BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Fuel and purchase power cost recovery clause with generating performance incentive factor	Docket No: 20170001-EI Date: November 13, 2017

FLORIDA POWER & LIGHT COMPANY'S POST HEARING BRIEF AND STATEMENT OF ISSUES AND POSITIONS REGARDING ISSUES 2J-2P

Pursuant to Order No. PSC-2017-0399-PHO-EI, Florida Power & Light Company ("FPL" or the "Company"), hereby files with the Florida Public Service Commission ("Commission") its post-hearing brief and statement of issues and positions on Issues 2J through 2P, which are associated with its Petition for Approval of Solar Base Rate Adjustments ("SoBRA Petition"). As described in more detail below, FPL proposes to construct 596 MW[1] of solar generation that meets all the requirements for SoBRA recovery set forth in the Stipulation and Settlement for FPL's 2016 rate case that was approved by Order No. PSC-16-0560-AS-EI, dated December 15, 2016 (the "Rate Settlement Agreement" or "RSA").

FPL's SoBRA Petition seeks approval to recover the revenue requirements associated with its four 2017 and four 2018 solar energy centers, as authorized by the Rate Settlement Agreement. Each of the eight solar energy centers that FPL is building in 2017 and 2018 has an output of 74.5 MW. Together, these eight new solar energy centers will provide 596 MW of clean, cost-effective solar power to serve our customers and provide substantial cost savings over the long term and can power the equivalent of approximately 120,000 homes. In addition, construction of the proposed solar generation creates new jobs and additional tax revenues that will benefit local Florida communities. Under the Rate Settlement Agreement, the Commission

[1] All references to "MW" or "kW" refer to alternating current.

authorized FPL to construct up to 300 MW of new solar generation for each of the four years, 2017 through 2020, of the Rate Settlement period, if FPL satisfies the following requirements:

1. The total costs of the solar projects do not exceed $1,750/kW;
2. The construction, engineering, and component costs are reasonable; and
3. The solar projects are cost-effective additions to FPL's system.

The testimonies of FPL witnesses William Brannen and Juan Enjamio demonstrated that FPL satisfies each requirement. The capital costs for the 596 MW of solar generation are significantly below the $1,750 per kW cost threshold, and FPL ensured that these costs are reasonable by employing a thorough competitive bidding processes to procure equipment and construction service. Moreover, economic analyses established that, on a cumulative present value revenue requirements ("CPVRR") basis, an FPL generation resource plan with proposed solar generation is cost-effective, saving customers $106 million compared to not adding the projects.

Accordingly, FPL requests approval of its Petition and the specified base rate adjustment to recover revenue requirements for the proposed solar generation, which were calculated in the manner prescribed by the Rate Settlement Agreement. FPL also requests authority to implement the base rate adjustments when each project enters commercial operation.

Procedural Posture

At the hearing held in this Docket on October 25, 2017, the Commission approved stipulations for FPL on all Fuel Clause and all Capacity Clause cost recovery issues. Only Issues 2J through 2P, which address FPL's SoBRA Petition, remain in dispute. Tr. 390-91. All of FPL's prefiled testimony and exhibits were entered into the record without objection at the hearing. *Id*. FPL's Fuel Clause, Capacity Clause and Generation Performance Incentive Factor witnesses – Renae B. Deaton, Michael Kiley, Charles Rote and Gerard Yupp – were excused

without cross-examination or questioning by the Commissioners. Tr. 9-10. With regard to FPL's SoBRA Petition, FPL witnesses Liz Fuentes and Tiffany Cohen, who address the SoBRA revenue requirements and the calculation of the SoBRA factor, respectively, also were excused. *Id*.

FPL presented SoBRA Petition witnesses Juan Enjamio and William F. Brannen at the hearing to address the factual issues associated with Issues 2J and 2M, concerning the cost effectiveness of the proposed solar generation projects. Only counsel for the Florida Industrial Power Users Group ("FIPUG") cross-examined these witnesses; FIPUG presented no witness of its own. Following the presentation of the evidence, FIPUG requested the opportunity to brief Issues 2J through 2P. Each issue is addressed below.

FPL's Solar Base Rate Adjustment Mechanism

By Order No. PSC-16-0560-AS-EI, dated December 15, 2016 and pursuant to its authority under the provisions of Chapter 366, Florida Statutes, the Commission approved the Rate Settlement Agreement. Paragraph 10 of the RSA authorizes FPL to recover the costs for constructing up to 300 megawatts ("MW") of solar photovoltaic ("PV") generation annually from January 1, 2017 through December 31, 2020 (1,200 MW total), with an additional year ending December 31, 2021 to complete these solar generation projects. To the extent that FPL receives cost-recovery approval for less than 300 MW in a year, the surplus capacity can be carried over to the succeeding years. RSA ¶ 10(d). FPL is authorized to recover the costs of the solar generation through a solar base rate adjustment ("SoBRA") upon each unit's commercial operation date if it is determined to be cost-effective, and the costs are reasonable and do not exceed $1,750 per kilowatt ("kW"). RSA ¶¶ 10(a), (c). Pursuant to the Rate Settlement Agreement, the issues for determination are limited to (i) the cost effectiveness of the solar generation, (ii) the amount of revenue requirements, and (iii) the appropriate percentage increase

in base rates needed to collect the estimated revenue requirements. RSA ¶¶ 10(a), 10(c). FIPUG neither opposed nor appealed the Commission's approval of FPL's Rate Settlement Agreement.

As required by the Rate Settlement Agreement, FPL filed its SoBRA Petition on March 1, 2017, at the time of its final true-up filing in the Fuel Docket, seeking approval to implement SoBRAs for 298 MW of solar generation expected to enter service by December 31, 2017 and another 298 MW of solar generation expected to enter service by March 1, 2018. At that time, FPL also filed the testimony of Juan Enjamio and William Brannen, who address the reasonableness of the capital costs and cost-effectiveness of the solar generation. Mr. Enjamio and Mr. Brannen supplemented their testimonies on August 2, 2017. On August 24, 2017, FPL filed the testimony of Liz Fuentes and Tiffany Cohen, who address the calculation of the associated revenue requirements and the SoBRA billing factors needed to collect the revenue requirements for FPL's proposed 2017 and 2018 projects. On October 25, 2017, the Commission held a duly noticed hearing to address the SoBRA-related issues.

ISSUE 2J: Are the 2017 SoBRA projects proposed by FPL (Horizon, Wildflower, Indian River, and Coral Farms) cost effective?

FPL: **Yes. The 2017 and 2018 SoBRA projects are cost effective and are projected to result in $106 million (CPVRR) of customer savings.**

ISSUE 2M: Are the 2018 SoBRA projects proposed by FPL (Hammock, Barefoot Bay, Blue Cypress and Loggerhead) cost effective?

FPL: **Yes. The 2017 and 2018 SoBRA projects are cost-effective and are projected to result in $106 million (CPVRR) of customer savings.**

FPL's 2017 and 2018 Solar Generation Projects

Pursuant to the Rate Settlement Agreement, FPL proposes to construct and operate 596 MW of solar PV generation by 2018. Tr. 425 (Enjamio); 476 (Brannen). Four solar energy centers with a total nameplate capacity of 298 MW will be constructed and placed in service by December 31, 2017 ("the 2017 Project"). Tr. 426 (Enjamio). The centers that comprise the 2017

Project are (i) Coral Farms located in Putnam County, (ii) Horizon located in Putnam and Alachua Counties, (iii) Wildflower located in DeSoto County, and (iv) Indian River located in Indian River County. Another four centers, also with a total nameplate capacity of 298 MW, will be placed in-service by March 1, 2018 ("the 2018 Project"). Tr. 426 (Enjamio). The centers that comprise the 2018 Project are (i) Loggerhead located in St. Lucie County, (ii) Barefoot Bay located in Brevard County, (iii) Hammock located in Hendry County, and (iv) Blue Cypress located in Indian River County. Each of the eight centers will have a nameplate capacity of 74.5 MW and will be able to generate about 176,000 MWh in a year. Tr. 426 (Enjamio); 527 (Brannen).

To ensure that the 2017 and 2018 Projects meet or exceed performance and reliability requirements while maintaining reasonable costs, the technology selection, engineering, and execution strategies were managed by FPL witness Brannen, whose experience developing solar generation projects spans ten years, more than ten states (including Florida) and two countries. Tr. 541-42 (Brannen). Prior to his work on the 2017 and 2018 Projects, Mr. Brannen had been associated with the more than 350 MW of solar projects developed by FPL as well as more than 1,900 MW of solar projects developed by NextEra Energy Resources, LLC ("NEER"), FPL's affiliate and the largest owner of solar projects in North America. Tr. 521, 568 (Brannen).

The 2017 and 2018 Projects will require the installation of more than 2.6 million PV panels. Tr. 527. FPL performed an economic analysis to compare the costs of the different types of solar module technologies to determine what would be most economic. Tr. 545 (Brannen). Based on this evaluation, FPL determined that photovoltaic solar panels supported by a fixed-tilt structural system yield the greatest value for customers. Tr. 545 (Brannen). The panels use a semiconductor material to convert sunlight to direct current ("DC") electricity. Tr. 523

(Brannen). The panels will be tied together electrically in groups and connected to an electronic device called a power conversion unit ("PCU"), which includes inverters that transform the DC electricity produced by the PV panels into alternating current ("AC") electricity. Tr. 523-24 (Brannen).

The panels and inverters selected by FPL for the Projects are highly efficient and reliable, and are expected to outperform equipment used in solar generation sites constructed just one year earlier. Tr. 522, 552 (Brannen). The panels turn sunlight to DC electricity at a conversion efficiency rate of 17.3%. Tr. 523 (Brannen). This is superior to the 16% rate more commonly used in the United States and is substantially more efficient than panels from a few years ago that boasted a conversion efficiency rate of 14%. Tr. 523, 553 (Brannen). The inverters selected by FPL also are highly efficient. They are expected to convert the electricity from DC and AC at an efficiency rating greater than 98.4%, and their long term availability will be 99.5%. Tr. 524 (Brannen). The use of higher quality, higher efficiency equipment with high levels of expected availability minimize land disturbances, thus reducing the size of each center's footprint and lowering construction cost. *Id*.

Each center will have a separate point of interconnection. Tr. 527 (Brannen). FPL selected the most cost-effective transmission interconnection designs available for each center. FPL will expand existing or construct new transmission substations for each center, and new collection substations with power step-up transformers will be constructed for each of the centers. The power step-up transformers increase the AC voltage from 34.5 kV to the voltages at the transmission point of interconnect. Each of the new collection substations will be connected to the bulk transmission system at the corresponding point of interconnection by generation tie lines, most spanning less than three quarters of a mile. No upgrades to the existing FPL

transmission system are required to accommodate the proposed solar generation. Tr. 527-28 (Brannen).

Over a period of approximately fourteen months that began October 2016, FPL will complete engineering permitting, equipment procurement, construction and commissioning. Tr. 528 (Brannen); Ex. 42. The construction schedule includes time necessary to prepare the sites, construct roads and drainage systems, install solar generating equipment, and build the interconnection facilities. Tr. 528 (Brannen).

The Capital Costs Associated with the 2017 and 2018 Projects Satisfy the Cost Cap and are Reasonable

The cost for the 2017 and 2018 Projects, as well as the cost for each solar energy center, is reasonable and falls substantially below the $1,750 per kW cap. As of March 1, 2017, FPL had estimated that the cost of the centers scheduled to enter service in 2017 would be $435 million, and the cost of those scheduled to enter service in 2018 would be $457 million. The costs for which FPL seeks recovery consist of all costs associated with the Projects: equipment, solar panels, land (that was not already included in rate base), and interconnections. Tr. 501 (Enjamio).

To ensure the reasonableness of its capital costs, FPL undertook a competitive bidding process for the equipment to be installed and work to be performed at the solar energy centers:

- PV panels. FPL solicited proposals from eight large, industry leading suppliers and secured all panels from the lowest cost bidder, which also demonstrated high product quality and strong financial security. Tr. 530-31 (Brannen).
- PCUs. FPL solicited proposals from nine suppliers and was able to secure all required PCUs from the lowest cost bidder. Tr. 531 (Brannen).

- Step-up transformers. FPL solicited proposals from ten industry-leading manufacturers and was able secure the supply of all the required transformers with the lowest cost bidder. Tr. 531 (Brannen).
- Engineering, procurement, and construction. FPL also solicited proposals for engineering, procurement, and construction ("EPC") services, which also includes the supply of the balance of equipment and materials. Thirteen industry-recognized contractors submitted bids. Tr. 531 (Brannen). One EPC contractor was selected for the 2017 Project, and a second EPC contractor was selected for the 2018 Project, each having been determined to be the lowest-cost, qualified bidder. Tr. 530-32 (Brannen).

The bids received from the PV panel, PCU and transformer suppliers, as well as the bids from the EPC contractors were extremely competitive and of high quality. This competitive bidding process brought market forces to bear and provides assurance that the equipment and EPC costs for the 2017 and 2018 Projects are reasonable.

FPL witness Brannen explained that, during the period between March and August 2017, the competitive solicitations for the construction of the interconnection facilities and the detailed design for the 2017 and 2018 Projects were completed, and FPL was able to secure lower than anticipated pricing for that work. *Id.* Additionally, FPL adopted cost-effective designs for the solar energy centers that would eliminate certain construction risks, which further reduced the projected construction costs. *Id.* In total, the efficient designs and reduced costs associated with the interconnection facilities lowered the projected construction costs by $16 million for the 2017 Project and $14 million for the 2018 Project. Tr. 538 (Brannen). These steps demonstrate further the reasonableness of FPL's capital costs for the projects.

The updated capital costs are estimated to be $419 million or $1,405/kW for the 2017 Project and $443 million, or $1,485/kW for the 2018 Project. The same type of solar project would have cost 4.5 times more ten years ago, and about a third more as recently as last year. Tr. 560-70 (Brannen) (referring to FPL's 2016 solar generation projects).

The 2017 and 2018 Projects are Cost-Effective

The Rate Settlement Agreement provides that the SoBRA-eligible projects are cost-effective if they lower the system CPVRR for FPL's electric system as compared to the system CPVRR without them. RSA ¶ 10(c). The analyses performed by FPL witness Enjamio demonstrate that adding the proposed 596 MW of solar PV generation to FPL's fleet lowers the CPVRR by more than $100 million and is therefore cost-effective.

To evaluate cost-effectiveness, FPL compared resource plans that exclude and include the proposed solar generation: the "No Solar Plan" and the "2017-2018 Solar Plan," respectively. Both plans use the same major system assumptions, including the FPL's official long-term fuel forecast developed using the Company's standard forecasting methodology and FPL's official load forecast, including system peaks and net energy for load, both of which were used in its 2017 Ten year Site Plan. Tr. 427 (Enjamio). FPL also utilized a carbon dioxide ("CO_2") price projection forecast provided by ICF, recognized as an industry leader in the field of CO_2 price forecasting. Tr. 427 (Enjamio).

The No Solar Plan does not include any solar generation beyond that already in service as of the end of 2016. It assumes that future resource needs are met by combined cycle units, short-term power purchase agreements, and FPL's proposed new nuclear units. Tr. 427 (Enjamio). The 2017-2018 Solar Plan adds the eight solar energy centers. Each center has an average summer firm capacity value – the expected output of the facility during the peak load hour in the

summer[2] – of 54% of their nameplate rating. Therefore, FPL assumes that at the time of summer peak each of the eight 74.5 MW solar energy centers has a firm capacity value of 40.2 MW, or that the Projects have a total firm capacity of 322 MW. As a result of adding this firm capacity, the Projects defer the timing and reduce the size of future combined cycle additions.

Based on the assumptions for each Plan, FPL determined the variable system costs, consisting primarily of fuel, variable operations & maintenance ("O&M"), and emissions, using an hourly production cost model. The output of each production cost modeling run is imported into FPL's Fixed Cost Spreadsheet ("FCSS") Model, which adds fixed costs such as capital, capital replacements, and fixed O&M. The FCSS model is used to calculate the CPVRR for each resource plan. Tr. 428-29 (Enjamio). Next, to determine the cost impact of the proposed solar generation, FPL subtracted the CPVRR of the 2017-2018 Solar Plan from the CPVRR of the No Solar Plan. Tr. 429 (Enjamio). Based on the economic analysis performed in March, the Projects produced an estimated $39 million (CPVRR) in customer savings. Tr. 434 (Enjamio).

In August 2017, due primarily to an intervening change in Florida law, FPL updated its economic analysis, revealing even greater savings for customers. Tr. 434 (Enjamio). During the 2017 legislative session, the Florida Legislature enacted Senate Bill 90, which provides an 80% property tax exemption for qualifying solar installations for a 20-year period. *Id*. Three of the four 2018 sites qualify for the exemption: Blue Cypress, Barefoot Bay, and Loggerhead. *Id*. The property tax reduction for the three qualifying sites total $34 million (CPVRR), a substantial change in the cost assumptions underlying FPL's economic evaluation. *Id*.

[2] FPL's summer peak typically occurs in August from 4 p.m. to 5 p.m. Solar installations have little, if any, firm capacity value at the time of winter peak because FPL's winter peak typically occurs from 7 a.m. to 8 a.m. when the sun generally is not shining. Tr. 428, 508-09 (Enjamio).

FPL therefore updated its economic analysis to reflect the reduced property taxes as well as the reduced capital costs resulting from efficient designs and reduced interconnection costs described above. Tr. 434 (Enjamio). All other system assumptions remained the same; FPL used the same resource plans that formed the basis for the March cost-effectiveness analysis, and again employed the hourly production costing model and the FCSS Model to determine the CPVRR for the No Solar Plan and the 2018-2018 Solar Plan. Tr. 435 (Enjamio). FPL subtracted the CPVRR of the 2017-2018 Solar Plan from the No Solar Plan. Based on the updated cost information, the 2017-2018 Solar Plan is projected to save FPL customers approximately $106 million (CPVRR). Tr. 435.

Additional Benefits of the 2017 and 2018 Projects

The 2017 and 2018 Projects also provide non-economic advantages in the form of system, environmental, and community benefits. The solar energy from the Projects improves FPL's fuel diversity by displacing fossil fuel generation at a level that is equivalent to removing approximately 102,000 cars from the road annually. Tr. 430, 510 (Enjamio). More specifically, on an average annual basis, the Projects are projected to reduce the use of natural gas by 8,400 million cubic feet, the use of oil by 15,300 barrels, and the use of coal by 9,500 tons. Tr. 429, 505-06 (Enjamio). The reduced use of fossil fuel will reduce CO_2 emissions by an average of 526,000 tons annually. Sulfur dioxide and nitrogen oxide emissions also are projected to decline by an annual average of 46 tons and 64 tons, respectively. Tr. 430 (Enjamio).

In addition, construction of the solar energy centers will create about 1,600 jobs in total, which, in turn, will provide an economic boost to local businesses. Tr. 532 (Brannen). This construction in Florida will increase annual tax revenue for the counties where the sites are located, thus contributing to the funding of public services that benefit the entire affected communities.

FIPUG's Challenges Have No Basis in Law or Facts

FIPUG challenges the 2017 and 2018 Projects on three grounds. As discussed below, each is categorically meritless.

1. ***No showing of resource need is required*.**

FIPUG unabashedly asks the Commission to ignore the terms of the approved Rate Settlement Agreement by requiring FPL to demonstrate a resource need for SoBRA-eligible generation projects. The RSA expressly prescribes the issues relevant to the Commission's decision on FPL's SoBRA Petition:

> FPL will file a request for approval of the solar generation project at the time of its final true-up filing in the [Fuel Docket] . . . . the issues for determination ***are limited to*** the cost effectiveness of each such project (*i.e.*, will the project lower the projected system [CPVRR] as compared to such CPVRR without the solar project) and the amount of revenue requirements and appropriate percentage increase in base rates needed to collect the estimated revenue requirements.

Rate Settlement Agreement, ¶ 10(c) (emphasis added). Thus, unless a project falls within the scope of the Florida Power Plant Siting Act (*i.e.*, 75 MW or greater), there is no requirement to determine a resource need. In approving the Rate Settlement Agreement, the Commission determined that it is in the public interest for FPL to add cost-effective solar generation to its system and that FPL should be allowed to recover its costs through the SoBRA mechanism for up to 300 MW a year, so long as that generation is not projected to increase the CPVRR borne by customers. FIPUG's need-based challenge to FPL's SoBRA Petition is nothing less than a patent and improper collateral attack on the Commission's approval of the Rate Settlement Agreement, a decision which FIPUG neither opposed nor appealed. *See* Order No. PSC-16-0560-AS-EI at p. 2.

FIPUG's argument also disregards the Commission's history of encouraging and approving investments that generate savings to customers, even in the absence of a resource

need. *See, e.g.*, Order Nos. PSC-15-0401-AS-EI issued September 23, 2015 in Docket No. 150075-EI (Cedar Bay transaction); PSC-16-0506-FOF-EI issued November 2, 2016 in Docket No. 160154-EI (Indiantown Cogeneration transaction); PSC-2017-0415-AS-EI issued October 24, 2017 in Docket No. 20170123-EI (St. Johns River Power Park transaction). Requiring the showing of a resource need would stifle FPL's continuous efforts to find money saving opportunities for customers. *See also* Tr. 460-61(Enjamio) ("It is a false premise to say that FPL makes investments only if there is a reliability need. FPL also invests in projects that provide savings to customers.").

And, while the primary purpose of the Projects is to provide savings to FPL customers, they also meet a reliability need in this instance. Tr. 458, 460 (Enjamio). FPL witness Enjamio explained that, in response to Staff discovery, FPL performed an analysis that updated the "No Solar Plan" and "2017-2018 Solar Plan" to include (i) FPL's termination of its joint ownership in and power purchase agreement with St. Johns River Power Park and (ii) FPL's Dania Beach Energy Center. Tr. 455 (Enjamio). Based on that analysis, FPL has a capacity need in 2018 that is partially met by the 2017 and 2018 Projects. *Id*. In later years, the Projects also meet capacity needs on FPL's system and provide FPL the ability to make decisions to retire or upgrade other units if doing so will result in customer savings. Tr. 456-57 (Enjamio).

FIPUG's observation that FPL's reserve margin is projected to exceed 20% in future years is a red herring. The reserve margin criterion is a *minimum*, which exists to ensure that utilities have generation sufficient to provide adequate and reliable service to customers and does not limit otherwise cost-effective projects. As demonstrated in this case, the addition of the 2017 and 2018 Projects result in *lower* costs to customers. Tr. 463-64 (Enjamio). Having excess reserves in certain years is a function of the "lumpy" manner in which generation is added to

FPL's system; FPL adds units with capacity greater than what is needed in the year in which they enter service because doing so is economic for customers. Tr. 480 (Enjamio). Moreover, even in years where the reserve margin exceeds 20%, the Projects provide capacity value on FPL's system by deferring additional capacity needs. Tr. 512-13 (Enjamio).

2. *Solicitation of third party proposals to build the Projects was not required and would not have benefitted customers*.

FIPUG next challenged FPL's decision to build projects that do not fall within the reach of the Florida Power Plant Siting Act (i.e, 75 MW or larger) and the Commission's associated "Bid Rule" (Rule 25-17.0082, F.A.C.), arguing that FPL should have solicited third party proposals for the construction of the Projects. But doing so would have added at least $20 million of capital costs to each Project. Tr. 574 (Brannen). As described above, FPL solicited bids for all of the major equipment and for EPC services associated with each of the Projects. *See also* Tr. 499 (Enjamio) (testifying that about 90 percent of the costs were bid). This thorough process yielded highly competitive bids that resulted in low construction costs.

Mr. Brannen concluded that, in his expert opinion – informed by years in the industry overseeing the development of more than 2,200 MW of solar generation, working for the largest owner of solar facilities in North America and the largest renewable energy owner that had been privy to pricing information of other utilities – FPL would not have obtained lower costs by seeking competitive bids for the development of the 2017 and 2018 Projects. Tr. 568-69. Third party developers would have solicited bids from the same kind of suppliers. Not many developers, if any, have the negotiating leverage that FPL has as a consequence of its high volume needs. Moreover, third parties still must recover their profit, which adds to the overall cost to customers. Tr. 567 (Brannen).

Additionally, witnesses Enjamio and Brannen explained that developing larger sites subject to the Florida Power Plant Siting Act and the Bid Rule would have added six to nine months[3] to the approval and construction time line for the centers, which would have been detrimental to customers for several reasons:

- FPL sought to take immediate advantage of dramatically low solar panel prices that were available at the time. Tr. 497 (Enjamio).
- FPL was making its decisions regarding the construction of the solar projects immediately following the 2016 election. Thus, it was concerned with political risk attendant to a new presidential administration. Tr. 498 (Enjamio). For example, solar panels potentially will be subject to an import tariff in the near future. The 2017 and 2018 Projects will not be impacted, however, because the panels for those Projects already have been delivered or have cleared customs. Tr. 493 (Enjamio). Adding six to nine months to the construction schedule would have added material risk and potential increased costs for customers with the pending potential of import tariffs.
- At a 74.5 MW size, FPL maximized economies of scale. Larger projects do not reduce the unit cost ($/kW). Tr. 497 (Enjamio).
- There is a value in distributing the projects geographically. Geographic diversity reduces concerns associated with solar production at one site at any given time. Tr. 497 (Enjamio).

[3] Likewise, it is unlikely that deferring the Projects to future years would be beneficial to customers because the economic analysis indicates that their fuel savings offset the capital costs. Tr. 504 (Enjamio).

- A six to nine month delay could have meant that the Projects would not have been available in time to meet FPL's 2018 capacity need. Tr. 497 (Enjamio).

Each of these risks has an attendant cost. Had FPL chosen instead to construct larger sites requiring a longer schedule, customers would have been exposed to increased costs of at least $20 million for each Project. Tr. 574 (Brannen).

3. *FPL appropriately considered a range of scenarios in analyzing the cost-effectiveness of the 2017 and 2018 Projects.*

FIPUG argued at the hearing that the 2017 and 2018 Projects are not cost-effective if lower fuel and CO_2 price forecasts are assumed. But that would require the Commission to ignore the fact that eight of nine scenarios project significant customer savings resulting from the 2017 and 2018 Projects.

FPL analyzed the cost-effectiveness of the 2017 and 2018 Projects using assumptions of low, medium, and high fuel and CO_2 costs. Tr. 469 (Enjamio). Nine scenarios were evaluated, with eight of the nine scenarios delivering customers savings ranging from $14 million to $359 million (CPVRR). Ex. 86. It is standard practice to use the most-likely assumption as the most-likely result, which consists of the medium fuel cost and medium environmental cost scenarios. Tr. 476 (Enjamio). Under that scenario, the Projects yield savings of $106 million (CPVRR). Yet FIPUG urges the Commission to decide FPL's SoBRA Petition based solely on one scenario that focuses on both fuel and environmental costs being lower than expected.[4]

Counsel for FIPUG attempted to challenge FPL's CO_2 cost projection through cross-examination of witness Enjamio by alluding to the Trump administration's position with respect

[4] During the cross-examination of witness Enjamio, FIPUG misguidedly relied on Exhibit 100, which does not incorporate updated assumptions.

to the cost of carbon. Tr. 470 (Enjamio). Mr. Enjamio explained, however, that even FPL's mid-band carbon forecast accounts for the Trump Administration's intent to withdraw from the Paris Climate Accord and the Clean Power Plan. Tr. 470 (Enjamio). FPL's mid-band analysis reflects zero CO_2 costs through 2027, with the first implementation of CO_2 costs beginning in 2028 at a very low rate. *Id*.

REVENUE REQUIREMENTS

ISSUE 2K: What are the revenue requirements associated with the 2017 SoBRA projects?

FPL: **$60,523,000**

ISSUE 2N: What are the revenue requirements associated with the 2018 SoBRA projects?

FPL: **$59,890,000**

The annualized jurisdictional revenue requirements for the first 12 months of operations related to the 2017 Project and 2018 Project are $60.5 million and $59.9 million, respectively. Tr. 175 (Fuentes). FPL calculated the revenue requirements for the 2017 and 2018 Projects consistent with the requirements of the Rate Settlement Agreement. *See* Rate Settlement Agreement ¶ 10(a) ("For each solar project that is approved by the Commission for cost recovery pursuant to the process described in this Paragraph, FPL's base rates will be increased by the incremental annualized base revenue requirement . . . for the first 12 months of operation"). The SoBRA revenue requirement calculation methodology is similar to the methodologies approved by the Commission for several of FPL's generation base rate adjustments. *See* Order Nos. PSC-05-0902-S-EI, PSC-11-0089-S-EI, PSC-13-0023-S-EI and PSC-16-0560-AS-EI (¶ 9). Tr. 176 (Fuentes).

The revenue requirement computations for each SoBRA are based on the Company's capital expenditures estimate as of August 2017 (described, *supra*, under Issues 2J and 2M),

depreciation expense and related accumulated depreciation for solar generation and transmission plant using depreciation rates set forth in the Rate Settlement Agreement, estimated operating expenses for the first 12 months of operations, incremental cost of capital, and accumulated deferred income taxes ("ADIT"). Tr. 176-78 (Fuentes).

FPL used a 10.55% return on common equity and an incremental capital structure, adjusted to reflect the inclusion of investment tax credits ("ITC") on a normalized basis. Tr. 177 (Fuentes). FPL used the equity ratio and long-term debt rate set forth on page 8 of Exhibit 332 (prefiled Exhibit No. KO-20) from FPL's 2016 rate case filing. *Id*. With respect to the ITCs, FPL will record an ITC of approximately $104.2 million for the 2017 Project and $106.5 million for the 2018 Project, representing 30% of the qualified capital spending associated with each solar investment upon the in-service date of each site as required by the Internal Revenue Code. Tr. 178 (Fuentes). FPL will amortize the ITCs as a reduction to tax expense over the life of each unit, and the unamortized balance will be reflected as a component of capital structure and have a blended debt and equity cost rate. This method of calculating the ITC cost rate has been reviewed and approved by the Commission. Order No. PSC-10-0153-FOF-EI, Docket Nos. 080677-EI, 090130-EI. Tr. 178-79 (Fuentes).

Finally, the ADIT included as a component of rate base for the 2017 and 2018 Projects primarily reflects the timing difference between book and tax depreciation, specifically bonus tax depreciation, over the life of the assets. Tr. 178 (Fuentes). To comply with the IRC Treasury Regulation §1.167(1)-1(h)(6), FPL prorated the depreciation-related ADIT balance consistent with the FPL's most recent base rate filing.

BASE RATE ADJUSTMENTS

ISSUE 2L: What is the appropriate base rate percentage increase for the 2017 SoBRA projects to be effective when all 2017 projects are in service, currently projected to be January 1, 2018?

FPL: **0.937%**

ISSUE 2O: What is the appropriate base rate percentage increase for the 2018 SoBRA projects to be effective when all 2018 projects are in service, currently projected to be March 1, 2018?

FPL: **0.919%**

The SoBRA factor for the 2017 Project is of 0.937%, and SoBRA factor for the 2018 Project is 0.919%. FPL calculated these factors as required by the Rate Settlement Agreement. Tr. 182 (Cohen). The SoBRA factors are based on the ratio of (1) the Company's jurisdictional revenue requirements for each Project and (2) the forecasted retail base revenue from electricity sales for the first twelve months of each rate year, beginning January 1, 2018 for the 2017 Project and March 1, 2018 for the 2018 Project. *Id.*;[5] *see* Rate Settlement Agreement, ¶ 10(e). Application of the SoBRA factors to the Company's January 1, 2018 and March 1, 2018 base rates will provide the Company with sufficient revenue to recover the costs associated with the construction and operation of the 2017 and 2018 Projects. Tr. 182 (Cohen). FPL projects that the March 1, 2018 typical residential bill – inclusive of the SoBRAs for both the 2017 and 2018 Projects – will remain below the national average, below the state average, and will remain among the lowest in the state of Florida. Tr. 184 (Cohen).

In the event that construction of the 2017 or 2018 Project is completed under budget, customers will receive a one-time credit through the CCR Clause to reflect the difference

[5] The total retail base revenues from the sale of electricity for the twelve months beginning January 1, 2018 and March 1, 2018 are projected to be $6,458.109 million and $6,518.299 million respectively.

between the Project's projected and actual capital expenditures. Rate Settlement Agreement, ¶ 10(g); Tr. 184-85 (Cohen). This mechanism is identical to the one employed to true-up the capital expenditures associated with FPL's Cape Canaveral and Port Everglades Energy Centers. *Id*.

TARIFF APPROVAL

ISSUE 2P: Should the Commission approve revised tariffs for FPL reflecting the base rate percentage increases for the 2017 and 2018 SoBRA projects determined to be appropriate in this proceeding?

FPL: **Yes**

Revised tariffs reflecting the base rate percentage increases for the 2017 and 2018 Projects should be approved. As discussed above, FPL satisfied the requirements for SoBRA cost recovery enumerated in the Rate Settlement Agreement. FPL's capital costs for the Projects are $1,405/kW and $1,485/kW for the 2017 and 2018 Projects, respectively, substantially below the $1,750/kW cap set forth in in the Rate Settlement Agreement. FPL undertook a thorough bidding process for the equipment as well as the EPC services, ensuring that the costs are reasonable. The economic analyses performed demonstrate that the 2017 and 2018 Projects generate $106 million in customer savings (CPVRR) and are thus cost-effective. Finally, the revenue requirements and SoBRA factors for each Project were calculated as prescribed in the Rate Settlement Agreement. Accordingly, FPL should be authorized to implement revised tariffs reflecting the SoBRA factors when the 2017 and 2018 Projects enter commercial operation.

WHEREFORE, Florida Power & Light Company requests that the Commission approve its SoBRA Petition and authorize FPL to implement the solar base rate adjustments when the 2017 and 2018 Projects enter commercial operation.

Respectfully submitted,

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CERTIFICATE OF SERVICE
Docket No. 20170001-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by electronic service on this 13th day of November 2017 to the following:

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