BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Commission review of numeric conservation Goals (Florida Power & Light Company)	Docket No. 20190015-EG Filed: September 20, 2019

POST-HEARING BRIEF OF FLORIDA POWER & LIGHT COMPANY

I. INTRODUCTION

Florida Power & Light Company ("FPL") hereby files with the Florida Public Service Commission ("Commission") its Post-Hearing Brief in the above-referenced docket pursuant to Rules 28-106.215 and 28-106.307, Florida Administrative Code ("F.A.C."), and the Commission Order Nos. PSC-2019-0062-PCO-EG ("OEP") and PSC-2019-0323-PHO-EG. The purpose of this proceeding is to adopt Demand Side Management ("DSM") Goals for the period of 2020-2029 pursuant to and in compliance with the current requirements of the Florida Energy Efficiency and Conservation Act ("FEECA"), Sections 366.80, *et seq.*, Florida Statutes ("F.S."), and the Commission's DSM Goals Rules set forth in Chapter 25-17, F.A.C.

The evidence in this proceeding demonstrates that FPL has proposed numeric conservation Goals for reasonably achievable demand savings and annual energy savings for 2020-2029 pursuant to and in full compliance with FEECA and Rules 25-17.001, 25-17.0021, and 25-17.008, F.A.C. The evidence further demonstrates that FPL's proposed DSM Goals will result in the lowest levelized system average electric rates for the benefit of all of FPL's customers. Maintaining lower rates through adopting cost-effective Rate Impact Measure ("RIM")-based DSM is the most beneficial approach for FPL's customers, particularly its low-income customers. For these reasons, the Commission should approve and adopt FPL's cost-effective DSM Goals for the ten-year period of 2020-2029.

II. SUMMARY OF ARGUMENT

Through FEECA, the Florida Legislature has emphasized the importance of utilizing 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." *See* § 366.81, F.S. Cost-effectiveness is a prevailing purpose and consideration throughout FEECA. Within this framework, the Commission is directed by the Florida Legislature to adopt "appropriate goals." *See* § 366.82(2), F.S.

Consistent with FEECA, the Commission has adopted DSM Goals Rules that require each utility to propose "cost-effective" Summer and Winter peak demand (megawatt or "MW") and annual energy (gigawatt-hour or "GWh") Goals that are reasonably achievable in the residential and commercial/industrial classes, as well as to consider the effects of free riders and state building code and federal appliance efficiency standards ("Codes and Standards"). *See* Rule 25-17.0021(3), F.A.C. To that end, the Commission has a long and consistent history of implementing FEECA in a manner that: (i) minimizes rate impacts on all customers by relying primarily on the RIM cost-effectiveness preliminary screening test, Tr. 1046 (Deason); (ii) does not ask customers to pay incentives to "free rider" participants, Tr. 1063 (Deason); and (iii) is based on the utility's recent resource planning process, Tr. 182 (Whitley). This approach has served FPL's customers well for decades, with FPL achieving significant cumulative DSM savings (*e.g.*, avoiding the equivalent of 15 power plants of 400 MW each) while keeping electric rates low for all of its customers. Tr. 60 (Koch).

In this proceeding, FPL followed a rigorous, six-step analytical process similar to the process it has used in past DSM Goal-setting proceedings. Tr. 150-53 (Whitley). This process utilized current forecasts and assumptions and appropriately reflected FPL's specific resource

needs and system costs. Tr. 155-56 (Whitley). The undisputed record in this case demonstrates that several factors have significantly reduced the cost-effectiveness of DSM measures since the last DSM Goals proceeding. Tr. 213-43 (Sim). For example, current forecasted fuel costs are lower, FPL's generating system is more fuel-efficient, the $/kW cost to build new power plants is lower, and current projected carbon dioxide emission compliance costs are lower. Tr. 230-32 (Sim). Additionally, the amount of energy efficiency projected to be delivered by Codes and Standards over the 10-year Goals period has increased since the time goals were last set (13% increase in energy reduction and 30% increase in peak load reduction). The current estimate shows that Codes and Standards are estimated to provide approximately 160 MW and 470 GWh of savings *per year* over the 2020-2029 Goals period. Tr. 284-85 (Sim). Each of these factors greatly benefits customers through reduced system costs and lower electric rates, although they reduce the cost-effectiveness and availability of DSM options. Tr. 245-46 (Sim).

In this proceeding, FPL has proposed significant, appropriate, and achievable DSM Goals that will add to the savings achieved from the DSM Goals established in the 2014 DSM Goals proceeding, as well as be additive to the significant savings that will be delivered by Codes and Standards over the 10-year Goals period. Tr. 71-72, 79 (Koch). FPL's analyses and testimony in this docket demonstrate that FPL's proposed Goals of 352 Summer MW, 259 Winter MW, and 1,023 MWh appropriately reflect the amount of cost-effective DSM reasonably achievable over the 2020-2029 DSM Goals period, which is equivalent to avoiding an additional 400 MW power plant and would have the effect of deferring a 1,886 MW combined cycle unit from 2030 to 2031. Tr. 79 (Koch); Exs. 5 and 13 (FPL Exs. TRK-4 and AWW-8); Tr. 173 (Whitley).

FPL's proposed Goals are based on measures that passed the RIM economic screening test, minimize/eliminate the unnecessary payment of incentives to potential "free rider"

participants, avoid cross-subsidization of DSM program participants by customers who do not or cannot participate, and reflect FPL's resource planning process. Tr. 164-65, 176 (Whitley). FPL's proposed RIM-based Goals result in the lowest levelized system average electric rates of all the resource plans analyzed. Tr. 176 (Whitley); Ex. 15 (FPL Ex. AWW-10). Indeed, the evidence demonstrates that FPL's customers would have to make a one-time payment of approximately $200 million in 2029 on top of FPL's RIM-based goals in order for the RIM-based goals' levelized system average electric rate to match the higher levelized system average electric rate of the Total Resource Cost ("TRC") resource plan. Tr. 177 (Whitley).

The Southern Alliance for Clean Energy ("SACE") was the only intervenor to submit testimony in opposition to FPL's proposed DSM Goals. As explained below, SACE's arguments in opposition to FPL's proposed DSM Goals have previously been considered and rejected by this Commission in prior DSM Goals dockets. Further, SACE's DSM proposals are contrary to and completely ignore FEECA and the Commission's DSM Goals Rules, would increase electric rates, and would be outrageously expensive for all customers who could not, or chose not to, participate in voluntary DSM. Notably, SACE did not perform any Florida-specific economic evaluations that meet the criteria of Section 366.82, F.S., Rule 25-17.0021, F.A.C, and the Commission's Cost Effectiveness Manual for Demand Side Management Programs and Self Service Wheeling Proposals ("DSM Cost-Effectiveness Manual") adopted by Rule 25-17.008, F.A.C. Indeed, SACE completely ignored the mandatory cost-effectiveness requirements of FEECA and the Commission's DSM Goals Rules and, instead, recommended (i) an arbitrary GWh savings Goal of 1.5% of retail sales based on savings that SACE claims were achieved by only two, cherry-picked, non-Florida utilities in one year, Tr. 966-74 (Grevatt), and (ii) a low-income DSM program in which all FPL customers would be forced to pay the entire cost for free

new appliances for hundreds of thousands of participating low-income customers, Tr. 1013 (Bradley-Wright).

SACE's recommended 1.5% of sales Goal is based entirely on what SACE claims two other non-Florida utilities were able to achieve in 2018. Tr. 966-74 (Grevatt). The Commission has fully considered and rejected SACE's recommended percentage of sales approach in the 2014 and 2009 DSM Goals dockets.[1] Similar to SACE's recommendations in those dockets, SACE's proposal here is not based on FPL's or any other Florida utility's planning process, or any cost-effectiveness analysis as required by FEECA and the Commission's DSM Rules. Tr. 1188-89 (Whitley); Tr. 1230, 1234 (Sim). It also does not include Summer and Winter MW savings as required by the Commission's DSM Goals Rule. Tr. 1231-33 (Sim). Further, SACE's reliance on the savings purportedly achieved by two non-Florida utilities subject to entirely different regulatory and operating environments is an inappropriate benchmark, an apples-to-oranges comparison, and appears to be nothing more than a thinly veiled attempt to mislead the Commission and the FEECA utilities. Tr. 1150-52, 1154 (Koch). Indeed, SACE conceded that the savings it claims these two non-Florida comparison utilities achieved was overstated by as much as 60%. Tr. 1152-54 (Koch); Ex. 94 (FPL Ex. TRK-6).[2] Finally, SACE's arbitrary savings as a percent of sales proposal would significantly increase electric rates for FPL's customers. Tr. 1194-95 (Whitley). For FPL's RIM-based levelized system average electric rate to be equal to the levelized system average electric rate that would result from

[1] *See In re: Commission review of numeric conservation goals,* Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, p. 36 (FPSC Dec. 16, 2014) (rejecting SACE/ Natural Resources Defense Council's ("NRDC") 1% of sales DSM proposal); *In re: Commission review of numeric conservation goals,* Docket No. 20080407-EG, Order No. PSC-2009-0855-FOF-EG, p. 7 (FPSC Dec. 30, 2009) (rejecting SACE/NRDC's reliance on savings in other states outside of Florida).

[2] Additionally, SACE's reliance on non-FPL utilities ignores FPL's unique low system costs and high efficiency profile as explained by FPL witness Dr. Sim, all of which keep electric rates low for FPL's customers. *See* Tr. 222-24, 230-35 (Sim).

SACE's percent of sales recommendation, FPL's customers would have to make the equivalent of a one-time payment of approximately $28 billion in 2029. *Id*. For these reasons, SACE's recommended 1.5% of sales Goal should be rejected.

SACE's low-income DSM proposal was unsupported by meaningful data, beyond the scope of this Goals proceeding, and unnecessary. There is nothing in FEECA or the Commission's DSM Goals Rules that provides for or authorizes the Commission to set separate Goals for low-income residential customers or their landlords. Tr. 1139 (Koch). Further, SACE's proposal completely abandoned any meaningful consideration of cost-effectiveness and would essentially result in free appliances for participating low-income customers or their landlords for those who are renters. Tr. 1202 (Whitley). FPL estimated that SACE's low-income proposal would cost approximately $4.1 billion over and above SACE's proposed 1.5% savings 2020-2029 Goal, which would be paid for by *all* FPL customers, *including low-income customers*. Tr. 1132-33 (Koch). For these reasons, SACE's low-income DSM proposal should be rejected.

As discussed in more detail below, the record in this case overwhelmingly supports the approval of FPL's cost-effective DSM Goals. Unlike SACE's proposal, FPL's proposed DSM Goals fully comply with the requirements of FEECA, the Commission's DSM Goals Rules, and the Commission's DSM Goals Cost-Effectiveness Manual and will result in the *lowest* levelized system average electric rates for the benefit of all of FPL's customers.[3] Accordingly, FPL's proposed DSM Goals should be approved.

[3] Indeed, there is no record evidence challenging FPL's conclusion that its proposed DSM Goals will result in the lowest levelized system average electric rates, only vague and unsubstantiated arguments that customer impacts should be gauged differently. However, the Commission has consistently recognized that *rate impacts* are a fundamental consideration in setting DSM goals. *See, e.g., In Re: Adoption of Numeric Conservation Goals and Consideration of National Energy Policy Act Standards*, Docket No. 19930548-EG, Order No. PSC-1994-1313-FOF-EG, p. 22 (FPSC Oct. 25, 1994); *In re: Commission review of numeric conservation goals*, Docket No.

(*continued on next page*)

III. ARGUMENT

A. Technical Potential

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.?

***FPL Position**: Yes. An outside consultant, Nexant, performed the Technical Potential Study for each of the FEECA Utilities. The analysis required extensive iterative work and continuous collaboration to ensure that it was comprehensive and resulted in a thorough and wide-ranging reassessment of conservation and efficiency measures. (*Koch, Herndon*)*

FEECA requires the Commission to "evaluate the full technical potential of all available demand-side and supply-side conservation and efficiency measures, including demand-side renewable energy systems." *See* § 366.82(3), F.S. The Technical Potential ("TP") analysis is the first in a series of steps in the DSM Goals development process. Tr. 63 (Koch); Tr. p. 325 (Herndon). Its purpose is to identify the theoretical limit to reducing Summer and Winter electric peak demand (MW) and annual energy (GWh). Tr. 64 (Koch). The TP assumes every identified potential end-use measure is installed everywhere it is "technically" feasible to do so from an engineering standpoint. *Id*. The TP ignores cost, customer acceptance, or any other real-world constraints (such as product availability, contractor/vendor capacity, cost-effectiveness, and customer preferences). *Id*. Therefore, the TP in no way reflects the MW and GWh savings that are actually achievable through real-world, voluntary utility programs. *Id*.

FPL and the other six utilities subject to FEECA engaged a nationally recognized DSM consultant, Nexant, which has conducted over 25 Market Potential Studies ("MPS") to identify

---

(continued from prior page)
20080407-EG, Order No. PSC-2009-0855-FOF-EG, pp. 15, 26(FPSC Dec. 30, 2009); and *See In re: Commission review of numeric conservation goals*, Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, p. 12 (FPSC Dec. 16, 2014).

opportunities for DSM in the United States and Canada. Nexant conducted the TP analysis for FPL and other FEECA utilities.[4] Tr. 64 (Koch); Tr. 319-20 (Herndon). This included coordinating the development of the DSM measure list and gathering all data necessary to perform the analysis. The analysis required extensive, iterative analytical work and continuous collaboration among the FEECA utilities to ensure that it was comprehensive. Tr. 63-64 (Koch).

First, to disaggregate the load forecast, Nexant collected utility load forecast data, relevant customer segmentation and end-use consumption data, and supplemented this with existing secondary data to create a disaggregated utility load forecast broken out by customer sector and segment, as well as by end-use and equipment type. Tr. 321-22 (Herndon). This disaggregated forecast, which was calibrated to the overall utility forecast, formed the basis for the development of market potential. *Id*.

Second, Nexant worked collaboratively with the FEECA Utilities to develop a comprehensive list of DSM technologies currently commercially available in Florida. The measure identification process was robust and resulted in a comprehensive set of unique energy efficiency ("EE"), demand response ("DR"), and demand-side renewable energy ("DSRE") measures that fully addressed DSM opportunities across all electric energy-consuming end-uses at residential, commercial, and industrial facilities in the FEECA Utilities' service territories. Tr. 323-35 (Herndon); Ex. 33 (FEECA Utilities Ex. JH-9). The FEECA Utilities shared their draft measure list with SACE and considered input from SACE. Notably, SACE's input resulted in no additions or revisions to the list, given that all of SACE's proposed measures were already included or otherwise considered in the FEECA utilities draft measures list. TR. 64 (Koch); Tr.

[4] Nexant also performed the Economic Potential ("EP") and Achievable Potential ("AP") for some of the other FEECA utilities.

323 (Herndon). For all measures included in the study, Nexant developed estimates of energy and demand savings, useful life, and incremental cost. Tr. 325 (Herndon).

Finally, using the disaggregated utility load forecast and the DSM measure impacts, Nexant analyzed the TP for the application of all measures to each utility's retail customers. The methodology, source of data, and assumptions used to develop the TP for each of the EE, DSM, and DSRE measures are summarized in the direct testimony of FEECA utilities' witness Herndon. Tr. 326-333 (Herndon).

No party submitted testimony in opposition to the TP studies performed by Nexant, or otherwise presented evidence that specific, technically feasible measures, with Florida measurable demand and energy savings impacts, were omitted and should have been included. In fact, SACE ultimately side-stepped the entire topic by proposing a DSM GWh Goal that relied on *no* Florida TP study at all, but rather reflected an arbitrary percentage of electric sales, an approach previously considered and rejected by the Commission in the 2004 and 2009 DSM Goals dockets.[5] Therefore, the record supports a finding that the TP studies performed by Nexant on behalf of all the FEECA utilities are adequate and consistent with Section 366.82(3), F.S.

B. Cost-Effectiveness Tests

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.?

***FPL Position**: Yes. In developing its proposed DSM Goals, FPL used the Participant screening test to analyze the potential cost-effectiveness of DSM measures. The Participant screening test fully accounts for all potential benefits and costs that are received and/or incurred by a potential participant in a DSM measure. Only those measures which pass the Participant screening test have been included in FPL's proposed Goals. (*Koch, Whitley*)*

[5] *See* Footnote 1, *supra*.

In developing DSM Goals, FEECA requires the Commission to consider the costs and benefits to customers participating in a measure. *See* § 366.82(3)(a), F.S. To meet this requirement, the Commission's DSM Cost-Effectiveness Manual, adopted by Rule 25-17.008, F.A.C., prescribes that the Participant test be used to measure the costs and benefits to participating customers.[6]

As required by the Commission's DSM Cost-Effectiveness Manual, FPL utilized the Participant test, in conjunction with other preliminary economic screening tests, in its economic evaluation of DSM measures. Tr. 159 (Whitley). The purpose of the Participant test is to determine if it makes economic sense for an individual customer to participate in a specific DSM measure. *Id*. The aptly-named Participant test focuses solely on the perspective of a potential participant in regard to a DSM measure. Tr. 161 (Whitley). The Participant test accounts for all potential benefits from participating in a DSM measure and also accounts for all the potential costs that would be incurred by a customer who chooses to participate. *Id*.; Ex. 7 (FPL Ex. AWW-2).

Consistent with the Order Establishing Procedure, every DSM measure identified in the TP study was evaluated with two separate economic screening paths: one examined measures using the Participant test and RIM test, and the other examined measures using the Participant test and TRC tests.[7] Tr. 151, 163 (Whitley). The paths of the cost-effectiveness screening diverge depending on if the RIM test or the TRC test is used as the primary determinant of cost-effectiveness from the utility's perspective. Tr. 163 (Whitley). In both cases, there are four overall steps in the screening process. The details of these steps and how they differ from test to

[6] *See In Re Amendment of Rule 25-17.008, F.A.C., pertaining to Conservation and Self-Service Wheeling Cost Effectiveness Data Reporting Format*, Docket No. 891324-EU, Order No. 24745, p. 19 (FPSC July 2, 1991).

[7] Each path also utilized a years-to-payback screening criterion as the final step, as discussed below in Issue No. 7.

test are summarized by FPL witness Whitley. Tr. 164 (Whitley). Only measures that passed *both* the Participant test and RIM test, or the Participant test and TRC test, were carried forward to the subsequent steps and to determining Achievable Potential ("AP"). Tr. 169 (Whitley).

Although SACE disagreed with some of the costs and benefits that were included/excluded from the RIM and TRC tests, which is addressed under Issue No. 3 below, no intervenor submitted any evidence in opposition to or otherwise challenged FPL's application of the Participant test. Because FPL's proposed goals reflect DSM measures that passed the Participant test, Tr. 159 (Whitley), and because the Participant test accounts for all the benefits as well as all the costs that accrue to participants in a DSM measure, Tr. 161 (Whitley), FPL's proposed DSM goals adequately reflect the costs and benefits to customers participating in DSM measures as required by Section 366.82(3)(a), F.S.

Issue 3: Do the Company's proposed goals adequately reflect the costs and benefits to the general body of ratepayers as a whole, including utility incentives and participant contributions, pursuant to Section 366.82(3)(b), F.S.?

***FPL Position**: Yes. FPL's proposed goals reflect the RIM 352 MW Summer MW portfolio as measures that passed the RIM screening test and the Participants test, accounting for all of the benefits and costs by all of FPL's customers, both participants and nonparticipants alike. The costs and benefits to the general body of customers are also assessed through FPL's subsequent Integrated Resource Planning ("IRP") work, resulting in the lowest levelized system average electric rate for all customers. (*Koch, Whitley, Sim, Herndon, Deason*)*

(a) System Forecasts and Assumptions

Beginning in 2018 and continuing into the first quarter of 2019, FPL undertook a several-month process to determine its resource plan for use in the 2019 DSM Goals filing, as well as all other 2019 analyses, including the 2019 Ten Year Site Plan ("Site Plan"). Tr. 146 (Whitley). The assumptions used in FPL's planning process were developed in late-2018 and early 2019 and accurately represent a current projection of FPL's system. *Id*.

There are two important reasons FPL used its most recent planning process to develop its DSM goals. First, the Commission's DSM Goals Rules require that "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.*" Rule 25-17.0021(3), F.A.C. (emphasis added). Accordingly, FPL based its proposed DSM Goals upon its most recent planning process to comply with the Commission's DSM Goals Rules. Tr. 146-47 (Whitley). Second, it is important for a utility to use its own resource planning process while setting DSM Goals, or performing the analysis of any resource option, because each utility has its own specific characteristics that can alter the timing and magnitude of its resource needs, and can influence the cost-effectiveness of resource options. Tr. 147 (Whitley).

FPL updated a number of key forecasts and assumptions in late 2018 for the 2019 resource planning work, including FPL's DSM Goals analyses. Tr. 155 (Whitley); Tr. 215 (Sim). These forecasts and assumptions are consistent with those used for FPL's 2019 Site Plan, 2019 Standard Offer Contract, 2020 Solar Base Rate Adjustment (SoBRA), and 2020/2021 SolarTogether. *Id.* As FPL witness Dr. Sim explained, current forecasts and assumptions have dramatically changed compared to the forecasts and assumptions used in the 2009 and 2014 DSM Goals dockets, which have significantly decreased the cost-effectiveness of DSM measures for customers on FPL's system. Tr. 211-12 (Sim). The primary drivers reducing the cost-effectiveness of DSM (whether evaluated under the RIM test or the TRC test) include the following:

- Fuel Cost Forecasts. There has been a steady, and continuing, decrease in the forecasted cost of natural gas when examining the forecasts from the two most recent DSM Goals dockets and the forecast for the current docket. Over the ten-year period of 2009 to 2019, the forecasted cost of natural gas for the year 2020 has decreased by almost 80%, and the forecasted cost of natural gas for the year 2029 has decreased by more than 70%. This reduction in natural gas costs is very

beneficial for FPL's customers; however, it also significantly reduces the potential fuel savings benefit from DSM. Tr. 216-19 (Sim).

- Efficiency of FPL's Generating Units. The efficiency at which FPL's fleet of gas-fueled generating units (fleet) turns fuel into electricity, as measured by system average heat rates (BTU/kWh), has significantly improved and continues to improve. In the ten-year period from 2009 to the present, FPL's fleet has improved the efficiency with which it burns natural gas by approximately 15%. As a result, FPL's system is not only using natural gas that costs much less, but also is facing much lower CO_2 compliance costs than when prior DSM Goals were set, FPL's system is also burning less gas per each kWh it produces for its customers. Consequently, the fuel cost and compliance cost savings benefit that a DSM kWh reduction could potentially offer have been further reduced by these efficiency improvements of FPL's fleet. Tr. 222-24 (Sim).

- Forecasted Growth in Net Energy Load (NEL). As required by the Commission's DSM Goals Rules, FPL's forecasted NEL (MWh) included the impacts of energy efficiency from Codes and Standards. *See* Rule 25-17.0021(3). The projected NEL has significantly decreased as a result of the steadily growing impact of Codes and Standards on the amount of energy a utility will need to produce to serve its customers. Over the ten-year period from 2009 to 2019, the projected FPL NEL for the year 2029 has decreased by almost 29% due to the forecasted MWh reduction impact of the Codes and Standards. Because FPL will be serving fewer MWh annually due to these Codes and Standards, this further lowers the potential benefits of kWh reductions from utility DSM. However, the Codes and Standards will deliver truly significant amounts of energy efficiency to FPL's customers with 12,049,520 MWh of energy savings projected for 2029. Tr. 224-28 (Sim).

- Forecasted Growth in the Peak Load (MW). As required by the Commission's DSM Goals Rules, FPL's forecasted peak load (MW) included the impacts of energy efficiency from Codes and Standards. *See* Rule 25-17.0021(3). The Codes and Standards are projected to have a significant impact on FPL's forecasted peak load. FPL's current projection forecasts a reduction of 4,820 MW of peak load for the year 2029 due to the impact of the Codes and Standards. This represents an additional reduction in peak load from the Codes and Standards of approximately 30%. Over the ten-year period from 2009 to 2019, the projected reduction of FPL's peak load from Codes and Standards for the year 2029 has increased by approximately 118%. Thus, the Codes and Standards will deliver truly significant amounts of energy efficiency to FPL's customers; however, the Codes and Standards have also removed potential peak load reduction opportunities that otherwise might have been addressed by utility DSM programs. Tr. 237-40 (Sim).

- Capital ($/kW) Costs for New Generating Units. FPL's 2019 Site Plan shows a 2026 gas-fueled combined-cycle ("CC") unit, and this CC unit is being used as the "avoided unit" in this docket for the preliminary cost-effectiveness screening

of DSM measures. A comparison of the projected capital costs of the CC units from 2009 and 2014 dockets demonstrates that the projected cost of a CC unit decreased by approximately 8% from the 2009 docket to the 2014 docket, and has decreased again by approximately 26% from the 2014 docket to now. Overall, the projected cost of CC unit has decreased by approximately 32% from the 2009 DSM Goals docket. This significant decrease in the capital cost of the CC unit is again very beneficial for FPL's customers, but also reduces the potential benefits from DSM kW reductions. Tr. 230-32 (Sim).

- Costs for Securing Additional Firm Gas Transportation. In the 2009 DSM Goals docket, the projected annual cost of needed firm gas transportation due to the new 2019 CC unit was $155 million beginning in 2019. In the 2014 DSM Goals docket, the projected annual cost of needed firm gas for the 2019 CC unit had decreased to $60 million beginning in 2022. However, FPL now projects that no additional firm gas transportation will be needed if a 2026 CC unit is added to FPL's system. Once again, this decrease in FPL system costs is very beneficial for FPL's customers, but reduces the potential benefits from DSM kW reductions. Tr. 232-35 (Sim).

- Environmental Compliance Cost Forecasts. Similar to forecasted gas costs, there has been a steady and continuing decrease in projected CO_2 compliance costs. In the 2009 DSM Goals docket, the current forecasted CO_2 compliance cost ($/ton) for the year 2020 has declined from $26.85 in the DSM Goals Docket to $0. Additionally, over the ten-year period of 2009 to 2019, the forecasted CO_2 compliance cost for the year 2029 decreased by 96%. This reduction in compliance costs is very beneficial for FPL's customers; however, it significantly reduces the potential compliance cost savings benefit from DSM kWh reduction. Tr. 219-22 (Sim).

Each of these factors has greatly benefited FPL's customers, and will continue to benefit them, through lower system costs and significant amounts of energy efficiency due to the Codes and Standards. Lower system costs are very good for FPL's customers because they help keep electric rates low. Tr. 243 (Sim). However, these lower system costs automatically result in decreasing the kWh and kW savings benefits from utility DSM programs. *Id*. As explained by FPL witness Dr. Sim, the estimated net impact of these factors is to reduce the projected benefits of DSM by slightly more than 33% compared to what the projected benefits were the last time DSM Goals were set in 2014. Tr. 243 (Sim). This is a very significant reduction in the potential benefits of DSM which, in turn, leads to fewer cost-effective DSM measures and lower DSM

Achievable Potential ("AP") values. Tr. 241-43 (Sim). Notably, neither of the SACE witnesses dispute or even address the fact that the cost-effectiveness of utility DSM, whether evaluated by the RIM or TRC tests, has been steadily declining for years or that it is continuing to decline. Tr. 1221-23 (Sim).

(b) Preliminary Economic Screening Tests

FEECA and the Commission's DSM Goals Rules require that the numeric goals established for each utility be cost-effective.[8] Gauging the effects on customers' electric rates is instrumental in determining how a DSM measure affects all utility customers and whether the measure is cost-effective as required by FEECA and the Commission's DSM Goals Rules. Tr. 162 (Whitley). To ensure that the DSM Goals are cost effective, the Commission's DSM Cost-Effectiveness Manual, adopted by Rule 25-17.008, F.A.C., prescribes that the RIM, TRC, and Participant tests to be used to measure the costs and benefits of DSM measures.

Consistent with the Commission's Order Establishing Procedure and DSM Cost-Effectiveness Manual, FPL evaluated DSM measures utilizing both the RIM and TRC tests (coupled with the Participant test discussed above). Tr. 159 (Whitley). FPL screened individual measures using each of these tests against its next planned generation addition (*i.e.*, the soonest addition that could be avoided or deferred by DSM) – a 2026 CC unit. Tr. 157-59 (Whitley). The intent of the RIM and TRC tests is to determine whether it might be economically beneficial to customers if FPL were to offer the DSM measure being evaluated. Tr. 162 (Whitley). The

[8] *See* § 366.81, F.S. ("Legislature finds and declares that 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) (emphasis added); *see also* Rule 25-17.0021(1), F.A.C. ("The Commission shall establish numeric goals for each affected electric utility . . . 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 over a ten-year period") (emphasis added).

RIM and TRC tests both fully account for the same potential DSM-related benefits.[9] Tr. 162 (Whitley); Tr. 214 (Sim).

While both tests include identical benefits, only the RIM test accounts for all of the relevant DSM-related costs that will be incurred by a utility's customers (both DSM participants and non-participants). Tr. 162 (Whitley). The intent of the RIM test is to measure the effect of a DSM measure on FPL's electric rates, which rates impact both participants and non-participants. TR. 159 (Whitely). FPL submits that the RIM test coupled with the Participant test is the appropriate method for setting DSM Goals, because it results in the lowest electric rates for all customers, both DSM participants and non-participants, and ensures that no cross-subsidization will occur from implementing DSM measures and programs. Tr. 162 (Whitley).

The intent of the TRC test is supposedly to measure the cost of a DSM measure to the utility as a whole. Tr. 159 (Whitley). However, the TRC test fails to properly analyze the costs of a DSM measure for several reasons. First, the TRC test "double-counts" the participant costs, as they have already been accounted for when using the Participant test. Tr. 161 (Whitley). Second, the TRC test does not include incentive payments in its cost calculation. Tr. 161 (Whitley). FEECA was amended in 2008 to require such costs to be recognized.[10] These costs represent a significant portion of the total cost of implementing a DSM measure by a utility, which is recovered from *all* customers (both DSM participants and non-participants) through the Energy Conservation Cost Recovery ("ECCR") Clause. Tr. 161 (Whitley); Tr. 66 (Koch). Third, and most importantly, the TRC test does not include the impact of a DSM measure on a utility's electric rates. Tr. 161-62 (Whitley). This impact comes from unrecovered revenue

[9] As discussed above, the potential benefits have significantly decreased for DSM resources on FPL's system, which equally impacts the economic potential of DSM measures under the RIM and TRC tests.

[10] The 2008 amendment by s. 39, ch. 2008-227, effective July 1, 2008.

requirements[11] resulting from a DSM measure's savings. *Id*. All else equal, if these unrecovered revenue requirements are not offset by an equal amount of system benefits, the measure will result in higher electric rates for all customers including participating and non-participating customers. *Id*. Thus, the TRC screening test does not appropriately assess the cost impacts of DSM measures on the general body of customers as a whole, as required by FEECA. *See* § 366.62(3)(b).

SACE witness Grevatt argued that the RIM test is not a cost-effectiveness test because it includes lost revenue to the utility (*i.e.,* the unrecovered revenue requirements), which Mr. Grevatt claimed is not a cost. Tr. 937 (Grevatt). Although SACE witness Grevatt conceded that lost revenues from energy efficiency programs could result in increased rates, he contended that a rate impact assessment is different from a cost-effectiveness assessment. Tr. 937-38 (Grevatt). Mr. Grevatt argued that the "RIM test is really a test of impact on those customers who choose not to participate in an efficiency program." Tr. 938 (Grevatt). According to SACE, only the TRC test should be used to set DSM Goals. Tr. 936 (Grevatt). To FPL's knowledge, no jurisdiction has agreed with Mr. Grevatt's attempted novel mischaracterization of RIM as not being a legitimate "cost-effectiveness" test, which would be contrary to decades-long industry and Commission practice.

SACE's opposition to the RIM test and argument that only the TRC test should be used are both fundamentally flawed for several reasons. First and foremost, SACE disregards that the RIM test has been formally adopted by the Commission's DSM Cost-Effectiveness Manual as an appropriate cost-effectiveness test for setting DSM Goals. *See* Rule 25-17.008, F.A.C. Notably, and contrary to Mr. Grevatt's assertion that lost revenues are not a cost, the order adopting the

[11] "Unrecovered revenue requirements" is a more precise term for "lost revenues," which is occasionally used in testimony and Commission orders cited herein.

Commission's DSM Cost-Effectiveness Manual expressly mandates that "lost revenues are considered *to be a cost* when calculating the benefit-cost ratio" from a rate impact standpoint.[12]

Second, SACE ignores that the Commission has successfully relied on the RIM test for decades to set DSM Goals. Tr. 1048 (Deason). The Commission's DSM Cost-Effectiveness Manual appropriately gives the Commission discretion to evaluate the various tests and use them accordingly. However, the Commission historically has primarily relied upon the RIM test (in conjunction with the Participant's test) to set appropriate DSM Goals. Tr. 1048-49 (Deason).

Third, the Commission has previously considered and rejected SACE's argument that the TRC test singularly satisfies the requirements of FEECA and that FEECA requires the use of the TRC test alone to set DSM Goals.[13] The Florida Supreme Court has similarly rejected the argument that the TRC test should be used to set DSM Goals to the exclusion of the RIM test. *See Legal Environmental Assistance Foundation Inc. v. Clark*, 668 So.2d 982 (Fla. 1996).

Fourth, the TRC test does not account for a measure's effect on the electric rates for a non-participating customer (and only partially so for a participating customer). Tr. 159 (Whitley). Thus, the TRC test does not consider the "costs and benefits to the general body of ratepayers as a whole," as required by Section 366.82(3)(b), F.S. In Florida, the phrase "costs and benefits to the general body of ratepayers as a whole" has its roots in determining rates that are fair and which do not pit the interests of one group of customers against those of another, which could result in cross-subsidies. Tr. 1051 (Deason). Its application results in the protection

[12] *See In Re Amendment of Rule 25-17.008, F.A.C., pertaining to Conservation and Self-Service Wheeling Cost Effectiveness Data Reporting Format*, Docket No. 891324-EU, Order No. 24745, p. 1 (FPSC July 2, 1991) (emphasis added).

[13] In rejecting SACE's same argument in the 2014 DSM Goals Docket, the Commission unequivocally held that consideration of both the RIM test and TRC test is necessary to fulfill the requirements of FEECA. *See In re: Commission review of numeric conservation goals*, Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, pp. 11-13, 21-22 (FPSC Dec. 16, 2014) (quoting *In re: Commission review of numeric conservation goals*, Docket No. 20080407-EG, Order No. PSC-2009-0855-FOF-EG, p. 15 (FPSC Dec. 30, 2009)).

of all customers as a whole. *Id.* Only the RIM test ensures that all customers in the general body of customers are protected from potential cross-subsidies between participants and non-participants in DSM programs. *Id.*

Finally, although SACE argues that DSM Goals should be based on the TRC test and not the RIM test, SACE witness Grevatt completely abandons the TRC test in recommending a single DSM Goal based on a percentage of sales discussed in Issue 8 and 9 below. Tr. 936, 972, 980-81 (Grevatt); Tr. 1187 (Whitley). SACE cannot credibly argue that only the TRC test meets the requirements of FEECA and, at the same time, fail to use the TRC test (or any cost-effectiveness test) in recommending its DSM Goal. Therefore, SACE's arguments in opposition to the RIM test and in support of the TRC test as the appropriate test to meet the requirements of Section 366.82(3)(b), F.S., are meritless.

Only the RIM test, in conjunction with the Participant test, fully captures all of the costs and benefits of a DSM measure when applied to the entirety of FPL's customers, both participating and non-participating. Tr. 162, 166 (Whitley). Thus, the use of these two tests meets the statutory requirement to consider "the costs and benefits to the general body of rate payers as a whole, including utility incentives and participant contributions." *See* § 366.82(3)(b), F.S. Because FPL's proposed DSM goals reflect measures that pass both the Participant and RIM screening tests, Tr. 162 (Whitley), FPL's proposed DSM goals adequately reflect the costs and benefits to the general body of customers as required by statute.[14]

(c) Non-Energy Benefits

[14] Importantly, the costs and benefits to the general body of customers are also assessed by FPL in the subsequent system analysis stage of its IRP work and reflected in FPL's proposed Goals. In that IRP stage, various DSM portfolios and a supply-only portfolio were analyzed to determine which would be the best portfolio for FPL's customers. FPL's proposed Goals reflect the RIM 352 Summer MW portfolio, which results in the lowest levelized system average electric rate for all customers. Tr. 172-80 (Whitley). This step in the analysis is discussed in more detail below under Issues 8 and 9.

SACE presented testimony that "non-energy benefits" should be reflected in the cost-effectiveness calculations. Specifically, SACE witness Grevatt asserts that FPL failed to include natural gas savings, water savings, or any of a range of unspecified non-energy benefits in its TRC test. Tr. 965 (Grevatt). SACE's concept of adding non-energy benefits, or "externalities" as they are also called, is inappropriate and should be rejected consistent with prior Commission precedent.

The Order adopting the Commission's DSM Cost-Effectiveness Manual defines externalities as "costs or benefits of market transactions not reflected in price." *See In Re Amendment of Rule 25-17.008, F.A.C., pertaining to Conservation and Self-Service Wheeling Cost Effectiveness Data Reporting Format*, Docket No. 891324-EU, Order No. 24745, p. 2 (FPSC July 2, 1991). The Order goes on to direct that costs and benefits of externalities should not be included in the RIM test and should be included in the TRC test only if "*reasonably quantifiable*." *Id*. (emphasis added).

FPL is not a natural gas or water utility and, therefore, is unable to quantify and include potential natural gas savings or water savings in the TRC test. Tr. 1198-99 (Whitley). SACE has failed to identify with any specificity the "range of non-energy benefits" and, therefore, it is entirely unknown what these benefits are or whether they can be quantified. Indeed, SACE provided no explanation for how any of the costs and benefits of the externalities should be calculated or quantified. Accordingly, because the costs and benefits of the externalities cannot be reasonably quantified, they cannot be included in the TRC test pursuant to the Commission's DSM Cost-Effectiveness Manual.

To FPL's knowledge, externalities have never been recognized by the Commission in DSM goalsetting proceedings. Tr. 1199 (Whitley). In fact, the Commission has previously

considered and rejected proposals to include the costs and benefits of the externalities where they were not reasonably quantified. For example, in the 1994 DSM Goals docket, the Commission rejected the proposal to include non-energy benefits in the DSM cost-effectiveness tests because the benefits were either non-quantifiable or else not quantified in the record.[15] Likewise, in the 2014 DSM Goals docket, the Commission rejected the Sierra Club's proposal to include non-energy benefits in the DSM cost-effectiveness tests.[16] Similar to the 1994 and 2014 DSM Goals dockets, the so-called non-energy benefits raised by SACE are non-quantifiable and not supported by the record in this docket. For these reasons, the Commission should reject this unquantified recommendation.

(d) DSM Cost Assumptions

SACE witness Grevatt makes several flawed arguments to suggest that the economic potential of DSM measures was understated in FPL's Economic Potential ("EP") study. Each of these arguments is addressed below.

SACE witness Grevatt claims that the economic potential of DSM measures used by FPL in the EP study was understated because FPL failed to assign economic savings potential to measures that could cost-effectively provide levels of efficiency above baseline when the most efficient alternative measure used to estimate technical potential was not cost-effective. Tr. 958-62 (Grevatt). In the TP where there are two competing measures, such as the pool pump measures cited by Mr. Grevatt, the most efficient of these appropriately received 100% of the available TP MW and GWh and the lesser measure(s) appropriately received zero TP MW and GWh. Tr. 1157 (Koch). Turning to the EP, FPL reported the count of these surviving measures

[15] *See In Re: Adoption of Numeric Conservation Goals and Consideration of National Energy Policy Act Standards*, Docket No. 19930548-EG, Order No. PSC-1994-1313-FOF-EG, p. 16 (FPSC Oct. 25, 1994).

[16] *See, In re: Commission review of numeric conservation goals*, Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, p. 21 (FPSC Dec. 16, 2014)

along with the associated TP MW and GWh values. FPL properly did not redistribute to a surviving measure the TP MW and GWh from a failing competing measure. *Id*. Therefore, FPL reported the same MW and GWh values for each EP-surviving measure as calculated in the TP step. *Id*. However, this has no material impact on FPL's proposed Goals, because the only truly meaningful result of the EP study is the list of measures that survive the screening and move on to the AP step in the analysis. This list of less-efficient measures and their associated savings are captured in the AP step. *Id*.

SACE witness Grevatt also claims that FPL's non-incentive costs for LED light bulbs and Low Flow Shower Heads are unreasonably high. Tr. 962-63 (Grevatt). However, as SACE witness Grevatt concedes, these non-incentive costs have no effect because neither of these two measures could survive the EP cost-effectiveness screening regardless of the amount of their associated non-incentive costs because their payback is less than two years. Tr. 963 (Grevatt); Tr. 1158 (Koch). Therefore, SACE witness Grevatt's point is moot because neither measure made it to the AP step due to failing the last EP screening step that incorporates the two-year payback discussed below in Issue 7. Tr. 1158 (Koch).

SACE witness Grevatt alleges that FPL incorrectly used only average values for line losses when converting the impacts of DSM from customer savings at the meter to savings at the generator and, instead, should have used marginal line loss rates. Tr. 965 (Grevatt). Despite the fact that SACE witness Grevatt did not explain or clarify what he meant by "marginal line losses," FPL witness Whitley explained that FPL used the most recent actual system line loss values based on real-world performance of its electric system. Tr. 1196 (Whitley). Because energy line losses vary with the levels of electric load experienced over the course of a year, FPL

appropriately used average annual line losses to adjust the energy impact of DSM. Tr. 1197 (Whitley).

Additionally, at hearing, certain of FPL's administrative and measure cost assumptions were questioned. Tr. 95-97 (Koch). However, SACE improperly attempted during cross-examination to correlate the DSM measure administration costs with the total measure cost and/or the cost to install the measure (*i.e.*, SACE apparently believes that a low cost measure or installation price should automatically mean a lower administrative cost, and vice versa). *Id*. However, as FPL witness Koch explained, FPL's administration costs are based on the typical cost to administer FPL DSM programs as they exist today and have nothing to do with the measure cost or installation cost of the measure. *Id*.

FPL has a long track record of effectively controlling costs across the organization, including with respect to its DSM programs. As a result, FPL customers' bills are the lowest in the state and 30% below the national average. Tr. 59-60 (Koch). Further, it should be noted that the Commission reviews FPL's costs as part of approving FPL's ECCR cost recovery factors and through extensive audits each year, and those costs have consistently been found to be prudent and reasonable and approved for recovery.

(e) Conclusion

In sum, FPL's cost-effectiveness screening steps rely upon updated forecasts as well as benefit and cost figures that are both reasonable and specific to FPL's system. Tr. 146 (Whitley). FPL's proposed goals reflect measures that pass the RIM test, which means the complete set of benefits and costs were considered for both participants and non-participants, and not just the subset of DSM costs that is considered in the TRC test. Tr. 162, 166 (Whitley).

Therefore, FPL's proposed goals accurately and adequately reflect the costs and benefits to the general body of customers as contemplated by Section 366.82(3)(b), F.S.

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(3)(c), F.S.?

***FPL Position**: Yes. Cost-effective incentives for participating customers are reflected in FPL's proposed Goals because they are included and considered in the Participant and RIM screening tests. There is no need to establish incentives for utilities in this proceeding. (*Koch, Whitley, Sim, Deason*)*

As discussed above in Issue Nos. 2 and 3, all of the benefits and costs of incentives paid to customers to promote energy efficiency and demand-side renewables are reflected in the Participant test and the RIM test (but not in the TRC test). Because FPL's proposed DSM Goals reflect measures that pass both the Participant and RIM tests, these considerations are adequately reflected in FPL's proposed DSM Goals. Tr. 162, 166 (Whitley).

Section 366.82(3)(c), F.S., instructs that the Commission shall take into consideration, among other things, the need to promote both customer and utility-owned efficiency and DSRE systems. Importantly, however, the Florida Legislature has found and declared that "it is critical to utilize the most efficient and *cost-effective* demand-side renewable systems and conservation systems in order to protect the health, prosperity, and general welfare of the state and its citizens." *See* § 366.81, F.S. (emphasis added). Thus, the Florida Legislature has concluded that incentives to promote customer-owned or utility-owned energy efficiency and DSRE systems must be cost-effective. Although incentives are authorized by FEECA, FPL did not propose incentives for the promotion of energy efficiency or DSRE systems because energy efficiency and DSRE systems are not cost-effective under the RIM and Participant tests. Tr. 84, 101-02 (Koch).

As explained above, there have been significant increases in mandated energy efficiency as a result of changes to Codes and Standards. The effect of these Codes and Standards is positive for overall energy efficiency in Florida because it means that 100% of customers are subject to governmental requirements to install higher efficiency end-uses, rather than just those that a utility could induce through voluntary DSM programs. Tr. 56 (Koch). However, these mandated improvements also have the effect of significantly reducing the amount of incremental efficiency benefits achievable from a participating customer installing even more efficient end-use equipment. Tr. 71-73 (Koch). As a result, utility-provided incentives for traditional energy efficiency measures no longer make sense because they are not cost-effective under the RIM and Participant tests. Tr. 84, 101-02 (Koch).

While utility-provided incentives for traditional energy efficiency measures no longer make sense because they are not cost-effective, they have been one of the sources of assistance to low income customers. Tr. 84 (Koch). In recognition of these changes, and in response to prior Commission directives to encourage offerings of energy efficiency measures to low-income customers, FPL is proposing to retain and expand its existing Low Income program. Although this program is not cost-effective, if the Commission continues to believe low-income customers should receive energy efficiency measures, FPL is willing to provide such assistance to this vulnerable group. *Id*.

FPL's proposed DSM Goals fully comply with the language and intent of FEECA and Rule 25-17.0021, *see* Tr. 58, 66-70 (Koch), are consistent with this Commission's precedent, *see id*.; Tr. 1043-84 (Deason), embody good public policy as testified to by FEECA Utilities witness Deason, *see* Tr. 1043-84 (Deason), and will result in the lowest levelized system average electric rates for customers, *see* Tr. 176 (Whitley); Ex. 15 (FPL Ex. AWW-10). Accordingly, FPL's

position is that incentives for energy efficiency and demand-side renewable systems are not needed at this time. FPL's goals do include incentives or credits for cost-effective demand reduction measures.

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.?

***FPL Position**: Yes. FPL accounted for forecasted CO_2 compliance costs in a sensitivity screening analysis. Forecasted CO_2 compliance costs are currently projected to be zero until the late 2020s when non-zero costs begin to appear and then gradually increase over time. FPL's sensitivity screening analysis demonstrated that the number of measures passing changed only slightly when CO_2 compliance costs were included. Accordingly, FPL's proposed Goals adequately reflect these forecasted costs. (Whitley)*

FPL accounted for projected compliance costs for sulfur dioxide (SO_2) and nitrogen oxides (NO_x) in both the RIM and TRC tests. Tr. 160 (Whitley). However, consistent with the direction provided in the Order Establishing Procedure for this docket (Order No. PSC-2019-0062-PCO-EG), FPL is not accounting for projected CO_2 compliance costs in these screening tests in FPL's base case analyses. *Id*. Rather, FPL is analyzing the impact of projected CO_2 compliance costs in sensitivity screening analyses – with CO_2 and without CO_2.[17] *Id*. The results of FPL's forecasted environmental costs are provided in Exhibit 15 (FPL Ex. AWW-10).[18] Notably, no intervenors submitted testimony in opposition to FPL's forecasted environmental costs reflected in FPL's proposed DSM Goals.

[17] The CO_2 compliance cost is a "composite" cost forecast based on separate CO_2 compliance cost forecasts from FPL and Duke Energy Florida ("DEF"). The creation of a composite CO_2 forecast allows DEF, FPL, and Orlando Utilities Commission ("OUC") (the only FEECA utilities performing a with CO_2 sensitivity analysis) to utilize a single CO_2 compliance cost forecast in the DSM Goals analyses as directed in Order No. PSC-2019-0062-PCO-EG. Tr. 168 (Whitley).

[18] The SO_2 compliance costs are contained in the fuel costs included in Exhibit 10 (FPL Ex. 5).

The number of measures passing the RIM test and the TRC test changed only minimally when projected CO_2 compliance costs were included. *See* Exs. 8 and 9 (FPL Exs. AWW-3 and (AWW-4). From the "starting point" of 6,560 DSM measures, 38 measures survived the RIM screening path and 873 measures survived the TRC screening path using the w/o CO_2 cost assumption. *Id*. When CO_2 costs were included, 40 measures survived the RIM screening path and 999 measures survived the TRC screening path. *See* Ex. 8 (FPL Ex. AWW-3). Due to the instruction provided in Order No. PSC-2019-0062-PCO-EG, FPL used the DSM measures that survived without CO_2 screening for determining its proposed DSM Goals. For these reasons, FPL submits that its proposed Goals adequately reflect forecasted environmental costs.

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

> ***FPL Position**: In addition to the Participant test, the Commission should use the RIM economic screening test to set goals pursuant to Section 366.82, F.S., consistent with its prior decisions and rationale for doing so. FPL's proposed goals minimize rate impacts to customers and avoid cross subsidies between non-participants and participants. FPL's proposed Goals are projected to result in the lowest levelized system average electric rates. (*Koch, Whitley, Sim, Deason*)*

The record demonstrates that use of the RIM test, in conjunction with the Participant test, is the best policy choice for all of FPL's customers, both participants and nonparticipants, at every income level. As discussed in detail under Issue 3, the RIM test accounts both for the cost of incentives paid to program participants *and* the upward pressure on rates from unrecovered revenue requirements. Incentives paid to program participants are a cost of administering the program and are passed on to the general body of customers through the ECCR clause. Tr. 1046-47 (Deason). Unrecovered revenue requirements also put upward pressure on rates for the general body of customers. *Id*. Both of these extremely important considerations are ignored by

the TRC test. *Id*. Simply put, the TRC test is ill-equipped to consider the impacts on the general body of customers as a whole, as required by Section 366.82(3)(b).

As the Commission has recognized, the use of the TRC test to set goals will result in cross-subsidies between customers and could disproportionately impact low-income customers. Tr. 1047 (Deason). In the 1994 DSM Goals Proceeding, the Commission stated:

> We will set overall conservation goals for each utility based on measures that pass both the Participant and RIM tests.... We find that goals based on measures that pass TRC but not RIM would result in increased rates and would cause customers who do not participate in a utility DSM measure to subsidize customers who do participate.

In Re: Adoption of Numeric Conservation Goals and Consideration of National Energy Policy Act Standards, Docket No. 19930548-EG, Order No. PSC-1994-1313-FOF-EG, p. 22 (FPSC Oct. 25, 1994). Later in that same order, the Commission explained:

> All customers, including low-income customers, should benefit from RIM-based DSM programs. This is because RIM-based programs ensure that both participating and non-participating customers benefit from utility-sponsored conservation programs. Additional generating capacity is deferred and the rates paid by low-income customers are less than they otherwise would be.

Id., p. 45.

SACE witness Grevatt acknowledges that cross-subsidies should be avoided, but he is dismissive of cross-subsidization concerns when it comes to setting conservation goals. Tr. 940 (Grevatt). As an excuse to disregard cross-subsidizations in setting DSM Goals, he argues that cross-subsidies result from other regulatory decisions (including decisions on supply-side alternatives). *Id*. As explained by FEECA Utilities witness Deason, Mr. Grevatt's argument is inconsistent with Florida's regulatory framework, and his reliance on supply-side alternatives is not factually correct. Tr. 1057-59 (Deason). Moreover, Mr. Grevatt's apparent belief that cross-subsidies can be ignored when setting DSM Goals is directly contrary to the language of the

FEECA statute. Section 366.81, F.S., requires the Commission, when establishing DSM Goals, to "not approve any rate structure which discriminates against any class of customers on account of the use of such facilities, systems, or devices." The Florida Supreme Court has interpreted this language to require the Commission to consider the rate impacts on all customers, both participants and non-participants. *See Legal Environmental Assistance Foundation Inc. v. Clark*, 668 So.2d 982 (Fla. 1996). Accordingly, and contrary to Mr. Grevatt's position, the Commission simply cannot ignore the statutory requirement to avoid cross-subsidies when setting DSM Goals.

SACE also argues that the RIM test is not a cost-effectiveness test because it includes lost revenue to the utility, which Mr. Grevatt claims is not a cost. Tr. 937 (Grevatt). According to SACE, only the TRC test should be used to set DSM Goals. Tr. 936 (Grevatt). As explained in detail under Issue 3, SACE's arguments in opposition to the RIM test and in favor of the TRC test are both fundamentally flawed and must be rejected. Furthermore, although SACE argues in favor of the TRC test, SACE completely abandons the TRC test and, instead, recommends a single DSM Goal based on a simple arbitrary percentage of sales without any cost-effectiveness analysis, an approach rejected by the Commission in prior DSM Goals proceedings.

In a further attempt to support the TRC test, SACE alleges that no other state relies on the RIM test to screen out DSM measures. Tr. 944 (Grevatt). However, what other states may or may not do is irrelevant when addressing the question of the appropriate cost-effectiveness test to use in Florida. Tr. 1054-55 (Deason). What is relevant is the direction provided by Florida Statutes, Florida Commission Rules, and a decision of the Florida Supreme Court. The Commission has consistently based its decision to use the RIM test on this authority and precedent. *Id*. In direct terms, the Commission has applied the RIM test based on its

determination and policy conclusion that DSM measures should be cost-effective to *all* utility customers, whereas SACE witness Grevatt would simply ignore this aspect of cost-effectiveness by defining it away. *Id.*

Further, Florida's historical reliance on the RIM test has proven both appropriate and beneficial for Florida customers. Tr. 1055 (Deason). The success of the RIM test is illustrated by the following excerpt from the Commission's December 2018 Annual Report on FEECA:

> FEECA has been successful in reducing the growth rates of weather-sensitive peak electric demand and conserving expensive fuel resources. Since its inception, FEECA utility-sponsored DSM programs have cumulatively saved 7,863 MW of summer peak demand and 7,285 MW of winter peak demand, referenced in Table 3. This reduction in peak demand has helped offset the use of peaking units that rely on expensive fuel sources and deferred new generating capacity. In 2017, FEECA DSM programs saved 210 gigawatt-hours (GWh), enough electricity to power approximately 15,583 homes for a year.

Tr. 1055-56 (Deason). These accomplishments were achieved by devoting substantial resources ($3.9 billion for the years 2007-2017 for the five IOUs subject to FEECA) in a cost-effective manner that has helped maintain reliability, save energy, reduce the need for very large amounts of new generating plants, *and* minimize rate impacts. Tr. 1055-56 (Deason).

FPL acknowledges that Commission's DSM Cost-Effectiveness Manual does not prescribe the use of one test to the exclusion of another, and that the Commission has discretion to evaluate the various tests and use them accordingly. However, FPL submits that the RIM test coupled with the Participant test is the appropriate method for setting DSM Goals, because it results in the lowest electric rates and also ensures that no cross-subsidization will occur from implementing DSM measures and programs. Tr. 162 (Whitley). In fact, no intervenors dispute that FPL's customers would experience the lowest electric rates with DSM Goals that are based upon the RIM test.

Based on the foregoing, the Commission should use the RIM test, in conjunction with the Participant test, in setting DSM Goals pursuant to Section 366.82, F.S., consistent with its historic policy decisions and rationale for doing so. Although the Commission has the discretion to decline to use the RIM test, such a decision based on the current record before it would mean that the Commission is supporting a policy that would lead to higher electric rates and cross-subsidization for FPL customers.

C. Consideration of Free Riders

Issue 7: Do the Company's proposed goals appropriately reflect consideration of free riders?

> ***FPL Position**: Yes. FPL's proposed Goals reflect consideration of free riders, as required by Rule 25-17.0021(3), F.A.C., by using a screening process in which only DSM measures for which the participant's costs are not fully recovered in two years without an incentive payment pass. This process helps protect FPL's general body of customers from paying incentives to program participants that would already be economically motivated to participate in the program without incentives (*i.e.*, "free riders"). (*Koch, Whitley, Deason*)*

The Commission's DSM Goals Rules require that each utility's proposed numeric goals reflect consideration of, among other things, free riders. Rule 25-17.0021(3). The term "free riders" refers to the fact that certain conservation measures will be undertaken on a customer's own volition if the measure provides a sufficient financial benefit on its own, without the need for promotion or incentive provided by the customer's utility company and paid for by the general body of customers. Tr. 67-68 (Koch). However, if such a customer also receives a utility incentive, then they become a free rider. *Id*. If costs are incurred to incentivize such free riders, electric rates for the general body of customers will be higher than they need to be to achieve the same level of conservation. *Id.* As explained above, the prevailing purpose and consideration of FEECA and the Commission's DSM Goals Rules is to achieve the maximum amount of cost-effective conservation by the most efficient means. *See* § 366.81, 366.82(3)(b),

F.S.; Rule 25-17.0021(1)-(3), F.A.C. A proper recognition of free riders is necessary to achieve cost-effective DSM Goals.

The Commission has used a two-year payback criterion for decades as the threshold for the point below which a customer would be a free rider and, therefore, should not be considered eligible for an additional utility-provided incentive. Tr. 1063 (Deason). This policy has been litigated in multiple previous DSM Goals proceedings wherein the Commission has determined it was an appropriate metric for determining free riders. Tr. 69 (Koch); Tr. 1063 (Deason). In fact, the Commission reaffirmed the use of the two-year payback criterion in the 2014 DSM Goals docket, stating: "We approved goals based on a two-year payback criterion to identify free riders since 1994 and we find it appropriate to continue this policy." *See In re: Commission review of numeric conservation goals*, Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, p. 27 (FPSC Dec. 16, 2014).

The two-year payback has been consistently used since the Commission's DSM Goals decision in 1994, with a slight modification in the 2009 DSM Goals docket. Tr. 1063 (Deason). In that case, the Commission noted studies cited by an FPL witness that supported the use of a two-year payback.[19] However, the Commission elected to deviate from the two-year payback and adopted a modified two-year payback criterion in which a select number of measures that were traditionally screened out by the two-year payback were nevertheless allowed to be recognized for goal-setting. Tr. 1063 (Deason). This deviation was one of the reasons why the rate impacts of the 2009 DSM Goals were ultimately deemed to be too large. Indeed, the

[19] *See In re: Commission review of numeric conservation goals*, Docket No. 20080407, Order No. PSC-2009-0855-FOF-EG, p. 9 (FPSC Dec. 30, 2009) ("In his testimony, FPL witness Dean described the rationale for the two-year period…. He further noted that most studies place the annual return on investment necessary to incent purchase in the 40 to 60 percent range. A 50 percent figure, which represents a payback of exactly two years, is squarely in the middle of that range").

decision to depart from the two-year payback was later revisited when the Commission determined that the rate impacts of the 2009 DSM Goals Order were too great.[20]

FPL submits that the two-year payback criterion remains an effective, common-sense approach that is both reasonable and administratively efficient for meeting the requirement that Goals reflect consideration of free riders. Tr. 69 (Koch). It ensures that incentives (and their associated impact to the electric rates of non-participants) will not be provided in an unnecessary situation. Tr. 69 (Koch); Tr. 164-65 (Whitley).

FPL utilized the two-year payback screen in the final step of its preliminary economic screening. Tr. 164-65 (Whitley). FPL used the AP based on those measures that passed the RIM and TRC tests, Participant test, and the two-year payback screen (consistent with the Commission's traditional goal-setting policies) as an input to the fifth and sixth steps of the DSM Goals development process, in which various resource plans are developed and analyzed to determine the level of DSM Goals that represents an optimal mix of DSM and supply-side measures and thus minimizes the overall electric rates for all customers. Tr. 78 (Koch); Tr. 172-80 (Whitley).

SACE was the only intervenor to submit testimony in opposition to the continued use of the two-year payback. SACE witness Grevatt first argued that that the two-year payback screen assumes that all measures with a payback of two years or less will be installed and that the FEECA Utilities presented no empirical evidence to support this assumption. Tr. 946 (Grevatt). FEECA Utilities witness Deason explained that, contrary to Mr. Grevatt's assumption, the two-year payback criterion does not, nor should it, assume that 100% of all customers will adopt a measure if the payback is two years or less. Tr. 1065 (Deason). Hence, it would be impossible

[20] *See In re: Petition for approval of demand-side management plan of Florida Power & Light Company*, Docket No. 20100155-EG, Order No. PSC-2011-0346-PAA-EG (FPSC Aug. 16, 2011).

to provide empirical evidence to demonstrate results not assumed by or even envisioned by the two-year payback screen. Tr. 1067 (Deason). The two-year payback assumes that two years is a reasonable point of differentiation to predict where customers are more likely to adopt a measure, based on the measure's own inherent economic attractiveness, without additional incentives and costs on the general body of customers. Tr. 1065 (Deason). In reality, some customers will not adopt a measure regardless of its payback, while others will adopt measures with paybacks longer than two years. *Id*. Two years has been consistently used as a reasonable point to make that differentiation. Tr. 1067 (Deason).

SACE witness Grevatt next argued that the underlying purpose of utility-sponsored efficiency programs is to eliminate market barriers and that the two-year payback screen prevents this purpose from being achieved. Tr. 947-49 (Grevatt). Contrary to Mr. Grevatt's assertion, the elimination of market barriers is not the preeminent concern of FEECA and, in fact, is not even mentioned in FEECA. As explained above, the purpose of FEECA, and hence the DSM Goals and programs resulting therefrom, is to determine and implement the most efficient and cost-effective DSM programs. *See* § 366.81, F.S. The achievement of FEECA goals comes at a cost, a cost which is passed through to the general body of customers through the ECCR clause. Tr. 1068 (Deason). As FEECA Utilities witness Deason explained, it is in the public interest to achieve goals in the most efficient manner because it results in a lesser burden on the general body of customers. *Id*. If costs are incurred to incentivize customers to take action that they would have otherwise taken in their own economic interest, costs to the general body of customers are higher than they need to be to achieve the same level of conservation. *Id*.

SACE witness Grevatt also argued that the two-year payback in the EP study is unnecessary and results in a "double adjustment" because the savings from potential free riders

are already accounted for in the naturally-occurring efficiency that Nexant excluded in the TP study. Tr. 949-50 (Grevatt). Mr. Grevatt's argument has been thoroughly rebutted.

As FEECA Utilities witness Herndon made clear, there is no double counting of free riders in the EP and TP. Naturally-occurring efficiency is included in the utility load forecasts and accounts for historic energy efficiency levels. Tr. 1104 (Herndon). The TP's consideration of naturally-occurring efficiency in each utility's forecast calibrates measure parameters, such as baseline efficiency and current saturation, to align with forecasted energy trends that include *historic* customer behavior and *past* DSM program performance. *Id*. This is a necessary step to ensure that the identified TP addresses the future potential for energy efficiency and not energy efficiency already included in the utility forecast. *Id*. However, consideration of the natural-occurring efficiency included in the utility forecast assumptions does not address the likelihood of *future* free ridership. Tr. 1105 (Herndon). The two-year payback screen is needed to account for future free riders. Tr. 1105-06 (Herndon). Thus, there is no double counting of free riders as suggested by Mr. Grevatt.

Finally, SACE witness Grevatt recommended that a screen for free riders should not be applied at the goal-setting level and, instead, should only be part of program design. Tr. 949-51 (Grevatt). However, Rule 25-17.0021(3), F.A.C., requires that free riders be considered as part of the Commission's responsibility to establish goals. Thus, it is not optional as Mr. Grevatt suggests. Further, ignoring free riders during the establishment of goals would result in goals that are not the most efficient and cost-effective. Tr. 1070 (Deason). Additionally, the Commission does not design programs; the design of programs is the responsibility of the FEECA Utilities. *Id*. While the Commission reviews and ultimately approves the programs designed by the utilities, it is more of a pass/fail standard. *Id*.

FPL submits that the Commission's policy of using a two-year payback criterion to account for free riders is consistent with FEECA and Rule 25-17.0021, F.A.C. The issue of using a two-year payback criterion has been repeatedly litigated in a number of goals-setting proceedings, and arguments against the use of a two-year payback have been consistently rejected by the Commission.[21] Notably, other than criticisms and the suggestion to abandon consideration in goal-setting, the SACE witnesses did not provide any viable alternative to the two-year payback for addressing free riders. Therefore, there is nothing presented by the SACE witnesses that would justify a departure from the Commission's long-held policy on free riders and use of the two-year payback criterion. Tr. 1071 (Deason).

Ultimately, the question before the Commission is whether the two-year payback criterion remains a reasonable tool for the Commission to make the differentiation mandated by Rule 25-17.0021(3), F.A.C., between customers that will likely take action on their own and those that likely will need additional economic incentives to do so. The evidence in this case and the Commission's historical DSM decisions (including the consequences of its decision to modify the two-year payback for certain measures in 2009) support the reasonableness of the two-year payback as a tool to comply with Rule 25-17.0021(3), F.A.C., and its continued use in this docket.

D. Achievable Potential and Numeric Conservation Goals

Issue 8: What residential summer and winter megawatt (MW) and annual Gigawatt-hour (GWh) goals should be established for the period 2020-2029?

***FPL Position**: The Commission should approve the following residential Goals for the period 2020-2029 (*Koch*, *Deason*):

[21] *See, e.g., In re: Commission review of numeric conservation goals*, Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, pp. 22-25 (FPSC Dec. 16, 2014) (rejecting SACE's arguments in opposition to the two-year payback).

	Summer MW		Winter MW		Annual MWh	
Year	**Annual**	**Cumulative**	**Annual**	**Cumulative**	**Annual**	**Cumulative**
2020	24.0	**24.0**	20.7	**20.7**	12	**12**
2021	24.0	**48.1**	20.7	**41.5**	12	**23**
2022	24.0	**72.1**	20.7	**62.2**	12	**35**
2023	24.0	**96.1**	20.7	**82.9**	12	**47**
2024	24.0	**120.1**	20.7	**103.7**	12	**58**
2025	24.0	**144.2**	20.7	**124.4**	12	**70**
2026	24.0	**168.2**	20.7	**145.1**	12	**81**
2027	24.0	**192.2**	20.7	**165.9**	12	**93**
2028	24.0	**216.2**	20.7	**186.6**	12	**105**
2029	24.0	**240.3**	20.7	**207.4**	12	**116**

*****

Issue 9: What commercial/industrial summer and winter megawatt (MW) and annual Gigawatt hour (GWh) goals should be established for the period 2020-2029?

***FPL Position**: The Commission should approve the following commercial/industrial Goals for the period 2020-2029 (*Koch, Deason*):

	Summer MW		Winter MW		Annual MWh	
Year	**Annual**	**Cumulative**	**Annual**	**Cumulative**	**Annual**	**Cumulative**
2020	11.2	**11.2**	5.1	**5.1**	91	**91**
2021	11.2	**22.4**	5.1	**10.3**	91	**181**
2022	11.2	**33.6**	5.1	**15.4**	91	**272**
2023	11.2	**44.7**	5.1	**20.6**	91	**363**
2024	11.2	**55.9**	5.1	**25.7**	91	**453**
2025	11.2	**67.1**	5.1	**30.8**	91	**544**
2026	11.2	**78.3**	5.1	**36.0**	91	**635**
2027	11.2	**89.5**	5.1	**41.1**	91	**725**
2028	11.2	**100.7**	5.1	**46.2**	91	**816**
2029	11.2	**111.9**	5.1	**51.4**	91	**906**

*

FPL's proposed DSM goals are the only proposed goals in this docket that comply with Florida law, including the applicable provisions of FEECA, the Commission's DSM Goals Rules, the Commission's DSM Goals Cost-Effectiveness Manual, and the historical policy considerations that have served FPL's customers well for so long with impressive DSM achievements *and* low electric rates. As discussed in detail above under other issues, FPL's proposed goals are based on measures that pass the Participant test and RIM test, satisfying the

criteria found in Sections 366.82(3)(a), (b), F.S. FPL's proposed goals also reflect measures that pass a two-year payback screening criterion, reasonably accounting for free riders as required by Rule 25-17.002 1(3), F.A.C. Finally, FPL's proposed goals reflect FPL's most recent planning process, also as required by Rule 25-17.0021(3), F.A.C.

Substantial testimony and other evidence presented in this proceeding supports adherence to Florida's fundamental DSM policies and approaches, and therefore Commission approval of FPL's goals. Consistent with Commission precedent, FPL also proposed to retain and expand its Low Income program.[22] Tr. 83-84 (Koch) The MW and GWh impacts for continued and increased participation in FPL's Low Income program would be in addition to FPL's proposed residential goals shown in Issue 8 above. *Id.*

It is important to recognize that approval of FPL's goals does not foreclose the opportunity to evaluate specific DSM program approaches, such as research pilots for potential next-generation DSM measures, like FPL's proposed electric vehicle ("EV") pilot, as possible replacements for the no longer viable traditional energy efficiency measures. Due to the projected 460 MW increase from electric vehicles ("EVs") to FPL's Summer peak load through 2028, FPL has proposed adding this pilot to its existing Conservation Research & Development ("CRD") program to evaluate the technical and operational feasibility of reducing the peak demand impact of residential EV chargers through direct utility control. TR. 84-85 (Koch). Such pilots do not affect FPL's proposed 2020-2029 Goals and could be considered by the Commission during next year's DSM Plan docket.

[22] *See, e.g., In re: Commission review of numeric conservation goals*, Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, p. 27 (FPSC Dec. 16, 2014) ("[w]hen the FEECA Utilities file their DSM implementation plans, each plan should address how the Utilities will assist and educate their low income customers").

(a) FPL's Achievable Potential

The AP process used in this docket is the same basic approach used by FPL and relied upon by the Commission in the 2014 DSM Goals docket. Tr. 75 (Koch). After the preliminary economic screening, FPL determined the AP for those measures that passed the RIM and TRC screening analyses. FPL used a combination of quantitative and qualitative information and FPL's market experience to develop the AP. *Id*. The achievable Summer, Winter, and Annual savings were developed in a bottom-up manner. The savings for each individual measure were developed by year, and then these individual measure results were summed to determine the total residential and commercial/industrial Summer MW, Winter MW and Annual MWh for the 2020-2029 period. *Id*. The AP represents the amount of demand and energy savings that are both preliminarily cost-effective and projected to be reasonably achievable through voluntary customer participation in the marketplace over the ten-year Goals period. Tr. 77 (Koch).

(b) FPL's Numeric Conservation Goals

FPL's proposed DSM goals are "based upon [FPL's] most recent planning process." Rule 25-17.0021(3), F.A.C. The development of multi-year resource plans is necessary if one is to capture and accurately compare all of the impacts that competing resource options with different capacity amounts, terms-of-service, heat rates, types of fuel, MW and GWh reduction impacts, and costs will have on FPL's system. Tr. 170 (Whitley). FPL's goals reflect its planning process in two important ways: first, by relying on current demand, resource, and cost forecasts that feed into the preliminary economic screening tests, Tr. 146-47, 154-59 (Whitley); and second, by reflecting a subsequent detailed, complete system analysis of potential DSM additions, Tr. 170-3 (Whitley).

FPL evaluated three multi-year resource plans: a RIM-based portfolio of 352 Summer MW of DSM; a TRC-based portfolio of 417 Summer MW of DSM; and a Supply Only portfolio. Tr. 173 (Whitley); Ex. 13 (FPL Ex. AWW-8). As explained by Mr. Whitley, a number of economic analyses are conducted, and the results of these analyses are brought together to determine the economic impact of these various resource plans:

- First, the UPLAN production costing model is used to develop projected annual fuel costs for the FPL system for each resource plan. Annual variable costs for the new generation additions and system emission levels are also developed using this model. Using the projected annual emissions, annual environmental compliance costs for the system are then developed.

- Second, fixed costs (capital, fixed O&M, capital replacement, etc.) for the new generation additions in each resource plan are determined.

- Third, annual DSM administrative costs and incentive payments for the incremental DSM included in each resource plan are quantified.

- Fourth, a projection of "other" FPL system costs not affected by the resource plans was determined. (Examples of these "other" system costs include costs for existing generating units, existing transmission and distribution facilities, existing buildings, staff, etc.)

- Fifth, a projection of "other DSM costs" for the "Supply Only" and "With DSM" resource plans was developed. These "other DSM costs" include costs not tied to DSM measures included as in the 2020-2029 Goals, but which will be incurred as part of a DSM portfolio. Examples of such costs include energy surveys and on-going bill credits to existing load management participants.

- Finally, the annual reductions to the GWh over which FPL recovers its costs were determined.

Tr. 174-75 (Whitley).

This information was then used to calculate a levelized system average electric rate for each resource plan. The results of the economic analyses of the resource plans clearly pointed to the RIM-based Plan being the best option for FPL's customers. It provides the lowest levelized system average electric rate and ensures that no cross-subsidization between customer groups will occur. Tr. 175-76 (Whitley); Ex. 15 (FPL Ex. AWW-10). Although the difference in the

levelized system average electric rates for the RIM Plan and TRC Plan appear to be modest, this difference equates to a very large one-time cost of approximately $200 million in 2029. Tr. 177 (Whitley); Ex. 16 (FPL Ex. AWW-11).

The resource plans also were evaluated from a non-economic perspective to examine system emissions and fossil fuel use. FPL witness Whitley testified that there were relatively small differences among the three resource plans in terms of system emissions and system fuel use. Tr. 180 (Whitley); Exs. 18 and 19 (FPL Exs. AWW-13 and AWW-14). However, FPL's generating system is projected to steadily lower system air emissions over the 2020-2029 time-frame despite continued customer growth. Additionally, projections of system oil and natural gas usage levels are decreasing despite customer growth. Exs. 18 and 19 (FPL Exs. AWW-13 and AWW-14). Therefore, FPL's customers will benefit from projected decreases in system emissions and fuel usage regardless of which resource plan is implemented.

During the hearing, SACE repeatedly pointed out in cross-examination that FPL's proposed DSM goals are lower than goals approved in previous years. *See, e.g.*, Tr. 115-18 (Koch). Not only does FPL not dispute the fact that its goals are lower in comparison to prior years, this was the outcome that should have been expected by all parties as explained in detail in FPL's direct testimony. *See, e.g.*, Tr. 243 (Sim). As summarized previously, lower goals are the logical result of long-standing trends of increasing federal and state Codes and Standards and decreasing FPL system costs that are good for customers but negatively impact the cost-effectiveness of DSM. In fact, the primary purpose of the periodic DSM Goals proceeding is to reset Goals to reflect the new set of assumptions. As a result, DSM Goals may go up, down or remain essentially the same depending of circumstances. But, the Goals are not an end in and of

themselves and it is certainly not appropriate to have a preconceived bias that only higher is "good".

SACE also attempted to redirect the conversation away from electric rates and rate impacts and toward total costs. Specifically, SACE witness Grevatt points out that the cumulative present value of revenue requirements ("CPVRR") for FPL's TRC Plan was $104 million lower than the CPVRR for the RIM Plan. Tr. 943 (Grevatt). However, as FPL witness Whitley explained in his direct testimony, testimony which Mr. Grevatt apparently ignored, the CPVRR alone cannot be used in economic analysis between resource plans that have different levels of DSM. Tr. 148-49 (Whitley). The rate and bill impacts must also be accounted for in order to have a complete picture of the impact of DSM. Therefore, Mr. Grevatt's statement that FPL's customers would be given $104 million dollars in "bill savings" is an incomplete and misleading view because it does not account for the rate impact on all of FPL's customers, and does not account for the individual bill impact on customers who either do not or cannot participate in DSM offerings that fail the RIM test. Tr. 1191-92 (Whitley).

(c) Intervenors' Proposed Goal(s)

SACE was the only intervenor to submit testimony in opposition to FPL's proposed DSM Goals. SACE recommended that the Commission reject FPL's proposed DSM Goals and adopt the following DSM proposals: (i) a single arbitrary GWh savings Goal of 1.5% of retail sales based on savings that SACE claimed were achieved by two non-Florida utilities for one year, Tr. 966-74 (Grevatt), and (ii) low-income-specific set of Goals for a low income program in which all FPL customers would be forced to pay the entire cost for new appliances for participating low-income customers, Tr. 1013 (Bradley-Wright). However, the record evidence demonstrates that SACE's DSM proposals are contrary to and completely ignore FEECA and the

Commission's DSM Goals Rules, and would be outrageously expensive for all FPL customers. For these reasons, as further explained below, SACE's proposals should be rejected.

(i) SACE Percentage of Savings Goal

SACE completely ignores the mandatory cost-effectiveness requirements of FEECA and the Commission's DSM Goals Rules and, instead, recommends an arbitrary GWh savings Goal of 1.5% of retail sales based on savings that SACE witness Grevatt claims were achieved by two non-Florida utilities, Duke Energy Carolinas ("DEC") or Entergy Arkansas, for the year 2018. Tr. 966-74 (Grevatt). SACE's proposed DSM Goal is flawed and should be rejected for several reasons.

First, SACE did not perform any cost-effectiveness analysis as required by FEECA, the DSM Goals Rules, and the Commission's DSM Cost-Effectiveness Manual. Tr. 1234 (Sim). Although SACE argues that DSM Goals should be based on the TRC cost-effectiveness test, SACE witness Grevatt completely abandons the TRC test in recommending a DSM Goal based on a percentage of sales. Tr. 936, 972, 980-81 (Grevatt); Tr. 1187 (Whitley). In fact, in recommending a DSM Goal based on a percentage of sales, SACE failed to conduct *any* cost-effectiveness analysis as required by FEECA and the Commission's DSM Goals Rules. The fact that the DSM Goal proposed by SACE witness Grevatt is a whopping 2,476% higher than the last DSM Goal set by the Commission, despite the undisputed trend of declining cost-effectiveness, demonstrates that Mr. Grevatt's proposed DSM Goal is completely divorced from any considerations of cost-effectiveness. Tr. 1226-27 (Sim).

Second, SACE's proposal is not based on FPL's or any other Florida utility's planning process as required by Rule 25-17.0021(3). Tr. 1188-89 (Whitley); Tr. 1230 (Sim). Rather, SACE's recommended 1.5% of sales Goal is based entirely on what SACE claims two other non-

Florida utilities were able to achieve in 2018. Tr. 966-74 (Grevatt). Perhaps this is due to SACE witnesses' complete lack of experience and knowledge about resource planning. TR. 1182-89 (Whitley); Tr. 1234-37 (Sim). Notwithstanding, one of the fundamental principles of resource planning is that every utility is different and, therefore, what may be the best decision for one utility may not be the best decision for another utility. Two electric utilities, even if they are in the same state, can differ significantly in regard to many aspects including, but not necessarily limited to: electrical load patterns, types of existing generating units, efficiencies of existing generating units, fuel mix, and fuel delivery costs. Tr. 1228-29 (Sim). Simply stated, it makes no sense to propose a DSM Goal for a utility while blindly ignoring the utility's resource plan. This is precisely why the Commission's DSM Goals Rules require the DSM Goal to be based on the utility's most recent planning process.

Third, SACE's proposed DSM Goal does not include Summer and Winter MW savings as required by Rule 25-17.0021. As explained by FPL witness Dr. Sim, by recommending only a GWh Goal, and no Summer MW or Winter MW Goals, Mr. Grevatt has gone about it completely backwards from a resource planning perspective. Tr. 1231-33 (Sim). He is recommending an energy-only Goal that does not address system reliability and which, on its own, cannot be meaningfully addressed in economic analyses. *Id*. In fact, the Commission has previously considered and rejected this type of blanket percentage of sales proposal by SACE as a basis to set DSM Goals in the 2014 and 2009 DSM Goals dockets.[23]

Fourth, as explained by FPL witness Koch, SACE's reliance on two non-Florida utilities subject to entirely different regulatory and operating environments is an inappropriate

[23] *See In re: Commission review of numeric conservation goals*, Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, p. 36 (FPSC Dec. 16, 2014) (rejecting SACE/NRDC's 1% of sales DSM proposal); *In re: Commission review of numeric conservation goals*, Docket No. 20080407-EG, Order No. PSC-2009-0855-FOF-EG, p. 7 (FPSC Dec. 30, 2009) (rejecting SACE/NRDC's reliance on savings in other states outside of Florida).

benchmark and an apples-to-oranges comparison, and appears to be nothing more than a thinly veiled attempt to mislead the Commission and the FEECA utilities. Tr. 1150-54 (Koch). SACE witness Grevatt has provided no supporting evidence that either DEC or Entergy Arkansas are in any way comparable peers to any of the FEECA Utilities – aside from also being in the electric business and "southern." Tr. 1151 (Koch). Moreover, SACE concedes that the 1.5% savings it claims these two non-Florida comparison utilities achieved is overstated by as much as 60%. Tr. 1152-54 (Koch); Ex. 94 (FPL Ex. TRK-6). Specifically, as explained by witness Koch, the "sales" denominator upon which SACE witness Grevatt's savings as a percentage of sales calculation for DEC and Entergy Arkansas are based have been significantly reduced by dropping all sales associated with their opt-out customers, thereby artificially inflating the resulting percent of sales value. *Id*. Obviously, no such sales denominator reduction has been applied in his proposal for the FEECA Utilities in this proceeding. *Id*. Notwithstanding, witness Grevatt recommends that the Commission apply this inflated percentage to the FEECA Utilities' *total* retail sales. Tr. 968 (Grevatt).

Finally, and importantly, SACE's arbitrary savings as a percent of sales proposal would significantly increase electric rates for FPL's customers. As explained by FPL witness Whitley, SACE's proposal would equate to a very large one-time cost of approximately *$28 billion* in 2029 as compared to the levelized system average electric rate of FPL's RIM-based resource plan. Tr. 1194-95 (Whitley). To put things into perspective, through 2030 SACE's plan is projected to cost a customer who continues to use 1,200 kWh per month over $1,000 more than a plan based on FPL's proposed Goals. *Id*.

For these reasons, SACE's recommended 1.5% of sales Goal should be rejected.

(ii) SACE Low-Income Proposal

SACE witness Bradley-Wright recommends "larger scale" utility investments be directed at low-income customers. As examples of "larger scale" improvements, he recommends a utility program (funded by the general body of customers) to replace heating, ventilation, and air conditioning (HVAC) equipment, water heaters, and other appliance upgrades. Tr. 1013 (Bradley-Wright). SACE's low-income DSM proposal is unsupported by meaningful data, beyond the scope of this Goals proceeding, and unnecessary.

As explained by FPL witness Koch, there are serious problems and misstatements in the data that Mr. Bradley-Wright relies upon in support of his low-income DSM proposal. Tr. 1134-38 (Koch). Even assuming, *arguendo*, that his proposal was factually supported by meaningful data, which it is not, Mr. Bradley-Wright's proposal is beyond the scope of this Goals proceeding. Indeed, there is nothing in FEECA or the Commission's DSM Goals Rules that provides for or authorizes the Commission to set separate low-income-specific Goals. Tr. 1139 (Koch). Rather, the DSM Goals to be set in this proceeding are limited to Summer MW, Winter MW, and Annual GWh Goals for only two categories of customers – residential and commercial/industrial. *See* Rule 25-17.0021(1), (3).

Further, Mr. Bradley-Wright's low-income proposal completely abandons any meaningful consideration of cost-effectiveness and fails to consider the significant cross-subsidies that would result.[24] Mr. Bradley-Wright's proposal would essentially result in free appliances for all participating low-income customers or their landlords. Tr. 1202 (Whitley); Tr. 1171 (Koch). FPL undertook a cost-effective analysis of his free appliance proposal, which

[24] It is unclear whether SACE witness Bradley-Wright's eligible appliances would exceed what is already required by Codes and Standards or whether the program is designed to simply replace older appliances with newer ones. Tr. 1079 (Deason).

analysis demonstrated that the proposal is not cost-effective under either the RIM test or TRC test. Tr. 1203-04 (Whitley). In fact, although Mr. Bradley-Wright advocates for the use of the TRC test, the costs of his low income proposal would still be roughly *twenty-five times* the benefits under the TRC test. Tr. 1204 (Whitley). FPL estimates that SACE's low-income proposal would cost approximately a staggering *$4.1 billion* over and above SACE's enormously expensive 1.5% of retail sales Goal proposal. Tr. 1132-33 (Koch). Importantly, these costs must be paid by *all* customers, *including* low-income customers, through the ECCR portion of their bills. TR. 1080 (Deason).

Finally, SACE's low-income DSM proposal is unnecessary. As explained above in Issue 4, FPL committed to retain and expand its existing Low Income program when it files its DSM implementation plan. Although this program is not cost-effective, consistent with prior Commission directives to assist low-income customers, FPL is willing to continue and expand its low-income program to provide assistance to this vulnerable group to replace eliminated energy efficiency program options that will no longer be available. Tr. 84 (Koch).

For these reasons, SACE's low-income DSM proposal must be rejected.

(d) Conclusion

It is clear that an IRP approach, such as the IRP process FPL utilizes, is by far the best approach to use when making resource decisions for a utility's customers. It requires analysis of the timing and magnitude of resource needs, plus analysis of the capacity and energy impacts that competing resource options will have on the utility system from both an economic and non-economic perspective. FPL's proposed DSM Goals are the result of careful, detailed analyses and should be approved. SACE's arbitrary, one-size-fits-all recommendations fail to comply

with Florida law, would have massive customer electric rate and bill impacts, and should be rejected.

As explained above in Issue 3, the undisputed record also shows that FPL's customers will benefit from significant increases in energy efficiency and demand reduction delivered by increasing Codes and Standards over the next ten years. It would be inaccurate and improper to view FPL's proposed goals in isolation and conclude that they represent a decreasing level of attention to DSM, without recognizing the significant level of energy efficiency that will result from more aggressive Codes and Standards during that period (as well as the increasing efficiency with which FPL generates electricity).

FPL witness Sim testified that in terms of the summer peak, the cumulative impact from Codes and Standards, based on savings beginning in 2005 and extending through 2029, is estimated at approximately 4,820 MW, which represents slightly more than 17% of the forecasted Summer peak load. Tr. 237-39 (Sim). Customers are also projected to realize approximately 12,049,520 MWh of energy efficiency savings from Codes and Standards by year 2029, which represents an increase of approximately 13% from the projection at the time DSM Goals were last set, and slightly more than 9% of the total energy FPL is projected to produce that year. Tr. 225-28 (Sim). In total, FPL's customers are projected to receive *more* total energy efficiency in the upcoming ten-year period from the combination of FPL's proposed goals and the savings from Codes and Standards than they were projected to receive in the last DSM goals proceeding.

E. Demand-Side Renewable Goals

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.?

> ***FPL Position**: Goals of zero should be established for demand-side renewable energy systems because such systems are not cost-effective for FPL's customers. They fail both the RIM and the TRC economic screening tests. A Goal level of zero would best protect the general body of customers and minimize cross-subsidies between participants and non-participants. (*Koch, Whitley*)*

The Goals for DSRE systems should be set at zero because none of the DSRE system measures proved cost-effective in either the RIM or TRC economic screening tests. Tr. 82 (Koch). Setting the DSRE systems Goals at zero when they are not cost-effective is consistent with prior Commission practice.[25] Therefore, beyond the provisions already included in Rule 25-6.065, F.A.C., which is an appropriate means to encourage DSRE development, Goals for DSRE systems should be zero. Tr. 82 (Koch). This is consistent with the Commission's decision in the 2014 DSM Goals docket:

> Each of the IOUs should continue to implement the provisions of Rule 25-6.065, F.A.C., Interconnection and Net Metering of Customer-Owned Renewable Generation. The rule is an appropriate means to encourage the development of demand-side renewable energy, as it expedites the interconnection of customer-owned renewable energy systems and benefits participating customers through net metering.

See In re: Commission review of numeric conservation goals, Docket No. 20130199-EI, Order No. PSC-2014-0696-FOF-EU, p. 48 (FPSC Dec. 16, 2014).

Issue 11: Should these dockets be closed?

[25] *See In Re: Petition for approval of numeric conservation goals by Orlando Utilities Commission*, Docket No. 20040035-EG, Order No. PSC-2004-0767-PAA-EG, p. 3 (FPSC Aug. 9, 2004) (adopting DSM Goals of zero where DSM measures were not cost-effective); I*n re: Petition for approval of numeric conservation goals by JEA*, Docket No. 20040030-EG, Order No. PSC-2004-0768-PAA-EG, p. 2 (FPSC Aug. 9, 2004) (same); *In re: Adoption of Numeric Conservation Goals and Consideration of National Energy Act Standards (Section 111) by Orlando Utilities Commission*, Docket No. 19990722, Order No. PSC-2000-0587-FOF-EG, p. 3 (FPSC Mar. 23, 2000) (same); *In Re: Adoption of Numeric Conservation Goals and Consideration of National Energy Policy Act Standards (Section 11 1) by Jacksonville Electric Authority*, Docket No. 19990720-EG, Order No. PSC-2000-0588-FOF-EG (FPSC Mar. 23, 2000) (same).

***FPL Position**: Yes. This docket should be closed upon the issuance of an appropriate order approving FPL's proposed numeric conservation Goals set forth in Ex. 5 (FPL Ex. TRK-4) for the years 2020-2029.*

III. CONCLUSION

WHEREFORE, for all the reasons stated above, based upon Florida law, the evidentiary record in this proceeding, and Commission precedent, FPL respectfully requests that the Commission enter an order that (a) finds FPL's proposed DSM Goals fully comply with the requirements of FEECA, the Commission's DSM Goals Rules, and the Commission's DSM Goals Cost Effectiveness Manual, and will result in the lowest levelized system average electric rates for the benefit of all of FPL's customers, and (b) approves and adopts FPL's proposed DSM Goals set forth in Exhibit 5 (FPL Ex. TRK-4) for the years 2020-2029.

Respectfully submitted this 20th day of September, 2019

By: *s/William P. Cox*
William P. Cox, Senior Attorney
Fla. Bar No. 0093531
William.Cox@fpl.com
Christopher T. Wright, Senior Attorney
Fla. Auth. House Counsel No. 1007055
Christopher.Wright@fpl.com
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408
Phone: (561) 304-5662
Fax: (561)-691-7135

Attorneys for Florida Power & Light Company

Charles Guyton
Gunster Law Firm
215 South Monroe Street, Suite 601
Tallahassee, Florida 32301
cguyton@gunster.com
Phone: (850) 521-1980

CERTIFICATE OF SERVICE
Docket No. 20190015-EG

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by electronic service on this 20th day of September, 2019 to the following:

Margo A. DuVal, Esq. Ashley Weisenfeld, Esq. Division of Legal Services Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, Florida 32399-0850 Mduval@psc.state.fl.us Aweisenf@psc.state.fl.us	J.R. Kelly, Esq. Patricia Christensen, Esq. Office of the Public Counsel c/o The Florida Legislature 111 W. Madison Street, Rm 812 Tallahassee FL 32399 christensen.patty@leg.state.fl.us kelly.jr@leg.state.fl.us
George Cavros, Esq. Southern Alliance for Clean Energy 120 E. Oakland Park Blvd., Suite 105 Fort Lauderdale, FL 33334 george@cavros-law.com Attorney for SACE	Bradley Marshall, Esq. Bonnie Malloy, Esq. Earthjustice 111 S. Martin Luther King Jr. Blvd. Tallahassee, FL 32301 bmarshall@earthjustice.org bmalloy@earthjustice.org Attorneys for SACE
Joan T. Matthews, Esq. / Allan J. Charles, Esq. Florida Department of Agriculture & Consumer Services Office of General Counsel The Mayo Building 407 S. Calhoun Street, Suite 520 Tallahassee, FL 32399-0800 joan.matthews@freshfromflorida.com allan.charles@freshfromflorida.com	Jon C. Moyle, Jr./Karen A. Putnal/Ian E. Waldick c/o Moyle Law Firm, PA 118 North Gadsden Street Tallahassee FL 32301 iwaldick@moylelaw.com jmoyle@moylelaw.com kputnal@moylelaw.com mqualls@moylelaw.com Attorneys for FIPUG
Stephanie U. Eaton 110 Oakwood Drive, Suite 500 Winston-Salem NC 27103 seaton@spilmanlaw.com Attorneys for Walmart Inc.	Derrick Price Williamson/Barry A. Naum 1100 Bent Creek Boulevard, Suite 101 Mechanicsburg PA 17050 dwilliamson@spilmanlaw.com bnaum@spilmanlaw.com Attorneys for Walmart Inc.

By: *s/William P. Cox*
William P. Cox, Senior Attorney
Fla. Bar No. 0093531