customers for four principal reasons: (a) the rate impact on all customers is small, (b) participants are always better off, (c) participants only need to install a few efficiency measures to be better off, and (d) increasing participation addresses the equity issue better than cutting the programs.

Witness Woolf offered this poignant example of why all customers are better off and face relatively modest rates under the Ramp-Up Goals: If FPL completes the construction of Turkey Point Nuclear Units 6 and 7, rates will need to be increased by much more than any potential rate impacts from efficiency programs that would offset the potential energy needs for those units. Tr. 1164 (Woolf). However, FPL’s RIM-based proposed savings goal entirely omits the avoidable costs and other benefits of postponing Turkey Point Units 6 and 7—one of the principal economic benefits of energy efficiency. Tr. 1166-67 (Woolf). In other words, it may be true that FPL’s proposal will save customers from modest rate impacts in the near term, but even FPL expects its proposal to prove more costly “virtually every year after the first few years.” Tr. 1499 (Sim). Higher costs under FPL’s RIM-based proposal means higher average bills for everyone.

Energy efficiency clearly reduces costs for participants; the Utilities’ admit this fact. Tr. 1492 (Sim) (“participants will certainly benefit the more DSM you do”). The underlying reason is that efficiency measures are generally long-lasting and save energy across all times when the end-use equipment is in operation. Galligan et al., *Evaluation of Florida’s Energy Efficiency and Conservation Act* (Dec. 2012) at 173, available at [http://www.psc.state.fl.us/utilities/electricgas/energy law/ FEECA.pdf](http://www.psc.state.fl.us/utilities/electricgas/energy%20law/FEECA.pdf) (“Commission’s Independent FEECA Study”). As a result, participant savings offset any rate impacts that may arise as the Utilities recover program costs through the Energy Conservation Cost Recovery clause. Tr. 1118, 1196 (Woolf). In 2010 alone, FEECA program participants realized nearly \$25 million in energy bill savings. Commission’s Independent FEECA Study at 98. Moreover, even the Utilities’ forecasts show that their current, middling programs could achieve savings for as much as 70% of residential customers and 100% of commercial customers will participate in even the company’s current programs. Tr. 1179-80 (Woolf)

Non-participants have and will continue to save as a result of efficiency programs, too. Raising public awareness of simple savings measures is one of the mainstays of efficiency programs. Indeed, this is why the Utilities offer their residential and commercial customers educational audits:

Q: Is public education part of your audit efforts?

A: That's one of the purposes of an audit that we're required by statute to do.

Ex. 1030 (Bryant Dep.). Regardless of whether the customers go on to participate in efficiency programs, they learn ways to save energy and money in their homes and businesses. Similarly, educating consumers is part of the Commission's mission for good reason—learning about energy choices helps Floridian families and businesses save energy and money. FPSC, Mission and Objectives, available at <http://www.psc.state.fl.us/about/mission.aspx>.

For all these reasons, efficiency programs are good for every Floridian who pay electric bills. To further address concerns about equity, Witness Woolf's recommended program design principles that help increase participation and ensure that all customers have access to programs that help them save energy and money. Tr. 1140-41 (Woolf).

ii. Efficiency Programs Address The Needs For Customer Incentives

Efficiency programs help overcome barriers to customers adopting efficiency measures that will help them save money, thereby helping the whole electric system save money. Tr. 1140 (Woolf), Commission's Independent FEECA Study at 130. Witness Woolf identified these barriers and submitted expert studies that verify the existence of these barriers everywhere; Florida is no exception. Tr. 1217, 1159, Ex. 89; Ex. 137 (Response 2). The barriers include lack of capital, lack of "credit-worthiness" which frequently impedes small business owners from borrowing (i.e., accessing capital) at any price, and a lack of awareness of energy efficiency opportunities, among other things. Id.

The incentives and technical assistance provided through efficiency programs are needed for residential and small business customers to adopt the optimal levels of energy efficiency to drive savings. Ex. 89; Ex. 137 (Response 2). It is particularly important to provide incentives to low-income customers, fixed-income customers, and gap customers who are just over the poverty line, as well as new home owners who are fully extended with new credit obligations. They face the highest barriers to adopting even basic, low-cost, short-payback measures. Tr. 1160, 1217 (Woolf), see also Tr. 1317 (Koch) (no current FPL programs targeting gap customers).

The Utilities' own data demonstrate the same lack of participation in energy efficiency measures in Florida—and there is no other evidence in the record to the contrary. According to the Utilities' market data, less than half of Floridian homes are equipped with even the most basic of low-cost energy efficiency measures, such as low-flow faucets and efficient light bulbs. Ex. 182. These are measures that are indisputably cost effective and save bill payers money, but they are not being pursued by billpayers despite the fact that a rational economic actor would install them. Stated another way, penetration of energy efficiency measures throughout Florida's homes and businesses simply is not occurring at levels that are justified by the economics. Barriers do in fact exist in Florida to the optimal adoption of energy efficiency measures, just as numerous studies from across the country have found to be the case in other states, and just as the legislature understood when they enacted FEECA and directed the Commission to consider what levels of incentives are necessary to drive an optimal level of energy efficiency in Florida. If the

Commission is to comply with FEECA's mandate, it must adopt higher energy efficiency goals and "encourage" programs whose incentives overcome barriers and increase the penetration of energy efficiency measures to optimal levels. The Commission's own independent study concludes that it is entirely appropriate for the Utilities to help promote energy efficiency through programs offering incentives and technical assistance. Commission's Independent FEECA Study at 10.

iii. Efficiency Prepares Florida For Tighter Pollution Controls, Including Federal Greenhouse Gas Regulations

Energy efficiency reduces all types of power sector pollution, thereby helping Florida prepare for tighter pollution controls for this sector. Tr. 1141-42 (Wolf). The stakes are high: In 2013, FPL, DEF, TECO, Gulf, and OUC reported regulatory compliance cost estimates for the then-existing coal, oil, and natural gas-burning units between 2.5 and 5.5 billion dollars. 2013 Ten-Year Site Plan Review, at 28. Notably, these estimates increased from the previous year, which ranged between 2 and 4.8 billion dollars. 2012 Ten-Year Site Plan Review, at 42. They also do not include: (1) all applicable environmental standards (for example, National Ambient Air Quality Standards for sulfur dioxide and ozone, and Effluent Limitation Guidelines), (2) all of the conventional generation (for example, nuclear generation) that is subject to tightening environmental and safety standards, or (3) the U.S. Environmental Protection Agency's federal greenhouse gas regulations. Fortunately, energy efficiency can help Florida cost-effectively address the full suite of environmental compliance obligations for the power sector. Tr. 1141-42.

Of particular importance to Florida's resource planning is EPA's Clean Power Plan ("CPP"). As discussed above, in June of 2015 EPA is due to finalize its greenhouse gas regulations, the CPP. **Under the CPP as currently proposed, Florida will have only one year—to June 2016—to complete and submit to EPA its (initial) CPP implementation plan for achieving a 40 percent emission rate reduction from a 2012 baseline emissions rate of 1,238 lb/MWh, reaching a carbon emissions rate limit of 740 lb/MWh to be achieved by 2030.**

While there are a number of paths that Florida can take to comply with the CPP, energy efficiency is undisputedly the lowest cost, lowest risk and most flexible option, far more so than building out yet more gas, or risking more money on nuclear power for example. Witness Wolf cited leading studies showing this to be the case. Ex. 83. Ex. 85, Ex. 90. Indeed, EPA's Regulatory Impact Analysis for the Clean Power Plan cites two studies finding that demand-side efficiency improvements can be realized at less cost than the savings from avoided power generation. U.S. EPA, Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants 3-3, 3-6-3-7 (June 2014) ("RIA") at 2-14, available at www.epa.gov/ttn/ecas/regdata/RIAs/111dproposalRIAFinal0602.pdf. Even EPA's low estimates of energy efficiency costs have been criticized as too high.² On average, energy efficiency programs now cost 2.8 cents per kilowatt hour (kWh)—one-half to one-third as much as supply-side alternatives.³

² See Maggie Molina, Am. Council for an Energy-Efficient Economy, *The Best Value for America's Dollar: A National Review of the Cost of Utility Energy Efficiency Programs* (Mar. 2014) at 34-37, available at aceee.org/research-report/u1402; Megan A. Billingsley, et al., Lawrence Berkeley Nat'l Lab.,

As the Commission concludes these FEECA goal-setting dockets, it should position Florida to comply with the CPP and other regulations in the lowest-risk, lowest-cost manner possible by adopting the Ramp-Up Goals now. In fact, these goals are modest and understate the optimal level of energy efficiency in the state: the U.S. Environmental Protection Agency found that that implementation of energy efficiency measures is achievable at reasonable costs and that Florida can achieve incremental energy savings of 1.5 percent of annual retail sales by 2024. EPA also estimates that Florida needs to start ramping up energy savings at least by 2017 to meet the 1.5 percent savings level by 2024. Adopting the Utilities proposal to throttle back energy efficiency would be profoundly unwise.

iv. Energy Efficiency Provides A Wide Range Of Non-Energy Benefits That Must Be Properly Accounted For And Included Efficiency Cost-Effectiveness Screening

In addition to saving money, energy efficiency provides Florida as a whole with important non-energy benefits. Tr. 1144-47, 1202. More particularly, the record indicates that energy efficiency drives local job growth, increased productivity for homes and businesses, and water savings benefits that far exceed the equivalent benefits if that same money were expended on new conventional generation and distribution. The benefits are important to Florida, as the Commission's Independent FEECA Study averred. Commission's Independent FEECA Study at 170 ("creating jobs and stimulating the economy are important" to FEECA stakeholders). The study identified a wide range of non-energy benefits that are observed everywhere, including in Florida, from efficiency programs:

...improved financial security through reduced energy cost burden; more complete information for decision making about energy-efficiency investments; increased property values; improved comfort; and improved health. Some of the indirect benefits for program participants that accrue predominantly to commercial customers include: increased productivity, primarily due to improved comfort and health of employees; higher employee morale, reduced turnover and easier recruitment; rental property tenant satisfaction and retention; and creation of an environmentally-conscious workplace with the potential for spillovers of conservation and efficiency behavior.

Id. at 98. The authors underscore that fresh water is a critical resource that "is overlooked in state energy policies." Id. at 103.

Indeed, one of the fatal flaws with the Utilities' proposed roll back of efficiency programs is that they have overlooked the programs' many non-energy benefits. Tr. 1115 (Wolf), see also Tr. 1257 (Deason) (referencing without citing more than 20 years old Commission decision not to consider non-energy benefits party because the utilities had not quantified them in the record).

The Program Administrator Cost of Saved Energy for Utility Customer-Funded Energy Efficiency Programs 52–57 (Mar. 2014), available at <http://emp.lbl.gov/sites/all/files/lbnl-6595e.pdf>.

³ Molina at 39.

Witness Woolf testified that resource planners across the country increasingly strive to consider non-energy benefits when they set energy savings goals targets. He provided reports on how to quantify these benefits, including references to states that have included them in their resource planning. Tr. 1122-23, 1144-46 (Woolf), Ex. 84, Ex. 86. Notably, there is no evidence in the record that this quantification cannot be done in Florida, only that the Utilities do not want to do so. FPL's witness even testified that studying non-energy benefits is "impossible" and "non-quantifiable." Tr. 1257 (Deason), Tr. 1393 (Sim). The record demonstrates that industry practice is to the contrary. Tr. 1122-23, 1144-46 (Woolf), Ex. 84, Ex. 86. Again, Florida is an outlier, Tr. 1182, and rolling back efficiency programs threatens to make Florida one of the worst performers on efficiency savings and its outstanding benefits.

- i. The Total Resource Cost Test Is The Best Cost-Effectiveness Test To Meet The FEECA Mandatory Criterion In Section 366.82(3)(B) For Savings Goals To Consider The "Costs And Benefits To The General Body Of Ratepayers As A Whole"

Proper cost-effectiveness screening, including reasonable estimates of non-energy benefits and reasonable estimates of greenhouse gas regulatory compliance costs, will help Florida realize the tremendous savings and benefits discussed above. The Total Resource Cost test is in fact the best test to indicate "costs and benefits to the general body of ratepayers as a whole" under FEECA Section 366.82(3)(b). The Utilities apply this test incorrectly by omitting customer incentives payments and non-energy benefits. Tr. 1115, 1136 (Woolf). However, the purpose of the TRC test is to include *all* costs and *all* benefits associated with efficiency programs, regardless of who pays them, which is why it is called the "Total Resource Cost" test. Tr. 1122-23, 1136 (Woolf).

To avoid any further confusion that leads to undervaluing efficiency programs, the Commission should clarify that the proper efficiency cost-effectiveness screening tests is the Total Resource Cost test. Further, the Commission should clarify that this test should include (a) customer incentives provided by a utility, (b) reasonable estimates of non-energy benefits, and (c) reasonable estimates of greenhouse gas compliance costs in the base case analysis.

- b. Efficiency Programs Have A Strategic Role To Play Over The Next Ten Years To Advance Demand-Side Resources To Hedge Against Supply-Side Costs And Risks.

The Commission and even the Utilities have identified a critical need to hedge against the increasing costs and risks of supply-side resources:

"With this continued emphasis on natural gas as its primary fuel, it is important that FPL continue to diversify its fuel portfolio from a supply standpoint, as well as mitigate volatility and price risk associated with the supply of natural gas."

Doc. No. 03828-14, FPL Petition for Approval of Gas Reserve Project Costs through the Fuel Clause (July 18, 2014).

"Although the Commission has cited the growing lack of fuel diversity within the State of Florida as a major strategic concern for the past several years, natural

gas is anticipated to remain the dominant fuel over the planning horizon. Excluding renewables, all new generation facilities planned within the State of Florida over the ten-year period are natural gas-fired units.” 2012 Ten-Year Site Plan Review, at 39, see also 2013 Ten-Year Site Plan Review, at 5, at 26 (observing similar trends).

FEECA and the Commission recognize—but somehow not the Utilities—that efficiency programs in particular can help hedge against supply-side costs and risks and meet Florida’s resource needs.

“...it is critical to utilize the most efficient and cost-effective demand-side renewable energy systems and conservation systems in order to protect the health, prosperity, and general welfare of the state and its citizens.” Section 366.81, F.S.

“The commission shall adopt appropriate goals for increasing the efficiency of energy consumption and increasing the development of demand-side renewable energy systems, specifically including goals designed to increase the conservation of expensive resources, such as petroleum fuels, to reduce and control the growth rates of electric consumption, to reduce the growth rates of weather-sensitive peak demand, and to encourage development of demand-side renewable energy resources.” Section 366.82(2), F.S.

“Florida’s utilities can efficiently serve their customers by offering demand-side management (DSM) and conservation programs designed to use fewer resources at lower cost.” 2013 Ten-Year Site Plan Review, at 1.

The Commission should comply with FEECA’s mandate and ramp-up savings goals to drive investments in efficiency programs that will help manage the risks of building out even the cheapest of supply-side fuels, natural gas.

- c. Efficiency Programs Can Help Flatten Load Growth, Displace Retiring Generation, And Defer The Costs And Risks Of Conventional Generation, Transmission, And Distribution Resources Generally

Even if correct, the Utilities’ forecasted 1.34 percent annual retail sales growth rate is within the range that efficiency measures can address.⁴ Gulf Power Company has already achieved 0.9

⁴ Florida is experiencing slow growth in electricity demand. Retail energy sales in 2012 were only 0.65 percent higher than in 2003. Growth rates continue to be much lower than the Utilities predicted. Certainly the recession contributed to inaccurate forecasts. However, the Commission has observed “a pattern of increasing error in retail sales forecasts,” with high overages from 2009 to 2013. The trend continued in 2014; forecasts needed a downward revision to reflect slower than expected growth. Still the Utilities predict annual growth rates will somehow rise to 1.34 percent (net energy for load (GWh)) between 2014 and 2023—more than twice the rate experienced between 2004 and 2013. In contrast, the

percent annual savings through its efficiency programs. Nearby Arkansas requires its electric utilities to achieve 0.9 percent savings by 2015, Arkansas Public Service Commission, Order No. 7, Docket No. 13-002-U (Sept. 9, 2013). This is entirely achievable; the largest Arkansas utility (Entergy) has already done so. Arkansas Public Service Commission, Docket No. 07-085-TF, Document No. 443, at 27 (Table 1.5.4), available at <http://www.apscservices.info/EEInfo/EEReports/Entergy%202013.pdf>. Other states require even more savings from their utility-sponsored energy efficiency programs—five (5) states require 2 percent annual savings, and twelve (12) states have either achieved 1.5 percent annual savings or require it by 2020.

Florida can and should match the leading states. Based on a “conservative approach,” As discussed above, EPA calculates that Florida could achieve 1.5 percent annual savings relative to sales by 2024. Numerous stakeholders—including Sierra Club on behalf of its over 29,000 Florida members and Advanced Energy Economy on behalf of over 1,000 businesses and organizations—have urged Florida to top this conservative level of savings in response to the Commission’s request for comments on the Clean Power Plan.

Notably, the Utilities agree that energy efficiency is the fastest way to meet Florida’s electric demand, and that efficiency provides more flexibility to resource planners than any supply side options. Nevertheless, they evade the overwhelming evidence showing that now is exactly the wrong time to “throttle back” efficiency programs. Tr. 1465 (Sim).

d. The Ramp-Up Goals Are Achievable Based On Florida’s Abundant Energy Efficiency Potential

There is a tremendous amount of evidence in the record that the Ramp-Up Goals are achievable based on Florida’s abundant energy efficiency potential. The 2009 Itron Technical Potential Study, the 2014 updates to the Study, and the analyses by Sierra Club and SACE’s experts show that these goals are well within the range that can be achieved. Not a single Utility disputes the achievability of these goals. Tr. 1154-55 (Woolf Dir. Table 4.1) (summarizing utilities’ own estimates that technically more than 30 percent of the sales in their services areas could be met through energy efficiency).

Moreover, as discussed immediately above, Gulf Power Company achieved 0.9 percent savings of its retail sales in 2013, several years before the other Utilities would need to match that under the Ramp-Up Goals. Tr. 1195, 96 (Woolf). Even Gulf’s Witness testified that the company ramped up quickly and raised no technical reason why the company could not save at even higher levels:

*“If you look at Gulf’s own history just in the last four years, I think **we demonstrated that we could ramp up very quickly.**”* Tr. 1639 (Floyd).

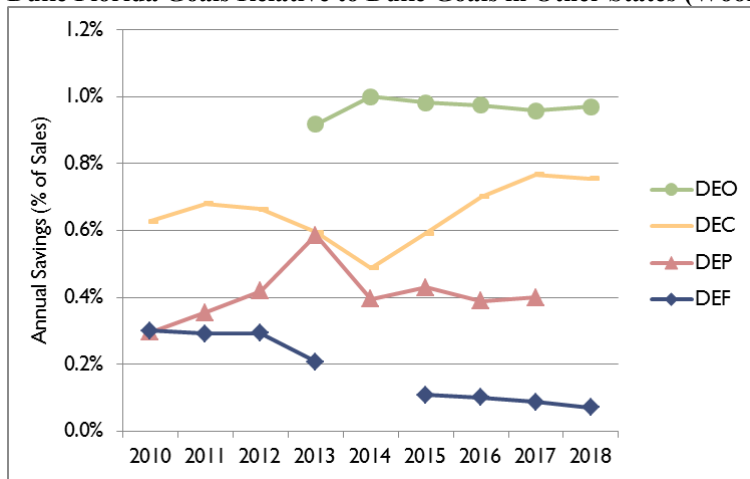
U.S. Energy Information Administration predicts 1.1 percent annual growth for the South Atlantic states between 2014 and 2023, and 1.0 percent annual growth for 2012 through 2040. EIA, Annual Energy Outlook 2014 Early Release, available at <http://www.eia.gov/oiaf/aeo/tablebrowser/#release=AEO2014ER&subject=0-AEO2014ER&table=2-AEO2014ER®ion=1-5&cases=ref2014er-d102413a>.

“I’m saying that our goals that were approved in 2010 were ten times higher than they had been, and by 2012 we were achieving those goals on an annual basis.” Tr. 1640 (Floyd).

“Q: ...if the Commission were to decide for your goals to endure, there’s nothing that would impede you from maintaining that same level of growth? A: It would be our intention to achieve the goals that the Commission sets.” Tr. 1641 (Floyd):

Gulf’s recent achievement is consistent with the savings achieved by DEF’s sister companies in other states, as shown in the figure below and confirmed by DEF Witness Duff. Tr. 1188 (Woolf Dir. Figure 6.5), Tr. 589-90 (Duff), Ex. 177. The Ramp-Up Goals are also consistent with the fact that **three years ago as many as 15 states achieved one percent savings**, and even more did so in 2012. Tr. 1182 (Woolf). As discussed above, the Arkansas electric utilities’ savings goals is 0.9 percent for 2015, and the largest Arkansas electric utility has already achieved that, too.

Duke Florida Goals Relative to Duke Goals in Other States (Woolf Direct Testimony, Figure 6.5)



There is no reason why Florida cannot catch up and save as much as other states. Witness Woolf testified to this based on his vast experience advising on energy efficiency programs across the country. Tr. 1189 (Woolf). DEF’s Witness agrees, he testified:

“What I was saying is we use -- the tests are calculated using the same variables across all the jurisdictions. Now, **some jurisdictions say some things are considered incentives and some things aren’t by definition in the legislation, in the statute and regulatory rules.**” Ex. 1597 (Duff Dep.).

“**And Indiana had a regulatory mandate on efficiency. And during the course of the three-and-a-half -well, it’s still in effect the rest of this year. So the four years that the regulated mandates are somewhat similar to Ohio’s in terms of how they ramped up to approximately a one-percent annual rate that -- actually 1.1 percent in 2014.**” Ex. 1747 (Duff Dep.).

Clearly the main difference between Florida and the states with higher savings is the regulatory support for energy efficiency, not the available savings potential.

e. The Ramp-Up Goals Are Consistent With Florida Statutes And Regulations Concerning Energy Efficiency

The Ramp-Up Goals are consistent with the applicable Florida statutes and regulations: the Florida Energy Efficiency and Conservation Act, Sections 366.80-366.85, 403.519, the Commission's FEECA implementing regulations, Rules 25-17.001 and 25-17.021, the Commission's power to set fair and reasonable rates, Sections 366.03, 366.04, and 366.05, F.S., and Florida's policy to "consider, in its decisionmaking, the social, economic, and environmental impacts of energy-related activities, including the whole-life-cycle impacts of any potential energy use choices, so that detrimental effects of these activities are understood and minimized."

As discussed above, the Ramp-Up Goals:

- Meet all four FEECA Section 366.82(3), F.S., criteria for the Commission's goal-setting to consider 1) cost-effectiveness for participants, 2) cost-effectiveness for Florida as a whole, 3) the need for incentives, and 4) the costs of federal greenhouse gas regulations. Tr. 1216-20 (Woolf).
- Help address Florida's strategic concerns about hedging against supply-side risks, and keeping costs down, because efficiency is the fastest, safest, lowest-cost, lowest-risk way to meet Florida's electricity demand.
- Support the Commissions' aim for FEECA goals to "to enhance job-producing economic growth by lowering energy costs from what they otherwise would be if these goals were not achieved." Rule 25-17.001(7), F.A.C., and "to protect the health, prosperity, and general welfare of the state and its citizens," Section 366.81, F.S.
- Are achievable based on the available energy efficiency potential in the Utilities' service areas, and thus consistent with Rule 25-17.0021(1), F.A.C., for FEECA savings goals to "be based on an estimate of the total cost-effective kilowatt and kilowatt-hour savings reasonably achievable through demand-side management in each utility's service area."
- Promote fair and reasonable rates because they would reduce the total costs recovered through rates, and raise participation in and awareness of simple efficiency measures that can offset any rate impacts for both participants and non-participants. Tr. 1118 (Woolf).
- Advance Florida's policy "to consider, in its decisionmaking, the social, economic, and environmental impacts of energy-related activities, including the whole-life-cycle impacts of any potential energy use choices, so that detrimental effects of these activities are understood and minimized." Section 377.601(2)(j), F.S.

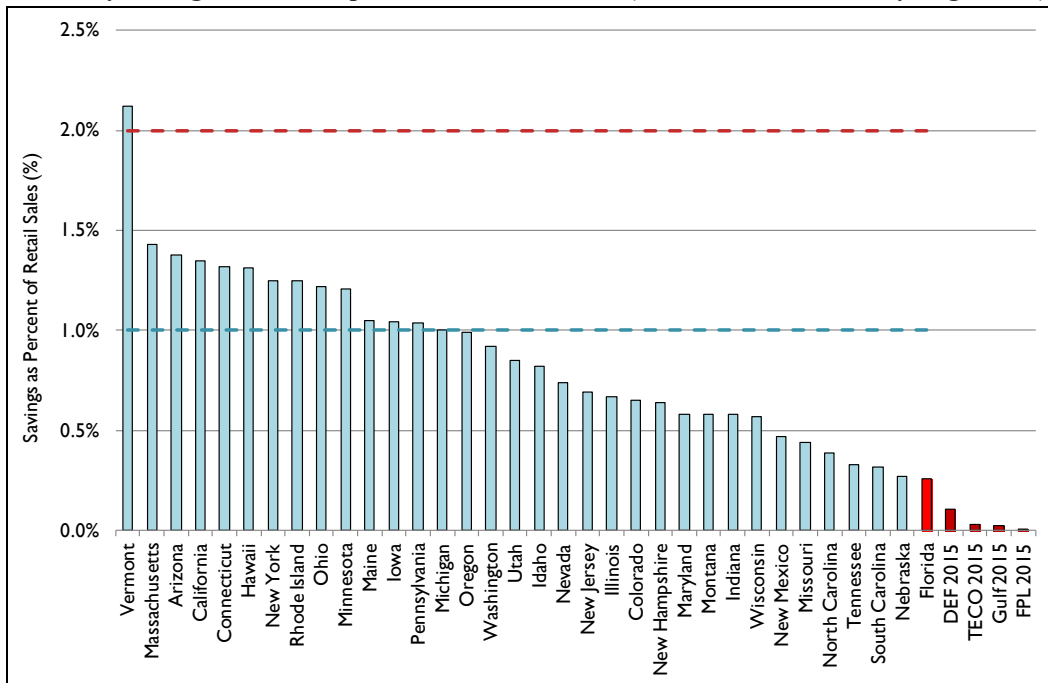
In short, the Ramp-Up Goals would give Floridians better choices than the Utilities' proposed roll back, and would expand programs so that all Floridians save and gain as much net benefits as customers in other states have saved for years.

4. The Commission Should Reject The Utilities’ Proposals Because They Are Skewed Against Energy Efficiency, They Exclude Cost-Effective Measures, And They Lead To Arbitrary, Extremely Low Goals That Flout Florida Law And The Public Interest

The majority of states currently save more energy than Florida—and Florida is falling further behind each year as other states ramp-up their energy efficiency investments rapidly and profitably. Tr. 1182 (Woolf Dir. Figure 6.2, reprinted below). The Utilities’ proposed rollback of efficiency programs threatens to make Florida one of the worst performing states on energy efficiency. Tr. 1186 (Woolf) (“If the Commission were to accept FPL’s proposed DSM goals, then FPL’s energy savings in 2015 would be less than the 2011 energy savings achieved by every other state in the country.”)

The Commission should reject their proposals. They are inconsistent with the Florida statutes and regulations governing efficiency programs and they would saddle electric billpayers with avoidable costs and risks of conventional generation, transmission, and distribution, as discussed above.

Efficiency Savings in 2011: Top US States and Florida (Woolf Direct Testimony, Figure 6.2)



In support of their rollback, the Utilities offer rigged analyses that purport to show that energy efficiency is not cost-effective. The Utilities have rigged their analyses in three principle ways: First, they applied the wrong screening test that only considers whether the utilities can keep their revenues constant in the face of energy savings that tend to reduce their revenues—the RIM test. Second, even in applying the RIM test, the Utilities have a completely arbitrary practice of excluding any efficiency measures that pay for themselves (through bill savings) in two years or less. Third, the Utilities padded the costs of measures to inflate how much they really cost.

- a. The Commission Should Reject The Use Of The RIM Test As The Primary Test For Efficiency Cost-Effectiveness Screening Because It Contravenes FEECA And Leads To Inaccurate Results That Are Biased Against Energy Efficiency

The Commission should unequivocally hold that the Ratepayer Impact Test, or “RIM,” test is not the appropriate test to use to evaluate energy efficiency and set energy efficiency goals under FEECA. In so doing, the Commission should reject the Utilities’ proposals that are based upon the RIM test as they are inconsistent with FEECA’s mandate and skewed against energy efficiency programs.

Again, FEECA Section 366.82(3), F.S., requires the Commission to evaluate the “full technical potential of all available demand-side and supply-side conservation and efficiency measures.” To this end, the Commission must consider four mandatory criteria in setting goals:

- 1) the costs and benefits to customers participating in the measure;
- 2) the costs and benefits to the general body of ratepayers as a whole, including utility incentives and participant contributions;
- 3) the need for incentives to promote both customer-owned and utility-owned energy efficiency and demand-side renewable energy systems; and
- 4) the costs imposed by state and federal regulations on the emission of greenhouse gases.

Section 366.82(3), F.S. The RIM test fails to satisfy the mandate of FEECA because, among other things, it fails to accurately assess the costs and benefits to “the general body of ratepayers as a whole” much less to “customers participating in the measure.” *Id.* Indeed, **what the RIM test does is only consider whether the utilities can keep their revenues constant in the face of energy savings that tend to reduce their revenues.** In essence, the RIM test assumes a world where the objective and outcome of energy efficiency programs is not to save billpayers money, but instead to make sure the Utilities do not lose any money in the face of declining sales.

It is for precisely this reason that **virtually no state except Florida relies on the RIM test to determine efficiency program cost-effectiveness.** Ex. 87 at 17. **To be clear, Florida is the outlier.** As Witness Woolf explained in his un rebutted testimony, the RIM test is a completely inappropriate tool to evaluate the cost-effectiveness of energy efficiency programs for any number of reasons, including:

- 1) **The RIM test treats the money that billpayers save from reduced electricity purchases as lost revenues that then must be made up in rate hikes to keep the Utilities whole.** But the Utilities’ lost revenues are not a “new” cost created by efficiency programs and this completely misses the point of the point of energy efficiency programs in practice. This is beyond dispute and hugely important because, as FPL’s own witness explained: **“the projected increase in customer bills [proffered by FPL] from a 1% GWh goal would be driven almost completely by the reduction in GWh over which costs would be recovered;”** i.e., lost revenues. Tr. 1436 (Sim). That is, the supposed “costs” of the Utilities’ RIM-based goals are driven almost completely by Utilities’ lost

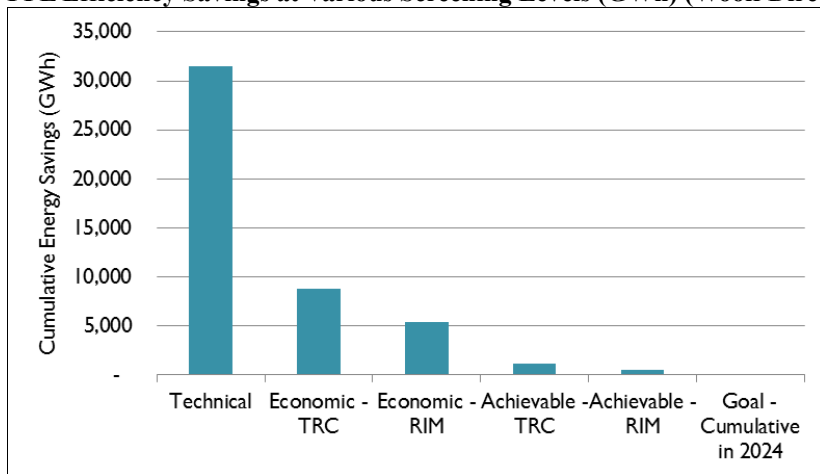
revenues from the reduction in electricity (GWh) sold, not the supposed cost of the energy efficiency measure. The RIM test fails even basic economics.

- 2) **Using rate impacts as the primary criterion to select efficiency programs can lead to perverse outcomes;** where the opportunity to significantly reduce utility system costs and customer bills may be forgone to avoid a very small increase in rates, as discussed in Section 3.a, above. Witness Woolf offered this poignant example of penny wise but certainly pound foolish outcomes under the RIM test: If FPL completes the construction of Turkey Point Nuclear Units 6 and 7, rates will need to be increased by much more than any potential rate impacts from efficiency programs that would offset the potential energy needs for those plants. However, FPL's RIM-based proposed savings goal entirely omits the avoidable costs and other benefits of postponing Turkey Point Units 6 and 7—one of the principal economic benefits of energy efficiency. Tr. 1166-67 (Woolf). In other words, it may be true that FPL's proposal will save customers from modest rate impacts in the near term, but even FPL expects its proposal to prove more costly “virtually every year after the first few years.” Tr. 1499 (Sim). **Higher costs under FPL's RIM-based proposal means higher average bills for everyone.**
- 3) Using rate impacts as the primary criterion to select demand-side efficiency programs is inconsistent with the treatment of supply-side resources like new generation, which routinely leads to cross-subsidization between customers. **There is no rational reason why supply side resources such as new generation or powerlines that are then owned by major corporations can be cross-subsidized while energy efficiency resources that are owned by the public generally somehow are prohibited from cross-subsidization.** The inconsistent treatment of demand-side and supply-side resources is clearly inconsistent with Florida policy to “encourage” demand-side resources. Section 366.82(2). It is also inconsistent with the State's policy to consider “the whole-life-cycle impacts of any potential energy use choices” because the RIM test does not evaluate the favorable long-term rate impacts of efficiency programs.
- 4) In this case, the Utilities have then compounded the inaccuracies of the RIM test by calculating rate impacts incorrectly. They estimate lost revenues on the basis of the full electricity rate, as opposed to just the fixed portion of electricity rates. This results in lost revenue estimates that could be more than double what the correct number would be. Tr. 1162 (Woolf).
- 5) Similarly, the Utilities calculate rate impacts incorrectly, by assuming that base rates will increase every year, when in fact base rates only increase at the time of a rate case.

The RIM test's ability to dramatically undercut the perceived availability of cost effective energy efficiency is evident in this proceeding. In this FEECA proceeding, FPL estimated it has over 30,000 GWh of technical potential to save. As is clear from the chart below, the RIM test comes back with far lower assessments of cost effective energy efficiency estimates than the TRC test, and presents an image of a state with very little energy efficiency that is economic. Tr. 1116 (Woolf Dir. Figure 2.2). The impacts of the RIM test are then further amplified by two other

measures that the Utilities employ to undercut available energy efficiency, including the two year payback period and padded costs of energy efficiency measures.

FPL Efficiency Savings at Various Screening Levels (GWh) (Woolf Direct Testimony, Figure 2.2)



Nor is FPL alone—other Utilities in this FEECA proceeding also propose extremely low savings goals by primarily relying on RIM test results, in addition to the two-year payback test. For all the reasons discussed, above, the Commission should reject the use of the RIM test in FEECA proceedings to determine cost effective measures and should likewise reject the Utilities’ proposals that relied on them.⁵

- b. The Commission Should Reject The Utilities’ Proposals Because They Arbitrarily Excluded Energy Efficiency Measures From Consideration Based Simply On The Fact That The Measures Pay Themselves Off In Two Years
 - i. The Utilities Arbitrarily Excluded The Most Cost-Effective Efficiency Measures—Those That Pay Themselves Off In Two Year Or Less

There is no dispute in this case that each of the Utilities excluded from consideration energy efficiency measures that pay themselves off in two years or less. Tr. 1320 (Koch), 551, 592, 602 (Duff), 1614 (Bryant), 1647 (Floyd). Indeed, every Utility witness that was asked confirmed that this was the case and none of them tried to rebut it. Moreover, when asked whether they had any evidence to justify their assertion that excluding these measures was necessary to prevent “free-ridership”—the concept that the Utilities would be paying to subsidize an energy efficiency program that a “rational economic actor” would supposedly adopt anyway—the Utilities had no such evidence. All the evidence was to the contrary.

⁵ Witness Woolf highlighted that the Utility Costs Test is the one test that could provide the most information about the impacts on utility revenue requirements and thus the impacts on customer bills. Tr. 1173 (Woolf). There is no reason why the Utilities cannot present UCT test results. They already do so in other jurisdictions, Tr. 599 (Duff), the Legislature directed FEECA to be “liberally construed,” and the Section 366.82 cost-effectiveness criteria are not meant to be exhaustive. Therefore, the fact that the UCT test does not yet appear in the Commission’s Manual is no reason for the Commission not to avail itself of this helpful information going forward.

For example, FPL witness Koch testified: “There’s no specific Florida analysis where we are trying to further evaluate free riders or free drivers as you have defined it.” Tr. 1320. Similarly, TECO and Gulf witnesses testified: “Now, do we know whether they implemented them or not? No, we do not.” Tr. 1614 (Bryant) “I don’t have any empirical support for that other than just the logic of it being a [sic] reasonable -- that those kinds of measures having [sic] a reasonable payback to the customer.” Tr. 1647 (Floyd).

Meanwhile the evidence the Utilities provided in support of the two-year pay back limit instead demonstrates the fact that homeowners and even more so renters are not in fact adopting the measures on their own, and incentives are needed to encourage adoption of such energy efficient measures. Ex. 182. For example, The Utilities point to a 2013 residential survey data from Duke’s service area and Home Depot sales of efficient light bulbs in FPL’s service area to argue that incentives are not needed, purportedly because people are adopting these measures anyway. But the data in fact shows just the opposite—there is low market penetration for short-payback measures and therefore a small likelihood of freeridership. Tr. 1160 (Woolf), Tr. 1253 (Deason), Ex. 182. For example, there are two types of efficient light bulbs, compact fluorescent lights (CFLs) and the more advanced light emitting diodes (LEDs). The Utilities screened out *both* types of bulbs but note that LEDs have a longer than two-year payback. Tr. 548 (Duff).

Differences between CFLs and LEDs aside, they tell the same story: Floridians are nowhere near replacing 100 percent of the incandescent bulbs in their homes with efficient lighting. For instance, forty-one percent (41%) of respondents who live in multi-family dwellings have not replaced *any* light bulbs with CFLs. As for the more advanced LEDs, forty-four percent (44%) of respondents had “considered or tried” installing them. Only 19% of the respondents had installed 1 to 3 LED light bulbs. These low penetration rates indicates low potential free-ridership for efficient lighting programs. That is, Duke and the other Utilities could include light bulbs in their efficiency programs and spur a lot of additional savings that is not happening otherwise in their service areas. Moreover, Duke’s survey says nothing about how many light bulbs are in the respondents’ homes. Commonsense tells us that the average home has many more than 3 bulbs. This, too, supports the inclusion of low-cost, short-payback measures, like CFLs and LEDs, in efficiency programs.

The fact that Home Depot sells a lot of efficient light bulbs in FPL’s service area is not to the contrary. Home Depot sales alone tell the Commission little about the actual market penetration or potential freeridership for efficient light bulbs. What is most relevant is the extent to which customers, including customers who do not shop at Home Depot, have *not* purchased efficient light bulbs, despite the ability to reduce their electricity costs in less than two years. That is where efficiency programs help advance energy savings.

The impact of this unfounded two-year screen on which measured the Utilities included in their proposal cannot be overstated. FPL, for example, cut nearly a quarter of its potential using this test. Tr. 1161 (Woolf), Ex. 6.

Yet the Utilities have never verified 1) how much freeridership actually occurs in Florida for particular measures, nor 2) how much spillover (also called the free-driver effect and the

opposite of free-ridership) occurs in Florida. As the Commission’s Independent FEECA Study explained, spillover is when “a neighbor of a program participant saw the energy savings from the participant’s high-efficiency air conditioner and decided to purchase one not supported by the program, those spillover energy savings could be attributed to the program.” As the nation’s leading energy efficiency experts at the American Council for an Energy-Efficient Economy note free-ridership and spillover may in fact “net out.” And in the very least, before the Utilities are allowed to exclude a measure on account of supposed freeridership they should at least be required to use the research tools identified by the Commission’s Study and used by other states that can determine what is actually occurring in the marketplace with respect to freeridership and spillover. Tr. 1119 (Woolf).

ii. The Two-Year Payback Is Also Harmful Because It Hurts the Most Vulnerable Customers

Another reason for the Commission to reject the two-year payback test is that it zeros out the vast majority of residential energy efficiency measures, which hurts low-income customers, fixed-income customers, and gap customers who are just above the poverty line, as well as new homeowners who are fully extended with new debt obligations. These customers face the highest barriers to adopting even low-cost, short-payback measures on their own, as discussed in Section 3.a, above.

For example, due to DEF’s two-year payback screening (in combination with the Rate Impact Measure test discussed above), none of the measures included in the company’s current low-income programs made it into the company’s proposed savings goal—the low-income measures are literally zeroed out. The table below illustrates this by comparing: 1) DEF’s current low-income programs, the Neighborhood Savings Program and Low-Income Weatherization Assistance Program, DEF 2014 TYSP, at 2-28, 2) the results of DEF’s application of the two-year payback test, Ex. 37, 38, and 3) the results of DEF’s 2013 Residential End-Use Study, Ex. 182. The table shows low market penetration for the measures DEF studied, which counsels for their continued inclusion in utility programs.⁶ It also counsels for DEF to perform more systematic market penetration studies for low-cost, short-payback measures.

Impact of DEF’s Two-Year Payback Screening on Low-Income Measures⁷

DEF low-income program measures	Survived Two-Year Payback test? (Yes/No)	Included in '13 Residential End-Use Study? (Yes/No)	DEF service area – total penetration
Attic insulation upgrades	No	No	N/A
Duct testing and repairs	No	Yes	28%
Reduced air infiltration	No	No	N/A
Water heater wrap	No	Yes	11%
Water pipe insulation	No	Yes	8%
Dedicated heat pump water heaters	No	No	N/A
Heat recovery units	No	No	N/A

⁶ Note, DEF reports even lower penetration rates for certain residential market segments; e.g., renters.

⁷ The table shows DEF’s proposal, which reflects two-year payback and RIM screening. The measures highlighted in green pass DEF’s two-year payback and TRC screening.

High efficiency heat pumps	No	No	N/A
Low-flow showerhead/faucets	No	Yes	39%
Refrigerator coil brush and refrigerator thermometer	No	No	N/A
Wall plat thermometer	No	No	N/A
HVAC winterization kit and maintenance	No	No	N/A
HVAC filters and filter-change calendar	No	No	N/A
Door sweeps	No	No	N/A
Weather stripping	No	No	N/A
Caulking	No	No	N/A
Foam Insulation	No	No	N/A
Clear patch tape	No	No	N/A
5 CFLs	No	Yes	N/A* ⁸

For all the foregoing reasons, the Commission should reject the Utilities’ proposals for their reliance on the two-year payback test and mere assumptions that are not supported in the record.

The Commission should also give no weight to FPL’s proposal the very end of the hearing—to add short payback measures back in during the program approval stage or address low income measures in a separate, program from low income residents alone —because it violates FEECA. FEECA’s goals must reflect the best evidence of “the full technical potential,” Section 366.82(3), F.S., and be based on that the “reasonably achievable” potential in each utility’s service area, Rule 25-17.0021, F.A.C. Here, there is overwhelming evidence that FPL and the other Utilities could achieve the Ramp-Up Goals, and not a shred of evidence for excluding as much as a quarter of each company’s technical potential due to two-year payback screening. To address the needs of low-income customers, the Commission should adopt the Ramp-Up Goals. Limiting such programs to isolated low income programs and excluding them from the general public is entirely unfounded on this record. To address freeridership, as required by Rule 25-17.0021, F.A.C., the Commission should require the Utilities to conduct evaluation, measurement, and verification, discussed further in Section 5, below.

c. The Utilities Are Padding The Cost Of Otherwise Cheap Efficiency Measures, Which Makes Their Efficiency Screening Results Unreliable And Counsels For Rigorous Evaluation, Measurement, And Verification Of Measure And Program Costs

The Utilities padded the costs of measures to inflate how much they really cost. For example, FPL’s witness testified that for a simple faucet aerator the company counted \$10 equipment costs but \$108 administrative costs. Tr. 417, 419 (Sim), To put this into context, Witness Mims

⁸ DEF’s study did not systematically identify the fraction of home light bulbs that have been replaced with CFL or LEDs; rather DEF identified homes that have not installed any efficient bulbs, installed 1 to 3 LEDs, or replaced over two-thirds of their bulbs with CFLs.

testified that historic efficiency program costs reported by the utilities are significantly above the average cost of comparable programs. Tr. 969 (Mims). Further, she noted, “[t]he Utilities inclusion of administrative costs and maximum incentive levels in their proposed goals continues this trend of inflated costs.” Id. Indeed, on a levelized basis, energy efficiency costs as little as 2.13 cents/kWh (2013 national average) and up to 6-7 cents/kWh (FPL’s reported costs), as discussed in Section 3.a, above.

To be sure, even at Florida’s unduly inflated costs, efficiency programs are a bargain. However, **the real reason why Florida’s efficiency programs costs triple the national average is Florida’s extraordinary practice of using the RIM and two-payback tests and failure to require Florida-specific evaluation, measurement, and verification for efficiency programs, discussed above and further below.** Therefore, the Commission should give no weight to the Utilities’ efficiency screening results and instead require the Utilities to present new analyses that include the appropriate empirical support from what actually occurs in the Florida marketplace. Even the Utilities admit this is not hard to do. When asked, Gulf’s witness testified that a Florida-specific market study for energy efficiency measures could be completed in roughly a year. Tr. 1662 (Floyd).

- d. The Utilities’ Proposals Fail To Consider Greenhouse Gas Regulations, And Therefore Fail To Identify The Level Of Efficiency Program Savings That Florida Can Include In Its Clean Power Plan Compliance Strategy, Due June 30, 2016

The Utilities’ proposals fail to consider greenhouse gas regulations, as they must under FEECA Section 366.82(3)(d). At the hearing, DEF, TECO, and Gulf Witnesses confirmed that they are aware of the relevant U.S. Environmental Protection Agency proposed regulation, the Clean Power Plan. For example, DEF’s witness Borsch testified: “In a general way, yes. I have not read all thousand pages of it.” Tr. 1532. The Utilities are also aware that the Clean Power Plan will impose mandatory carbon emissions reductions goals for existing fossil fuel-burning power plants for the first time at the federal level, and that demand-side energy efficiency is recognized as a compliance option under the proposed rule. Again as an example, DEF’s witness Borsch testified: “**Certainly in its [Clean Power Plan] proposal the EPA has identified energy efficiency as one of the potential opportunities to reach compliance with its targets.**” Tr. 1532.

Remarkably, these witnesses—each of whom are one of their corporation’s leads on efficiency program-related regulatory planning—have no plan—nor much of an idea how they will formulate a plan—for CPP compliance. Witness Borsch testified: “I would say that **we are not anywhere near the stage of actually developing even a preliminary plan around the compliance.**” Tr. 1538.

Therefore, the Utilities presented the Commission with no information on how their efficiency programs could contribute to Florida’s strategy for compliance with the Clean Power Plan. Again, Witness Borsch:

Q: And it is your testimony that the company’s proposed goals do not factor in compliance requirements under the proposal by EPA.

A : They do not. They were developed before the proposal came out.” Tr. 1537.

They have no excuse. The Witnesses admit that the issuance date for the Clean Power Plan was publicized in July 2013. Memorandum from President Obama to Administrator of the Environmental Protection Agency, Power Sector Carbon Pollution Standards (June 25, 2013). Incidentally, this is around the time when the Utilities began developing their energy savings goal proposals for 2015 through 2024. They also admit that, as proposed, the Clean Power Plan calls on states, including Florida, to achieve carbon reduction targets between 2020 and 2030, and that the next FEECA goal-setting in 2019 will be too late to inform Florida’s (initial) CPP implementation plan, which is due June 30, 2016, as discussed in Section 2, above.

Resource planning fundamentals require a more proactive look at forthcoming EPA rules. Ex. 83 (Practicing Risk-Aware Electricity Regulation). To be clear, this is already common practice in Florida, as discussed in Section 3.a, above. Moreover, Commissioner Balbis directed Staff to study the implications of EPA greenhouse gas regulations for Florida, and Staff completed that analysis by September 2013, well before EPA issued the Clean Power Plan. Ex. 61. This begs the question, if a government agency with limited resources can complete the analysis, what possible reason is there that billion-dollar corporations, in Duke’s case the largest electric power holding company in the United States, cannot do the same or better?

Notably, when Sierra Club asked the Utilities whether the Commission should revisit FEECA goals to inform Florida’s development of its CPP implementation plan, they all agreed it is well within the Commission’s discretion to do so. For example, TECO’s expert Bryant testified: I think it will be the discretion of this Commission to decide how to do it.”

Further, the Commission should give no weight to FPL and DEF’s carbon cost sensitivity analyses because they obscure the greenhouse gas reduction benefits of energy efficiency and therefore fall short of the Section 366.82(3)(d) requirement. Tr. 1119, 1141-44 (Woolf). These sensitivity analyses occurred too late in the Utilities’ screening process to yield reliable results; by the time the Utilities’ examined carbon cost sensitivities they had already excluded the vast majority of cost-effective measures using the flawed screening and resource planning practices described above.

Similarly, the Commission should give no weight to FPL’s bald claims that it can achieve compliance with the Clean Power Plan by relying mainly on new gas and nuclear units are similarly misplaced. Those units costs more than twice as much as efficiency programs; they can be avoided, deferred, or reduced through efficiency programs; and therefore they clearly are not the most cost-effective compliance options, as discussed above in Sections 3 and 4. FPL has not presented any evidence showing that the Ramp-Up Goals would not achieve compliance more cost-effectively than its preferred plan to “simply throttle back” efficiency programs.

For all these reasons, the Commission should reject the Utilities’ proposals for their failure to consider the Clean Power Plan. The next section provides a better way to align the goal-setting process with the State’s preparations for the Clean Power Plan.

5. The Commission Should Take Several Steps To Improve The FEECA Goal-Setting Process Going Forward

Given the fatal flaws in the Utilities' proposals, the Commission should take several steps to improve the goal-setting process going forward:

- 1) Re-open the FEECA docket in 2015 to align the utilities' savings goals with Florida's compliance obligations under new federal greenhouse gas regulations. Given the June 30, 2016, due date for Florida's compliance plan, the Commission should revisit goals no later than the summer of 2015, with updated energy efficiency studies being conducted in the meantime. Notably, the utilities did not oppose this at the hearing. Tr. 1611 (Bryant), Tr. 1643 (Floyd), Tr. 1474 (Sim), Tr. 1540-41 (Borsch).
- 2) Specify that in future studies the proper screening tests is a robust Total Resource Cost test because it is the truest to FEECA cost-effectiveness criteria. Also specify that this test must include (a) customer incentives provided by a utility, (b) reasonable estimates of participant non-energy benefits, and (c) reasonable estimates of greenhouse gas compliance costs in the base case analysis. Tr. 1119 (Woolf).
- 3) Reject the RIM and two-year payback tests as the primary cost-effectiveness tests for efficiency measures. Id.
- 4) Require the utilities to (a) present the results of the Utility Cost test, which is the single best test for identifying the impacts on utility revenue requirements and thus the impacts on average customer bills; and (b) properly analyze the rate, bill and participation impacts. Id.
- 5) For future resource planning and savings goal-setting purposes, require the utilities to (a) truly optimize the combination of demand-side and supply-side resources rather than "freezing" supply side plans and comparing them to a predetermined amount of efficiency measures and (b) use reasonable estimates of free-rider impacts from measurement and verification studies, and not the overly simplistic two-year payback criterion. Tr. 1119 (Woolf).
- 6) To set demand-side renewable goals, open a separate docket to investigate the effectiveness of solar rebate programs and the role of utility-owned solar photovoltaic (PV) systems. Tr. 1227-28 (Woolf). Require the utilities to investigate opportunities to update their PV marketing and incentive approaches so as to (a) pay as little as possible to encourage adoption of PV in light of declining PV costs, and (b) install as much PV as possible with the limited funding available for this purpose. Tr. 1118 (Woolf).

e. Statement of Issues and Positions

- ISSUE 1. Are the Company’s proposed goals based on an adequate assessment of the full technical potential of all available demand-side and supply-side conservation and efficiency measures, including demand-side renewable energy systems, pursuant to Section 366.82(3), F.S.?
- POSITION *No. In addition to categorically omitting supply-side measures, each Company’s technical potential study lacks demand-side measures, including: building commissioning and retro-commissioning, new types of LED lighting fixtures, various efficiency measures in data centers, efficiency measures for water and wastewater treatment plants and the agricultural sector, and ultra-low energy buildings such as net zero energy buildings and “Passive Houses.”*
- ISSUE 2. Do the Company’s proposed goals adequately reflect the costs and benefits to customers participating in the measure, pursuant to Section 366.82(3)(a), F.S.?
- POSITION *No, the Company’s proposed goals do not reflect all measures that pass the Participant test – the standard test included in the Commission’s Cost-Effectiveness Manual for measuring participant costs and benefits.*
- ISSUE 3. Do the Company’s proposed goals adequately reflect the costs and benefits to the general body of rate payers as a whole, including utility incentives and participant contributions pursuant to Section 366.82(3)(b), F.S.?
- POSITION *No, RIM-based goals only consider whether the Company can keep its revenues constant in the face of energy savings that tend to reduce revenues. Perversely, RIM-based goals lead to higher system costs and higher average bills for everyone.*
- ISSUE 4. Do the Company’s proposed goals adequately reflect the need for incentives to promote both customer-owned and utility-owned energy efficiency and demand-side renewable energy systems, pursuant to Section 366.82, F.S.?
- POSITION *Partly yes, the Company’s proposed very low goals reflect the need for better utility incentives—i.e., regulatory support—to save more energy and advance distributed solar power. Therefore, Sierra Club recommends that the Commission open a new generic docket to investigate revenue decoupling and shareholder incentives, as described in Section 8 of Witness Woolf’s Direct Testimony.*
- ISSUE 5. Do the Company’s proposed goals adequately reflect the costs imposed by state and federal regulations on the emission of greenhouse gases, pursuant to Section 366.82(3)(d), F.S.?
- POSITION *No, the Company presented no useful information for setting goals that consider the cost-effectiveness of energy efficiency under forthcoming federal greenhouse gas regulations known as the Clean Power Plan, or the amount of reasonably

achievable greenhouse gas reduction from efficiency for inclusion in Florida's CPP implementation plan due June 2016.*

ISSUE 6. What cost-effectiveness test or tests should the Commission use to set goals, pursuant to Section 366.82, F.S.?

POSITION * Total Resource Cost test because it is truest to FEECA's overall mandate and Section 366.82(3) criteria. The Commission should clarify that TRC includes (a) customer incentives provided by the Company, (b) reasonable estimates of participant non-energy benefits, and (c) reasonable estimates of carbon costs in the base case analysis.*

ISSUE 7. Do the Company's proposed goals appropriately reflect consideration of free riders?

POSITION *No, the two-year screen arbitrarily excludes low-cost, short payback measures without any empirical support in the record for doing so. The record shows the opposite—low market penetration for two-year measures so including these measures will add savings for everyone and avoid harming vulnerable customers.*

ISSUE 8. What residential summer and winter megawatt (MW) and annual Gigawatt-hour (GWh) goals should be established for the period 2015-2024?

POSITION *The Commission should set goals to ramp up the Company's annual energy savings to equal at least one percent of retail sales by 2019, or earlier as the Southern Alliance for Clean Energy has proposed. Company-specific goals are presented in Prehearing Order PSC-14-0356-PHO-EU.*

ISSUE 9. What commercial/industrial summer and winter megawatt (MW) and annual Gigawatt hour (GWh) goals should be established for the period 2015-2024?

POSITION *Sierra Club takes the same position on Issue 9 as on Issue 8, above.*

ISSUE 10. What goals, if any, should be established for increasing the development of demand-side renewable energy systems, pursuant to Section 366.82(2), F.S.?

POSITION *The Commission should require the Company to substantially revise and expand its demand-side solar programs, as outlined in Witness Woolf's Direct Testimony. Through a separate docket, the Commission should collect the relevant information needed to appropriately value and set goals for distributed solar power.*

ISSUE 11. Should the Company's existing Solar Pilot Programs be extended and, if so, should any modifications be made to them?

POSITION *The Commission should open a separate docket to investigate appropriate goals for customer-sited renewables, and to address some related issues, e.g., the effectiveness of the design, marketing and administration of solar rebate programs and the role of utility-owned solar photovoltaic (PV) and solar water heating systems.*