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June 17, 2014

Ms. Carlotta S. Stauffer
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

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Re: Docket No. 140070-EI / Staff's Second Data Request

Dear Ms. Stauffer:

Enclosed for filing on behalf of Florida Power & Light Company ("FPL") are the original and five (5) copies of FPL's responses to Staff's Second Data Request dated June 3, 2014, relating to FPL's Petition for Approval of a Voluntary Solar Partnership Pilot Program and Tariff.

If you should have any questions, please do not hesitate to contact me at (561) 304-5795 or maria.moncada@fpl.com.

Sincerely,

Maria Jose Moncada
for Maria Jose Moncada

- COM _____
- AFD _____
- APA _____
- ECO 3
- ENG _____
- GCL 1
- IDM 1
- TEL _____
- CLK _____

Q.

If revenues exceed costs for the program, how does FPL intend to treat this overage?

A.

FPL's VSP Program is designed to manage over multiple years the voluntary contributions of customers against the costs of deploying a solar program, which vary year-by-year. During some years, the revenues are expected to exceed the annual revenue requirement, and in other years fall short. When revenues are projected to exceed the annual revenue requirement for a sustained period, FPL will begin work to invest in new solar projects with the goal of generally matching customer support with solar deployment.

Q.

If costs exceed revenues for the program, who will be assuming risk for that amount?

A.

FPL's VSP Program is designed to manage over multiple years the voluntary contributions of customers against the costs of deploying a solar program, which vary year-by-year. During some years, the revenues are expected to exceed the annual revenue requirement, and in other years fall short. As stated in FPL's response to Staff's First Data Request No. 5, if the VSP Program were terminated and participant contributions and avoided-cost fuel/emission benefits do not cover the remaining revenue requirements, FPL would absorb the difference below the line.

Q.

Regarding the 20 percent maximum marketing and administrative expenses:

- a. Is the expense of the website mentioned in the petition part of the 20 percent maximum?
- b. If not, how will these costs be recovered?
- c. What components will be included under marketing and administrative expenses?

A.

In general, FPL will engage in marketing and administration activities consistent with launching a new consumer program to build awareness and encourage participation. This broad category of costs will include many things, including the marketing costs (internal labor that is not already being recovered in base rates, email, newsletters that accompany the bill, and other cost-effective digital channels like the web and social media), program administration costs (project manager), financial reporting, and customer service as appropriate. As much as FPL elects to spend, no more than 20% of customer contributions will be used to pay for those costs. All costs that exceed the 20% cap will be borne below the line to launch this program only during the pilot period.

- a) Marketing/Customer website expenses are included and subject to the 20% cap
- b) n/a
- c) See statement above

Q.

Is operations and maintenance (O & M) included in the 20 percent of marketing and administrative expenses maximum?

- a. If so, how much of this amount is anticipated to be assigned to cover operations and maintenance expenses?
- b. If not, who will be responsible for these O & M expenses, both during the pilot program and after?

A.

FPL interprets this request to refer to the costs of operating and maintaining the PV systems that are installed under the pilot program.

No, O&M expenses are excluded from the 20% cap because operational project costs are not considered marketing, communication, or program administration costs (i.e., M&C and G&A). FPL includes O&M expenses in the program revenue requirements as operational costs. Examples of the O&M expenses are the site monitoring and repairs, vegetation management, and routine scheduled maintenance.

a) n/a

b) O&M expenses are part of the revenue requirements for the projects installed under the VSP Program. The participants are responsible for the portion of the revenue requirements that exceed the avoided cost for the projects. As stated in FPL's response to Staff's First Data Request No. 5, if the program were terminated and the participant contributions and avoided-cost fuel/emission benefits did not cover the remaining revenue requirements, FPL would absorb the difference below the line.

Q.

Please provide the range of costs that FPL estimates for the entire project, both on a per kilowatt and a per kilowatt-hour basis.

- a. How many kW and kWh will the customers' \$9 support?
- b. How are these costs expected to compare to the per kW and per kWh costs for the pilot residential and commercial solar programs approved as part of FEECA?

A.

Specific projects have not been fully developed at this time, but projected installed capital costs for this program are expected to decline during the VSP Program from \$2,800/kW_{DC} in 2015 to \$2,300/kW_{DC} by 2017. The resulting \$/kWh pricing determined by dividing total projected annual net revenue requirements by total projected solar production over the 30 operational years results in a range of \$0.16-\$0.51/kWh depending on participation. The kWh pricing will decline over time as new projects are added to the program.

a) The program is dynamic and therefore individual participants' \$9/month contributions cannot be linked directly to a specific PV facility. Rather, the cumulative revenues from all active participants will be used to support the revenue requirements (capital spend, O&M expenses, etc.) of all PV facilities. As participants remain enrolled longer, their contributions will support increasing levels of kW and kWh as more efficient technology is realized and capital costs decline for solar projects overall.

b) FPL does not believe that it is possible to provide an "apples to apples" comparison of the cost per kW or kWh to customers under the VSP Program and the current residential and commercial PV Pilot rebate programs (the "PV Pilots"), because the programs are structured so differently. The PV Pilots are designed around subsidies from the general body of customers to the participants, in the form of rebates that are recovered through the ECCR clause. In contrast, the VSP Program is designed to avoid cross-subsidies by the general body of customers, relying instead on participant contributions to defray the portion of the revenue requirements for the PV systems installed under the program that exceeds the avoided-cost fuel/emissions benefits. Because of these structural differences, FPL believes that the most appropriate comparison would be of the installed cost per kW for the PV systems under the two types of programs. FPL expects that the installed cost per kW for the initial systems that are to be installed in late 2014-early 2015 under the VSP Program will be approximately \$2,800/kW_{DC}. This compares

favorably with the reported cost of approximately \$3,800/kW_{DC} and \$3,500/kW_{DC} for residential and business customers, respectively, for 2014 installations under the PV Pilots.

Q.

What will the installed costs be for the initial 300 kW installation?

- a. What specific technology (for example, tracking vs. non-tracking) will be used for this installation?
- b. Please provide any cost estimates or site plans produced to date for this project.

A.

Specific projects have not been fully developed at this time, but based on the forecast market data used in FPL's response to Staff's Second Data Request No. 5, costs are expected to be approximately \$2,800/kW_{DC}.

a) Fixed-tilt systems are expected to be the lowest cost installation option and are the basis for the filed program analysis. FPL will consider tracking systems if costs can be at or below fixed system costs in the design/bidding process over the long-term life of the project on a CPVRR basis.

b) Costs are only projected at this point as FPL continues to work towards identification of the first 300 kW project locations. Upon final site selection, a thorough analysis will occur and FPL will use a RFP to determine the most cost-effective installation for each site (technology, installer, equipment vendor, etc.). Cost projections are set forth in FPL's responses to Staff's Second Data Request Nos. 5 and 6.

Q.

Has FPL compared costs for tracking vs. non-tracking solar photovoltaic costs?

a. How do these compare to the costs for FPL's DeSoto and Space Coast solar photovoltaic project costs?

A.

FPL has not yet compared the costs of tracking vs. fixed PV for these installations. That analysis will be performed as part of detailed engineering.

a) Large-scale PV installation costs have decreased so dramatically since the DeSoto and Space Coast projects were built that direct cost comparisons with the proposed VSP installations are not instructive. The costs for the voluntary solar projects are expected to be significantly less than the first-of-their-kind DeSoto and Space Coast solar projects. When built five years ago, DeSoto was \$5,507/kW_{DC} and Space Coast was approximately \$6,184/kW_{DC}. The costs for central-station solar facilities have also been dramatically declining, however. Today, such installations are estimated to be approximately one-third of the original installation costs and would be less expensive than both current rooftop pricing and the voluntary solar program pricing.

Q.

Page 4, paragraph 11 states that, "participant contributions will cover FPL's net revenue for the facilities." Will participants in the program be paying for the entire costs of the program, or just the costs above avoided costs?

A.

VSP Participants will pay only that portion of program revenue requirements that exceeds avoided costs.

Q.

Given that FPL anticipates rising investment in solar panels over the course of the three years of the program, why does Line F of Page 2 of Exhibit B have property taxes and remain almost flat for the low participation case?

A.

Please refer to FPL's response to Staff's First Data Request No. 8, specifically the break out of how the "Other" line item (Line F of Exhibit B) is calculated. In addition to property tax and insurance, the "Other" line item also includes the normalization of ITC. Property tax increases as NBV increases, and insurance costs increase as cumulative MW increases. These incremental increases are offset by the ITC normalization. Therefore, when netted against each other, the cumulative effect is a relatively flat "Other" line item.

Please see Attachment No. 1.

| Other (property taxes, insurance, investment tax credit (ITC)) | | 2015 | 2016 | 2017 |
|--|-------------------------------------|----------|----------|----------|
| | | 1 | 2 | 3 |
| | Property tax | | | |
| A | Prior Year NBV | \$850 | \$1,026 | \$1,181 |
| B | Property Tax Rate Assumption | 2.00% | 2.00% | 2.00% |
| C | Total Property Taxes | \$17 | \$21 | \$24 |
| | Formula | A*B | A*B | A*B |
| | Insurance | | | |
| D | Annual kW Installed | 100 | 100 | 150 |
| E | First Year Premium (\$000/MW) | \$6 | \$6 | \$6 |
| F | Total First Year Premium | \$1 | \$1 | \$1 |
| | Formula | D*E/1000 | D*E/1000 | D*E/1000 |
| G | Legacy Installed MW | 0 | 100 | 200 |
| H | Subsequent Years Premium (\$000/MW) | \$2 | \$2 | \$2 |
| I | Total Subsequent Years Premium | \$0 | \$0 | \$0 |
| | Formula | G*H/1000 | G*H/1000 | G*H/1000 |
| J | Total Insurance | \$1 | \$1 | \$1 |
| | Formula | F+I | F+I | F+I |
| | ITC Normalization | | | |
| K | ITC (Pre-tax to Customer) | \$123 | \$119 | \$56 |
| L | Normalization Rate | 3.30% | 3.30% | 3.30% |
| M | Normalization | \$4 | \$4 | \$2 |
| | Formula | K*L | K*L | K*L |
| N | Mid-Year Adjustment | 50.00% | 50.00% | 50.00% |
| O | First Year Normalization | \$2 | \$2 | \$1 |
| | Formula | M*N | M*N | M*N |
| P | Annual Normalization | \$2 | \$6 | \$9 |
| | Formula | O1 | M1+O2 | M1+M2+O3 |
| Q | Total Other | \$16 | \$15 | \$16 |
| | Formula | C+J-P | C+J-P | C+J-P |

Q.

How will any financial obligations for these installations, including O & M, be addressed after the end of the 3-year pilot?

A.

As stated in FPL's response to Staff's First Data Request No. 5, FPL is optimistic that the program will be successful and sustainable, such that it will be continued after the pilot period. If terminated at the end of the pilot period, FPL would cease active enrollment of customers, and would not invest in new VSP projects after termination, but would leave the tariff open for existing participants to remain in the program. The incremental revenue requirement of the constructed projects will decline over time, so the continuing participant contributions will likely cover the declining revenue requirements even with a modest attrition rate. Eventually, the avoided-cost fuel/emission benefits of the solar energy production will be greater than the revenue requirements of the project, and so there would be no additional net costs thereafter. In the unlikely event that the continuing participant contributions and avoided-cost fuel/emission benefits did not cover the remaining revenue requirements, FPL would absorb the difference below the line.

Q.

How will costs for the 300 kW installation to be built prior to the opening of subscriptions be recovered if there is insufficient participation to cover its costs?

A.

FPL will under-collect the revenue requirement until sufficient participation is achieved to fully pay for the first 300 kW_{DC} of constructed solar projects. New projects will be constructed beyond the initial 300 kW_{DC} build only to the extent that there is sufficient customer participation. As stated in FPL's response to Staff's First Data Request No. 5, in the event that there is not sufficient participation to cover the cost of the initial 300 kW installation by the end of the three-year pilot period and assuming the VSP Program were terminated, FPL would absorb below the line the portion of revenue requirements above the avoided costs not covered by the customer contributions.

Q.

How will FPL treat any income from the sale of RECs associated with this program? Where will these sales be recorded?

A.

Because there is no active market for REC sales in Florida, FPL does not currently include REC value in the VSP Program economics. In the event FPL is able to monetize the RECs produced by the VSP Program, the revenue generated from REC sales will benefit the program participants by reducing the net revenue requirements that are to be covered by participant contributions.

Q.

Will the solar projects built as part of this program be eligible for the federal solar investment or production tax credits? If so, where will this credit be recorded?

A.

Yes, the solar projects built under this program will be eligible for investment tax credits. The amount of investment tax credit generated will be recorded in Account 255, Accumulated deferred investment tax credits.

Q.

Does FPL intend to alter the program if subscriptions exceed 13,500 or fail to reach 7,800? If so, how will FPL alter the program?

A.

The program is designed to be flexible and grow as more people enroll. If more participants enroll, FPL will build more to satisfy that demand. If fewer enroll, FPL would not build more during the pilot period than already installed. At the end of the pilot period, FPL will evaluate enrollment and overall results. Based on that data, FPL will propose whether to continue with the program and if so, what modifications are necessary.

Q.

How were the numbers for high and low participation arrived at?

A.

These numbers represent estimated participation using a range of cost-effective marketing channel mix and spend assumptions, and a range of high and low customer response rates based on performance of offers to promote participation in existing FPL DSM and billing programs.

Q.

Please explain how the 2008 peak participation of nearly 39,000 in FPL's terminated Sunshine Energy Program could be instructive in estimating participation in the proposed solar partnership pilot program.

A.

FPL is conservatively assuming lower levels of participation during the pilot period. In the event the current program sees participation similar to the referenced Sunshine Energy Program, FPL will continue to build more solar projects and grow the VSP Program consistent with demand.

Q.

Page 5, paragraph 13 of the petition notes that FPL intends to place the panels in “high visibility” locations.

- a. What is meant by “high visibility?” Please provide any examples.
- b. Will the panels be located on FPL buildings?
- c. Paragraph 13 of the petition notes that it may install panels on commercial parking canopies. If these (or other) facilities on which the panels are installed are not owned by FPL, who will assume liability for these panels?
- d. Will these “high visibility” locations increase project costs?

A.

a) The term “high visibility” refers to areas where many customers will see the solar installations to enhance customer awareness of solar and demonstrate the partner community’s commitment to the environment. High visibility locations would include ground-based solar arrays or solar canopies capable of being viewed by the general public. Rooftop arrays are generally out of sight, so would not be used unless the roof is clearly visible from the ground. FPL will consider installations located at or near major intersections or highly traveled roads and buildings so that large numbers of people in the community can see the solar installations as they drive by. An example might be at a city or county park near a major road.

b) FPL-owned land and buildings will be considered if the location is highly visible in a targeted community and meets the objectives of subpart (a) above.

c) FPL intends to build, own, and operate all of the solar facilities for this program. The solar facility includes the mounting structure that secures it to the ground (including the metal structure in a typical parking canopy installation) or the building (if used in this case). The parking canopy installation (if used) would be similar to the type of installation at the FPL corporate office in Juno Beach. These systems are specifically engineered to be a part of the solar project and not solar being added on to an existing covered parking structure. However, if a suitable carport or building exists and meets the objectives outlined in subpart (a) above, the host site lease arrangement would properly allocate risks between the landlord (rooftop/carport owner) and tenant (FPL). This lease contract will cover typical rooftop lease items such as: minimum structural integrity, maintenance, insurance requirements, site/equipment access, etc.

d) FPL will balance total project costs with the visibility objective and local community requirements. High visibility locations in urban areas tend to vie for other interested parties or options and therefore could be more expensive. For instance, a rooftop could be a cheaper option, but may be relatively invisible to the public eye. The corner property of a major intersection could be more costly, but extremely visible to the public. While high visibility locations might cost more than low visibility locations, installations at those locations may be more likely to increase awareness and consequently increase enrollment. Higher enrollment levels may, in turn, increase revenues collected to cover the project costs. FPL is cognizant of project costs and will work to balance the project costs with the visibility of the selected sites.

Q.

Will FPL own the solar panels used in the program? If not, who does FPL anticipate owning them?

A.

FPL plans to own and operate all the equipment used in the VSP Program.

Q.

Will all panels be grid-tied, supply side systems, or does FPL anticipate wiring some of the systems to supply power to the buildings or structures they are mounted on?

A.

FPL anticipates all VSP projects to be grid tied (supply-side) assets.

Q.

The petition cites Section 366.075, Florida Statutes, as the basis for the Commission's authority to approve this program. Section 366.075 addresses conservation and energy efficiency, but not renewable energy. Because this program appears to be a supply-side measure, what authority does the FPSC have to approve rates on an experimental basis for supply-side measures?

A.

FPL does not interpret Section 366.075, Florida Statutes as applicable to non-renewable energy only or demand-side measures only. Section 366.075 authorizes the Commission to approve experimental rates "for any public utility to encourage energy conservation *or to encourage efficiency.*" (Emphases added). Here, the renewable energy generated from the solar facilities built under the VSP Program will displace energy that would otherwise be produced from non-renewable fossil fuels. Thus, FPL's overall generation system will become more efficient from a fuel consumption perspective.

The Commission has previously cited Section 366.075 as a basis for its authority to approve similar experimental renewable energy tariffs, *see* Order No. PSC-03-1442-TRF-EI at page 3, dated December 22, 2003 (Order approving FPL's Green Power Pricing Research Project), and as a basis for its authority to approve other experimental non supply-side programs. *See* Order No. PSC-07-0427-TRF-GU at page 2, issued on May 15, 2007, in Docket No. 060675-GU, *In re: Petition for authority to implement phase two of experimental transitional transportation service pilot program and for approval of new tariff to reflect transportation service environment, by Florida Division of Chesapeake Utilities Corporation*; Order No. PSC-07-0536-TRF-EI at page 1, issued on June 27, 2007, in Docket No. 070291-EI, *In re: Petition for Permanent Approval of a Performance Guaranty Agreement, Including Approval of First Revised Tariff Sheet No. 9.946 by Florida Power & Light Company.*

Please note that the Petition seeks approval also under Section 366.06, which is an independent basis for the Commission's broad authority to approve pilot or experimental rates. *See, e.g.*, Order No. PSC-96-1219-FOF-EI, issued September 24, 1996, in Docket No. 960789-EI, *In re: Petition for authority to implement proposed commercial/industrial service rider on pilot/experimental basis by Gulf Power Company.*

Q.

Has FPL considered including any net metering benefits for participants in the program? If so, why were these benefits not included in the program?

A.

The VSP Program is designed around utility-owned, supply-side assets for which net metering would not be applicable or appropriate. Contributions from participating customers cover the cost of the installation and expansion of the new solar facilities minus the avoided cost savings so that non-participant customers will not subsidize this program as they do with net metering. All FPL customers share in the fuel and emissions cost-saving benefits, which result from the operation of the PV facilities.

Q.

What regulatory treatment does FPL intend for the solar installations constructed by this program following the conclusion of the program?

A.

FPL interprets this request to be asking about regulatory treatment at the end of the three-year pilot period.

FPL will record the investment and cost associated with the program in the appropriate accounts during the pilot period, and the accounts would continue to be used at the conclusion of the pilot period. As stated in FPL's response to Staff's First Data Request No. 5, FPL would take the necessary steps to ensure that, if there were a shortfall between program costs and participant contributions over the term of the pilot, the difference would be recorded below the line.

Q.

How will FPL determine how much solar it will build?

- a. What benchmarks must subscriptions reach before it exceeds the initial 300 kW installation?
- b. Installations per dollar taken in by the program varies widely between the high and low scenarios. Does FPL anticipate as wide a variation in installation between the two scenarios?
- c. Has FPL determined benchmarks for participation that will trigger additional installations?
- d. What are these benchmarks?

A.

a) FPL believes a specific subscription-based approach to adding capacity is infeasible for two reasons:

1) Unknown Future Costs. Solar project costs are declining, and FPL wants to be able to continue to capture that declining cost for our customers. Locking in a rate of new builds without knowing actual costs may under-build capacity for our customers. Additionally, we have not yet designed any site and as a result do not exactly know the total costs for each of the first or subsequent installations. As such, it would be inappropriate to define specific criteria at which point FPL would build additional capacity; and

2) Declining Revenue Requirements. Since the revenue requirements decline as the facilities are depreciated over time, it is likely that we will be able to continue to build new solar projects even with stable subscription levels.

Instead, FPL intends to monitor the existing solar costs and customer participation rates (additions/drops) to ensure what has been built is being covered and as subscription rates suggest enough participation to build the next project (i.e., over the next 6-12 months), FPL will proceed with development activity.

b) FPL believes scale matters in deploying cost-effective solar. The wide variation is explained by two factors: (i) lower efficiency of smaller installations and (ii) those smaller installations still having to cover the "soft costs" to deploy the assets. Permitting costs are forecast to be the same

for each project and that cost is amortized over smaller systems.

c) See FPL's response to subpart (a) to this question.

d) N/A

Q.

How does FPL intend to promote the program? What kinds of marketing are expected to encourage participation in the program?

A.

FPL anticipates using cost-effective methods to promote the program. Some methods include newsletters that accompany the bill, email, and other digital channels like the Web and social media. An initial detailed marketing plan will be developed upon approval of the program.