BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

DOCKET NO. 20190061-EI

In re: Petition for approval of FPL SolarTogether program and tariff, by Florida Power & Light Company.

_____/

VOLUME 1
PAGES 1 through 261

PROCEEDINGS: HEARING

COMMISSIONERS PARTICIPATING: CHAIRMAN GARY F. CLARK
COMMISSIONER ART GRAHAM
COMMISSIONER JULIE I. BROWN
COMMISSIONER DONALD J. POLMANN
COMMISSIONER ANDREW GILES FAY

DATE: Tuesday, January 14, 2020

TIME: Commenced: 2:25 P.M.
Concluded: 6:15 P.M.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: DEBRA R. KRICK
Court Reporter

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J. R. KELLY, Public Counsel, CHARLES J. REHWINKEL, Deputy Public Counsel and STEPHANIE MORSE, Associate Public Counsel, ESQUIRES, 111 West Madison Street, Room 812, Tallahassee, Florida 32399, on behalf of the Citizens of the State of Florida (OPC).

JOHN C. MOYLE JR. and KAREN A. PUTNAL, ESQUIRES, 118 North Gadsden Street, Tallahassee, Florida 32301, on behalf of Florida Industrial Power Group Users (FIPUG).

GEORGE CAVROS, ESQUIRE, 120 E. Oakland Park Boulevard, Suite 105, Fort Lauderdale, Florida 33334 On behalf of Southern Alliance for Clean Energy (SACE).

MARSHA E. RULE, ESQUIRE, 119 South Monroe Street, Suite 202, Tallahassee, Florida 32301; RICHARD A. ZAMBO, ESQUIRE, 2336 South East, Ocean Boulevard, #309, Stuart, Florida 34966; and KATIE CHILES OTTENWELLER, QUALIFIED REPRESENTATIVE, 151 Estoria Street SE, Atlanta, GA 30316, on behalf of Vote Solar (Vote Solar).

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WALT L. TRIERWEILER and KRISTEN B. SIMMONS, ESQUIRES, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, on behalf of the Florida Public Service Commission (Staff).

MARY ANNE HELTON, ESQUIRE, Deputy General Counsel; KEITH C. HETRICK, ESQUIRE, General Counsel, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, Advisor to the Florida Public Service Commission.

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID	ADMITTED
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P R O C E E D I N G S

CHAIRMAN CLARK: All right. If everyone will take their seats, we will go ahead and get started.

Go ahead and call this meeting to order, and I will ask staff to read the notice, please.

MR. TRIERWEILER: By notice, this time and place was set for a hearing in Docket No. 20190061-EI. The purpose of this hearing is more fully set out in the notice.

CHAIRMAN CLARK: All right. Let's begin with appearances, starting with FPL.

MS. MONCADA: Good afternoon, Mr. Chairman. Maria Moncada from Florida Power & Light Company. Happy New Year to everyone.

With me today is William Cox, and I would also like to enter an appearance for Wade Litchfield.

CHAIRMAN CLARK: Thank you.

MR. CAVROS: Good afternoon, Chairman, Commissioners. George Cavros on behalf of Southern Alliance for Clean Energy.

MS. OTTENWELLER: Good afternoon, Mr. Chairman and Commissioners. I would like to enter an appearance for myself, Katie Chiles Ottenweller with Vote Solar, and also for Marsha Rule and Rich Zambo.

Thank you.

THE WITNESS: Thank you.

MS. EATON: Good afternoon, Chairman and Commissioners. I am Stephanie Eaton. I am here been on behalf of Wal-Mart, Inc.

MR. MOYLE: Good afternoon. Jon Moyle with the Moyle Law Firm on behalf of FIPUG, the Florida Industrial Power Users Group. And with me is Karen Putnal is our firm who will be participating in the hearing as well.

Thank you.

CHAIRMAN CLARK: Thank you.

MR. REHWINKEL: Good afternoon, Mr. Chairman and Commissioners. Charles Rehwinkel and Stephanie Morse with the Office of Public Counsel on behalf of FPL's customers. And I would also like to enter an appearance for J.R. Kelly, the Public Counsel.

CHAIRMAN CLARK: Thank you.

MR. TRIERWEILER: Good afternoon, Commissioners, Walt Trierweiler and Kristen Simmons for Commission staff.

MS. HELTON: And finally, Mary Anne Helton here as your advisor, along with your General Counsel, Keith Hetrick.

CHAIRMAN CLARK: All right. Thank you very

much.

Did we get everybody?

All right. Let's move on to preliminary matters.

MR. TRIERWEILER: Staff notes that the following witnesses have been stipulated and excused from the hearing. Vote Solar Witness Cox, Wal-Mart Witness Chriss, SACE Witness Jacob, staff Witness Hinton and FPL Witnesses Shannon, Deason and Brannen, with the understanding that the deposition transcripts for Witness Deason and Brannen are stipulated into the records.

Staff recommends that the testimonies and exhibits for these witnesses be entered into the record in the order of witness presentation reflected in the prehearing order.

CHAIRMAN CLARK: All right. Let's move to exhibits, marking the exhibits.

MR. TRIERWEILER: Staff has prepared a comprehensive exhibit list which includes the prefiled exhibits attached to each witnesses' prefiled testimony, as well as exhibits identified by staff. The list has been identified to the parties, Commissioners and the court reporter.

Staff requests that this list itself be marked

as Exhibit 1 to the CEL at this time, with all subsequent exhibits marked as indicated on the list.

CHAIRMAN CLARK: All right. We will mark the exhibit as Exhibit 1.

(Whereupon, Exhibit No. 1 as marked for identification.)

CHAIRMAN CLARK: All other exhibits are going to be numbered 2 through 62.

(Whereupon, Exhibit Nos. 2-62 were marked for identification.)

CHAIRMAN CLARK: And look at moving the exhibits.

MR. TRIERWEILER: Staff requests that Exhibit No. 1 be entered into the record at this time.

CHAIRMAN CLARK: Exhibit 1 is entered into the record.

(Whereupon, Exhibit No. 1 was received into evidence.)

MR. TRIERWEILER: It is staff's understanding at the prehearing conference that the parties do not object to the stipulation of staff Exhibits 38 through 62. Staff requests that these exhibits be entered into the record at this time.

CHAIRMAN CLARK: That was the agreement, no

objections.

All right, 38 through 62 on the comprehensive exhibit list are hereby moved into the record.

(Whereupon, Exhibit Nos. 38-62 were received into evidence.)

CHAIRMAN CLARK: All right. We are going to move on to opening statements.

All parties are going to have seven minutes for opening statements. Time is not going to be shared amongst the parties. We are going to go in the following order: FPL, OPC, FIPUG, SACE, Vote Solar and then Wal-Mart. We are all in agreement.

MS. MONCADA: Mr. Chairman.

CHAIRMAN CLARK: Ms. Moncada.

MS. MONCADA: Yeah, Mr. Chairman. Just quickly right before we start opening statements, a very fast housekeeping matter.

As I was preparing for hearing, it came to my attention that FIPUG had signed an NDA but had not requested a copy of the confidential list of customers who have pre-registered for SolarTogether. This afternoon, I did provide that list to Mr. Moyle, who understands the confidential nature of the document.

CHAIRMAN CLARK: Okay. Great. All in

agreement?

Mr. Moyle.

MR. MOYLE: Yeah, I appreciate that, and it's confirmed.

CHAIRMAN CLARK: Okay. Thank you.

All right. Ms. Moncada, you may begin.

MS. MONCADA: Thank you, Chairman Clark and Commissioners. Thank you for the opportunity to address you this afternoon.

On behalf of our customers, and with great enthusiasm, FPL presents to you its community solar program known as FPL SolarTogether, and we ask you to approve the pending settlement proposed jointly by FPL, the Southern Alliance for Clean Energy, Wal-Mart and Vote Solar.

For more than a decade now Florida has been committed to promoting the development of renewable energy as a means to reduce the State's dependence on fossil fuels. Over that time period, the cost of solar powdered energy has dropped dramatically while Floridians' interest in obtaining their power from solar has substantially increased, and that interest continues to grow.

Florida utilities have seized upon improved economics to advance solar cost effectively.

Customers, too, have added more and more private solar to the grid, and over the years, this commission's constructive policies have likewise recognized the importance of promoting solar energy in this, our sunshine state. Your approval of our SoBRA mechanism, for example, is enabling FPL to add 16 new solar energy centers, which have been projected to save customers millions of dollars.

Commissioners, we have received widespread support from our customers for these projects, as well as for our voluntary program known as SolarNow, but our customers have told us that they want even more. They want more opportunities to make a difference by going solar. They want to be involved more directly. They want to realize both financial and environmental benefits associated with solar energy, and this interest is coming from customers of all stripes.

We've heard from individual homeowners, municipal governments, small businesses, major corporations and even the U.S. military. In fact, some organizations have established a goal to become 100 percent renewable because their constituents are demanding it. And this customer quest for more options is not going away.

On the heels of this decade of progress, FPL is now positioned to respond to these customer needs and take yet another important step forward in the advancement of cost-effective solar energy in Florida. To this end, we propose for your consideration FPL's SolarTogether.

Through this program, participants can voluntarily subscribe to a share of capacity from 20 new solar energy centers. In all respects, the program is designed in response to our customers' needs.

First, participants can achieve their goal to go solar by subscribing to the amount of capacity of their choosing up to 100 percent of their usage. They will pay a monthly charge designed to cover slightly more than the program's net revenue requirements, and in return, they will receive benefits in the form of bill credits.

Over time, both participants and the general body of FPL customers are projected to achieve savings because the sites are cost-effective. 45 percent of those benefits will be allocated to the general body of customers.

Second, the size of the program, 1,490 megawatts, is based on customers' affirmative

interest.

In the fall of 2018, large commercial, industrial and governmental customers committed to more than 1,100 megawatts of capacity. FPL has therefore, allocated 75 percent of the program capacity to these customer classes, and the remaining capacity, 372.5 megawatts, goes to residential and small business customers.

Third, solar will be accessible to customers for whom it is not available today because SolarTogether removes barriers associated with private solar. No high upfront costs. No long-term commitments, and no need for suitable roof space.

Fourth, through the settlement, the program creates the opportunity for thousands of low income households to participate directly in solar. This is more than any other program in the country.

OPC has recently expressed that approval of this program would represent a policy shift. To the contrary, Commissioners, SolarTogether fits been Florida's statutory renewable energy policy. However, even if one were to view this as policy shift, it's important to highlight one thing with which you all are very familiar, regulation should

not stand still.

The evidence will demonstrate that approval of this program is an appropriate regulatory response to the needs of customers, especially in view of technology advancements and favorable economics. And it's also consistent with the Commission's track record of supporting new initiatives that promote environmental goals and improved fuel diversity.

Also, OPC's assertion that SolarTogether is unduly discriminatory and would somehow be a subsidy ignores the fact that the program's participants volunteer to pay more than 100 percent of the construction costs while sharing nearly half of the benefits with the general body of customers.

As FPL Witness Terry Deason testified, participants here are not cost causers. They are benefit facilitators. And sharing the benefits actually provides the general body of customers even greater protection if we compare to isolating all the costs and all the benefits to just -- to just the participants.

You might also hear challenges from intervenors regarding whether this program is needed. As you know, these facilities are not

subject to the Power Plant Siting Act, but they do meet several of the same objectives. They meet a projected resource need between now and 2022. They provide fuel diversity, encourage renewables and are projected to generate savings for customers.

We have been surprised and disappointed by the opposition from OPC and FIPUG, but we are proud to stand here today with our fellow signatories and the numerous customers and various stakeholders who have voiced their support. Approval of this program will establish Florida as the premier state for community solar.

The testimony you will hear from FPL witnesses, along with the evidence already stipulated into the record, will demonstrate that SolarTogether and the settlement tariff are in the public interest and should be approved.

Thank you.

CHAIRMAN CLARK: Thank you, Ms. Moncada.

OPC.

MR. REHWINKEL: Thank you.

This case is about the fundamental rules of how a regulated monopoly adds rate base and adds responsibility for paying for that rate base. It is not an argument about the benefits of solar,

because we agree with FPL on that.

The Office of Public Counsel is reluctantly involved in this case. We are not in this case to oppose solar energy. We are here because the Public Counsel has determined that the public interest requires that all five million customers of FPL deserve a voice in how their future is shaped, not only in what they pay today, but in the coming decades and whether all five million should pay to subsidize a special program only a few other customers can take advantage of.

The Public Counsel believes that the fundamental principles and terms of art in rate-making understood by the Legislature should continue to ensure that customers will pay only for costs that were added to a utility's cost structure based on sound principles of fairness and reliability needs.

The Public Counsel wants FPL's customers, and all Florida customers, to benefit from advances in solar generation. We, too, want the world to be a better place. We have met and talked to sincere people at FPL in this case who want to make solar work for the better of customers and Florida.

The Public Counsel wants to be a part of

making solar work. We have previously been a part of that in a historic way, and we will continue to be.

We also want to be a part of making Florida better for all in a way that ensure that all customers are treated fairly now, and in the event of changes in the industry and regulation.

Commissioners, you are being asked to make a fundamental change in the way regulation occurs for captive customers in the context of what is described as a voluntary community solar program. That is what this case is about. Unfortunately, there are unanswered questions about the proposal that must be resolved in a fair and equitable way. We believe this forum, a tariff on a voluntary program, is not the right forum for one -- for that fundamental policy decision.

One significant problem is that what -- is that what FPL is proposing is not needed, or that to the extent some need can be shown, this proposed generation is not currently the least cost option to meet FPL's customers' reliability needs. It has not been demonstrated to be the most cost-effective generation resource available to meet the identified reliability needs of the company.

Another major problem is that the inherent and explicit subsidization mechanism that is asymmetrical and ultimately will not be fair to all of FPL's customers, possibly not even to the ones who are early direct beneficiaries of the first phase of the program.

A further problem is that FPL is also proposing to use an accounting practice that artificially inflates rate base. If this previously undisclosed practice is allowed to stand in this case, it will be a bad precedent for coming solar projects and other efforts to enhance reliability of the Florida electrical system.

Again, the Public Counsel supports solar generation in Florida. We know it is increasingly important. We have entered into three ground-breaking settlements with FPL, Tampa Electric and Duke that have directly resulted in close to 3,000 megawatts of utility scale solar generation.

These agreements were part of give and take in a larger rate case context. The basic standard of simple cost-effectiveness cannot be mined as a precedent in fashioning a standard for determining need outside of a rate case settlement context.

With respect to the fairness issue, our expert Jim Dauphinais will testify that the proposal before you is unfair because it imposes all of the risk of achieving cost-effectiveness, not on FPL or its shareholders, not on the relatively small number of beneficiaries of the program, but on the 98 plus percent of FPL customers who cannot participate in the program. They fund $133 million of the subsidy that makes the program quickly pay off for participants, and they also bear the risk that cost-effectiveness does not materialize. These customers are worse off under the proposal before you than they would be without it.

This direct subsidization mechanism is something that the Commission has never expressly authorized in the past, and it wreaks of unfairness. It should not be allowed. On this basis alone, the program should not be authorized, Mr. Dauphinais gives you have the principles that you can apply to make this type of program fair. FPL's proposal does not meet those principles.

On the issue of need, we ask you to take note that FPL, on one hand, asks you to selectively adopt certain principles of the Power Plant Siting Act and ignore others while artificially carving up

its program into 20 individual slices in order to avoid the very requirements of the statute it seeks to rely on.

Then trying to have it both ways, FPL asks the Commission to, nevertheless, evaluate need by considering the entire 1,490 megawatts of their program as if an unbreakable monolithic hole despite its previous attempt to present the program as 20 different power plants.

A similar principle is in play when it comes to the artificial creation of depreciable rate base. FPL admits that the 75 megawatt slices that were used to he evade the PPSA would not be individually be eligible for accrual of AFUDC. The carrying costs of these small projects would be absorbed in earnings during construction and not added to the depreciable basis added to plant at the start of service. Yet FPL has devised an internal procedure to magically stitch six far flung and discrete solar farms together to just barely get over the threshold to apply AFUDC.

Again, this is improper, disingenuous and inflates rate base. It's simply contrary to establish principles of what a project is for determining depreciable plant.

Commissioners, we are here for the long-term. We are not here asking you to make a short-term decision. We are here as a voice for all customers for decades.

I just need to end this by adding that we had raised an issue about affiliate transactions at the prehearing conference. We dropped that issue, and we dropped it because Witness Brannen has addressed our concerns, for now. And the resolution of those concerns and the basis for it is contained in the deposition that will be included in the record.

Thank you, Commissioners.

CHAIRMAN CLARK: Thank you, Mr. Rehwinkel.

All right. FIPUG. Mr. Moyle.

MR. MOYLE: Thank you, Mr. Chairman.

I want to start by echoing the position of FIPUG with respect to renewable energy that I have put forward before you all a number of times in the SoBRA context. Today is -- is different because we are not here on a SoBRA. We are here on a separate -- separate petition.

But FIPUG supports renewable energy provided the renewable energy is cost-effective and it's needed. And we think those two caveats are very important, and we think this case before you

presents fairly questions about -- about cost-effectiveness and -- and need.

You will recall in the TECO last SoBRA presentation that, you know, you all have some constraints placed on you by the SoBRAs in a Florida Supreme Court ruling about -- about what you can consider, and the agreement had certain provisions about cost-effectiveness and you are, I believe, not able to wholly and fully exercise your prudence responsibilities in that context, the SoBRA context.

You are not in the SoBRA context now. This is one where you are able to review and look at and wrestle with policy issues that -- that, you know, that are before you, including -- including the issue of need, and including the issue of cost-effectiveness.

Mr. Rehwinkel just said OPC is going to tee up those issues and talk with you about them. A couple of points that -- that FIPUG over the years has -- has believed made sound policy for its membership is related to subsidization.

And the Gulf Power Company came in a number of years ago with a community solar project, it may have involved some of the military, but the

essential deal was those who wanted to sign up for the solar could raise their hand and do it, and those who did not want to sign up for the solar didn't have to raise their hand and they didn't have to do it, but there wasn't cross-subsidization. If things didn't work out, then that was on the people who raised their hands. And if things did work out, the people who raised their hands were getting the benefit, but the general body of ratepayers was not -- was not at risk.

An issue before you today is is the general body of ratepayers at risk, and to what degree? You know, you will hear about -- about benefits flowing. And everybody hopes this works out and that benefits are realized and flow to the people who raised their hand and said, sign me up for this, I want to do this, and to the general body of ratepayers, but sometimes things go south. And when things go south, I think you will hear that -- that there is some exposure for, not only the people who raised their hand, but for the general body of ratepayers.

So that's a policy issue that you all have to -- have to wrestle with. You know, our

preference is, as we told Gulf Power when they came forward, that, you know, there is some choice in the monopoly context. But when things are chosen for folks, that -- that can be a little bit interesting. And so to all of a sudden have people picking things and putting risk on you, you know, a lot of the FIPUG members are like, you know, we would rather -- we would rather take our own risk and not have people taking risk for us, you know.

So that -- that's a point that I wanted to raise with you that. I think is fairly presented as a -- as a policy issue.

And I think the other -- the other one that you will have to -- have to confront is how you go about making determinations related -- related to need. You know, historically, as Mr. Rehwinkel said, it's been based on reliability. You all have a rule in place about a minimum requirement of 15 percent for planning purposes. You know, you have acted in a policy manner on that.

There is a stipulation that you may hear about that the Commission approved, probably decades ago now, but it had a 20-percent reserve margin, and so that's what has been used.

There is also a statute about need

determinations when it's over 75 megawatts. These projects are all 74.5, so they fall within, even though they are aggregated to get to a 1,500 megawatt level.

But I think some of that -- the other arguments you may hear are that need is more than reliability. I think FPL, in their opening statement, they say this isn't necessarily about a reliability need. It's about a need of the wants and desires of our customers for solar.

And I think, you know, solar is popular. It's good for the environment. A lot of people want it. But the question is, is that something that then can trigger you to say, yes, go forward and -- and put this in even if the reliability numbers are not necessarily supporting it.

You know, you can project into the future. There may be other issues that come up that customers want and come and present those to you, and I think that's fair. But when you start getting that presentation before you, where you have the efforts of people to cross subsidize and put general body of ratepayers at risk, you know, that presents some issues that deserve serious consideration and thought as you consider this.

So those were the three main points that I wanted to share with you with respect to issues that -- that FIPUG has questions about as we move forward. And we look forward to spending the next day or so with you on this.

Thank you.

CHAIRMAN CLARK: Thank you, Mr. Moyle.

Mr. Cavros.

MR. CAVROS: Good afternoon, Chairman, Commissioners. George Cavros on behalf of Southern Alliance for Clean Energy.

Southern Alliance for Clean Energy is a regional nonprofit clean energy organization that works to transition the state to a lower cost, lower risk clean energy future. The SolarTogether tariff and program will move the state to a lower cost, lower risk clean energy future.

That's why I find myself uncharacteristically at this end of the table. We are throwing our full support behind the program, and ask that the Commission find the settlement agreement entered into between FP&L, SACE, Vote Solar and Wal-Mart to be in the public interest.

Does the SolarTogether tariff and program have a novel design as a community solar program? Sure,

it does. I think we can all agree on that. But that shouldn't be a roadblock in developing and designing a cost-effective way to provide more access to solar power from customers that are demanding it. And there are a number of benefits of the program and the tariff that support a public interest determination, a finding of that it is in the public interest from the Commission. I just wanted to point out a few of those to you, Commissioners.

First of all, it meets the legislative intent, Florida Statute 366.92. It definitely expands renewable energy in the state. It certainly diversifies the fuel mix of the state. It insulates customers from fuel price shocks, and it will bring significant economic development and jobs to the state through the construction of 20 solar plants.

The program is also cost-effective. The net system benefits are projected to be $249 million over the life of the project, as opposed to the business-as-usual scenario.

There is also an equitable allocation of the benefits of the program. There is going to be a 55/45 split between the participants in the program

and the general body of ratepayers. Considering that customers are -- are, you know, supporting over 100 percent of the cost of the program, that certainly seems equitable to us.

There is a very important low income provision in -- in the program. It expands participation for low income customers by allowing them to receive an economic benefit from the very first month of participation. The program also meets resource needs for FP&L in the 2020-2021 timeframe. It will defer a -- rather, eliminate the need for a combustion turbine in the near-term and it will defer the need for a natural gas combined cycle plant in the out years.

Commissioners, it also meets customer demand. There is great concern among the public regarding the climate crisis. And their concern is probably well placed. The science tells us that we need to start significantly reducing greenhouse gas emissions and be at net zero by 2050.

This -- you know, this is, I think, why you are seeing so much demand in the program from companies, large -- large retailers that want to meet sustainability goals. I think that's why you are seeing so much demand from municipalities that

are trying to reach their carbon reduction goals. And I think that's why you are going to see a lot of residential demand once that's opened up for customers that want to leave a healthier plant to planet to their kids and grandkids.

You know, so the first phase of the SolarTogether program definitely meets this demand but I think it's really just starting to scratch the surface for -- for solar power that, you know, the demand for solar power that we have here in Florida.

So, you know, the program meets legislative intent. It's cost-effective. It's, you know, a fair allocation of benefits. It expands opportunities for participation for low income customers. I think these are all points, benefits that weigh in favor of finding the settlement agreement to be in the public interest, and we respectfully request your support for the agreement.

Thank you.

CHAIRMAN CLARK: Thank you very much, Mr. Cavros.

All right. Vote Solar.

MS. OTTENWELLER: Good afternoon, Chairman

Clark and Commissioners. I am Katie Chiles Ottenweller, the Southeast Director of Vote Solar. Vote Solar is a nonprofit organization with over 30,000 members from Florida.

I want to start by expressing my thanks for the opportunity to participate in this important proceeding. Vote Solar's mission is to make solar a mainstream energy source that is accessible to all. FPL SolarTogether program brings us one step closer to that goal.

First I want to say a word about solar resources. Vote Solar's testimony describes how solar is now the cheapest generating source available to FPL. Today, solar only makes up 1.4 percent of the total electricity generated by Florida Power & Light.

It's worth emphasizing again that adding the solar resources to FPL's system is projected to save an estimated $249 million. Adding the solar capacity will lower system costs and create downward pressure on rates.

I want to speak to one very important need that Vote Solar sees solar being able to provide at this time.

This program will defer the need for future

gas-fired generation, which already represents 73 percent of FPL's system capacity. We agree with FPL's testimony that solar provides a much needed financial hedge for customers against natural gas price volatility, and we hope that the Commission will think about this as it considers the need for this capacity.

Now, I want to turn to the way FPL SolarTogether program shares those benefits with customers, which is unique.

Vote Solar works on community solar and solar subscription programs all across the country. Utilities across the country are looking for ways to meet customers' interest and need for more renewable energy options. A core principle of community solar is that it should expand access to a broader group of energy consumers. This is consistent with Florida law, which expresses a clear preference for promoting and encouraging customers' voluntary clean energy investments. FPL's program accomplishes this goal.

To date, most utility sponsored programs have allocated all of the costs and all of the benefits to participating customers. And these programs are often viewed as premium products marketed to

customers who can afford to pay more for them.

The SolarTogether program takes a novel approach, in that it allocates the cost to participating customers, but also reserves 45 percent of the total value of benefits to benefit the generate base.

We believe this approach is an improvement over the traditional community solar model serving the public interest by ensuring that benefits are not limited just to those customers who subscribe.

We also commend SolarTogether's carve-out that allows low income customers to participate. We are particularly concerned about access and affordability of clean energy options for all Floridians, especially those who spend a large portion of their income on electricity bills.

Today 1.4 million FPL customers live in energy poverty, spending more than a tenth of their income on basic energy services. Low income customers face significant barriers to accessing clean energy today.

This program, once approved, will designate 30 megawatts of solar to low income customers, making it the largest voluntary utility sponsored low income solar offering in the country.

SolarTogether is a step forward in addressing the heavy burden borne by low income customers in Florida with no additional costs for these low income participants.

Due to the size and novel design of this program, the Commission is in a position today to set a new standard for voluntary solar offerings in Florida and across the country. For all these reasons, Vote Solar asks the Commission the SolarTogether tariff as currently proposed.

As with any settlement, the proposal before you is a result of compromise, and give and take. We want to thank the settling parties for their spirit of collaboration, and look forward to engaging with all parties and this commission going forward to continue to encourage smart solar policy in the state.

Thank you.

CHAIRMAN CLARK: Thank you, Ms. Ottenweller.

Ms. Eaton.

MS. EATON: Good afternoon, Commissioners and Chairman and the staff and fellow intervenors.Wal-Mart purchases more than 650 million kilowatt hours annually from FPL pursuant to several different schedules. The cost of

electric utility service is a significant element of the cost of operation for Wal-Mart's facility. As such, Wal-Mart is a large customer of FPL with multiple counts, and its interests are unique in this docket.

In addition, Wal-Mart has established aggressive and significant renewable energy goals. In 2005, Wal-Mart set an aspirational goal to be supplied 100 percent by renewable energy.

On November 4th, 2016, Wal-Mart announced new sustainability goals for 2025 that built on its existing energy goals to include sourcing half of its global energy needs from renewable sources, and through a combination of renewable energy and energy efficiency reducing emissions in its operations by 18 percent.

The Corporate Renewable Energy Buyers' Principles established by World Resources Institute and World Wildlife Fund, and to which Wal-Mart is a signatory, provides more detail around corporate customer renewable energy needs.

In light of this commitment to renewable energy, Wal-Mart is interested in having access to a renewable energy product within FPL's service territory, and has pre-registered for the

SolarTogether program. Therefore, Wal-Mart is favorably interested in the structure and design of the proposed SolarTogether program and rate schedule STR. FPL -- FPL's filings in this case squarely address and will impact critical interest for Wal-Mart with respect to its energy consumption in Florida.

On September 3rd, 2019, Wal-Mart filed the direct testimony of Mr. Steve Chriss, Wal-Mart's Director of Energy Services, who I believe will, although he is excused, I believe will be present tomorrow.

Thereafter, FPL, SACE, Vote Solar and Wal-Mart engaged in negotiations and discussions to address the parties' respective positions regarding the SolarTogether program. These efforts have culminated in FPL, SACE, Wal-Mart and Vote Solar entering into the settlement agreement that is before this commission for approval pursuant to the joint motion of the parties on October 99th, 2019.

Wal-Mart supports the settlement agreement, settlement tariff and the SolarTogether program overall for all of the reasons that have already been addressed by our other -- the other settling parties in this docket.

Wal-Mart believes that the SolarTogether program with the settlement tariff is meeting customer needs and demands as set forth in FPL's rebuttal testimony.

Thank you.

CHAIRMAN CLARK: Thank you, Ms. Eaton.

Okay. I think that gets everybody. Before we get to the witnesses portion, let me just do a couple of housekeeping details. I should have done of this first. I guess, in my eagerness to get started with my first hearing, I forgot all of the important stuff.

We are going to probably end tonight around 6:00 p.m. We will go all the way up to 6:00. If it looks like for some reason you guys wrap this up and we could finish it within an hour, we will stay. Other than that, we are going to reconvene tomorrow morning around 9:30, as we discussed in the prehearing.

I think our anticipation is we should be through mid-afternoon tomorrow, based on our -- I think we are all kind of forecasting a little bit what's going to happen, so I want to make sure everybody is well aware of the timelines and kind of lay out the expectations.

We will most likely stop for a break at an appropriate time around 4:00, 4:15 this afternoon. We will take about a five-minute break there and let everybody get a drink of water and a restroom break. But I think that should cover most of the preliminaries.

Are there any questions?

All right. Let's get on to witnesses. Just a brief comment.

We discussed the concept of friendly cross. There will be no friendly cross of any of the witnesses. Let's keep that in mind.

If everyone who is going to be testifying today or tomorrow, if you are here, let's go ahead and get you to stand and we will go ahead and administer the oats.

If you would, raise your right hand.

(Whereupon, witnesses present were sworn.)

CHAIRMAN CLARK: Okay. Thank you.

MR. REHWINKEL: Mr. Chairman.

CHAIRMAN CLARK: Mr. Rehwinkel.

MR. REHWINKEL: I just, in -- I had a thought about your admonition about friendly cross. Is -- is that going to be guided by this fundamental principle, FIPUG and Public Counsel are aligned,

all the other parties are aligned, is that --

CHAIRMAN CLARK: Yes, that's going to be the guiding principle. Yes.

MR. REHWINKEL: Okay. Thank you.

CHAIRMAN CLARK: If you have something that is relevant that will present some sort of evidence that the Commission is interested in, then by all means, but if it looks like it's going down that road in a general nature, then no, okay.

All right. Just a reminder that all of the witnesses are going to be given five minutes to summarize their testimony. And I think we are at the beginning point.

Ms. Moncada, you may begin.

MS. MONCADA: FPL calls Matt Valle to the stand.

CHAIRMAN CLARK: Welcome, Mr. Valle.

THE WITNESS: Thank you.

Whereupon,

MATTHEW VALLE

was called as a witness, having been previously duly sworn to speak the truth, the whole truth, and nothing but the truth, was examined and testified as follows:

CHAIRMAN CLARK: Ms. Moncada.

MS. MONCADA: Thanks.

DIRECT EXAMINATION

BY MS. MONCADA:

Q Mr. Valle, you were just sworn, yes?

A Yes.

Q Could you please state your full name for the record?

A Matthew Valle.

Q Who is your current employer?

A Florida Power & Light.

Q And what is your business address?

A 700 Universe Boulevard, Juno Beach, Florida.

Q What is your current position with FPL?

A I am Vice-President of Development.

Q Thank you.

Have you caused to be filed 23 pages of direct testimony which was filed on July 29th, 2019, in this proceeding?

A Yes.

Q Did you also cause to be filed an errata sheet on January 9th, 2020?

A Yes.

Q Do you have any other changes or corrections to your testimony?

A No, I do not.

Q Thank you.

If I were to ask you the same questions today, would your answers be the same?

A Yes, they would.

MS. MONCADA: Mr. Chairman, FPL requests that Mr. Valle's prefiled direct testimony be inserted into the record as though read.

CHAIRMAN CLARK: Show it entered.

(Whereupon, prefiled direct testimony was inserted.)

ERRATA SHEET OF MATTHEW VALLE

July 29, 2019 – Direct Testimony

PAGE #	LINE #	CHANGE
Page 10	16-18	Delete "In other words, they will receive credits representative of the actual system savings generated by their Subscription Level" and insert the following in its place: "In other words, they will receive bill credits representative of the actual solar generated by their Subscription share."

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Matthew Valle. My business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light Company ("FPL" or the "Company") as the Vice President of Development at FPL.

Q. Please describe your duties and responsibilities in that position.

A. I am responsible for leading the new generation development for the company across technologies including solar, batteries and natural gas.

Q. Please describe your educational background and professional experience.

A. Prior to my current role, I was Vice President of Development at NextEra Energy Transmission, and was responsible for the competitive development of transmission across the U.S. and Canada. Prior to joining NextEra Energy, I held the position of Principal with The Boston Consulting Group in its Dallas office from 2007 to 2011. In this role, my responsibilities included running project teams for Fortune 500 clients in the energy and technology sectors. Prior to The Boston Consulting Group, I served five years as a nuclear submarine officer in the U.S. Navy. I received a Bachelor of Science with Merit from the U.S. Naval Academy in Systems Engineering, and a Master of Business Administration from Harvard Business School.

Q. Are you sponsoring any exhibits in this case?

A. Yes. I am sponsoring the following exhibit:

- MV-1 – STR - Tariff No. 8.932 in Legislative and Proposed Formats

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide an overview of the FPL SolarTogether Program (or "the Program") including a description, objective and benefits of the Program, as well as the basic principles underlying the structure of the Program.

Q. Please summarize your testimony.

A. FPL SolarTogether is a new community solar program through which participants can voluntarily subscribe to a share of the output from newly constructed solar energy centers ("Centers") and receive a bill credit for their subscription share of the power produced. FPL is proposing this innovative program to meet the substantial demand from customers who are seeking expanded access to solar energy. Under FPL SolarTogether, FPL will build, own and operate Program-designated Centers. Phase 1 will consist of 1,490 megawatts of alternating current ("MW_{AC}") to support the substantial customer demand identified during pre-registration and the anticipated residential and small business customer demand. Participants will pay approximately 96% of the Program base revenue requirements, levelized to provide participants with a fixed cost over time, and in return receive benefits in the form of bill credits, projected at the time of filing and paid out over time.

The Program is projected to generate $139 million in net cost savings, with approximately 80% of the savings allocated to participating customers and 20% allocated to FPL's general body of customers. The basic principles underlying the structure include: Accessibility, Fair value proposition, Flexibility, Fairness, Cost-effectiveness and Transparency. If approved, FPL SolarTogether would be the largest community solar program ever created in the U.S. It would substantially increase fuel diversity, reduce greenhouse gas emissions and help elevate the state of Florida to a leadership position globally in solar energy. Enrollment is expected to begin in early 2020, subject to Program approval.

II. PROGRAM DESIGN

Q. Please describe FPL SolarTogether.

A. FPL SolarTogether is a community solar program through which participants can voluntarily subscribe to a share of new solar energy centers and receive a bill credit for their share of power produced. While no two community solar programs are the same, the design of FPL SolarTogether incorporates elements from other successful community solar programs offered throughout the U.S. Fundamentally, FPL SolarTogether is intended to address the significant desire among many FPL customers for a program such as this. Not only would this Program allow FPL to serve this strong customer demand, but it would also continue Florida's successful advancement of affordable clean

energy and establish Florida as a national leader in solar. FPL SolarTogether Phase 1 alone would double the amount of community solar currently offered in the U.S. and make it the largest community solar program in the country.

Under FPL SolarTogether, FPL will build, own and operate Program-designated Centers. Participants will pay approximately 96% of the base revenue requirements of the Program, levelized to provide participants with a fixed cost over time and, in return, receive bill benefits, projected at the time of filing, and paid out over time. The bill impact of the Program for participants is a nominal premium over FPL's standard service at the outset, and the longer a participant remains in the Program, the greater the benefit. The terms and conditions associated with FPL SolarTogether are described in Tariff STR - Sheet No. 8.932, attached as Exhibit MV-1 to my testimony.

Importantly, the Program is projected to generate $139 million cumulative present value of revenue requirements ("CPVRR") of cost savings for all customers, $28 million of which is allocated to the general body of customers. In this way, FPL SolarTogether is designed to be cost-effective for both the general body of customers and participants. The Program will allow tens of thousands of Floridians to directly support the expansion of solar power and save money on their electric bills over time.

Q. Why is FPL proposing this voluntary solar program?

A. FPL is proposing this innovative new program to meet the substantial demand from customers who are seeking expanded access to solar energy, including those who do not wish to or cannot install their own solar system through net metering. Obviously, investing in net metering is not a viable solution for everyone. Many residential and small business customers, as well as commercial, industrial and governmental ("C&I-G") customers do not have the financial ability to buy or lease a net metering system. Many have unsuitable locations for solar, either due to roof space, roof age, lack of sun exposure or other challenges. Customers who rent their properties may not be permitted to install a solar system at their home or business. In addition, over the past several years, FPL has met with numerous customers, including cities, counties, national retailers and large industrial customers that have all inquired about the availability of renewable programs to meet their organizations' sustainability and financial goals.

Q. Please describe the energy goals that customers have shared with you.

A. For some, those goals represent a policy decision to become 100% renewable by a certain date. For others, it is a means to lower their electricity bill over time. But for many of these customers, it is both. FPL SolarTogether meets these needs extremely well. While the rationale may vary by customer size and type, the common thread is that many FPL customers want a greater percentage of the energy they consume to come from renewable sources and want to enjoy both the financial and sustainability benefits associated with

solar energy.

Q. Does FPL have an understanding of whether residential and small business customers also have an interest in renewable programs of this nature?

A. Yes, the data available to FPL indicates a strong interest in a program of this nature from residential and small business customers. This is evidenced by the more than 50,000 residential customers enrolled in SolarNow, the Company's program that uses voluntary customer contributions to install solar in local communities. Also, there are currently more than 13,000 FPL customers enrolled in net metering. This speaks to a growing demand for solar programs. As previously mentioned, customers are also looking for financial and sustainability benefits, but not all customers are able to participate in net metering. After filing its petition for approval of FPL SolarTogether in March of this year, FPL began initial marketing of the Program to all customers. At the time of this filing 13,000 primarily residential customers have expressed interest in learning more and receiving Program updates.

Q. Why is FPL SolarTogether necessary to meet this demand when net metering and FPL SolarNow are already options?

A. In addition to the net metering limitations I previously mentioned, no single program can meet all customers' varying interests. According to a study by the Smart Electric Power Alliance ("SEPA"), both rooftop and community solar are necessary to satisfy the consumer demand for renewables. The study

also concluded that rooftop solar customers are motivated by energy independence and control, prefer to own solar, and like that the electricity generated goes directly to their home or business. By contrast, community solar customers often cannot afford, lack access to, or do not want net metering, and prefer a program with no maintenance or up front capital costs and less risk. SolarNow is designed for customers interested in expanding solar awareness and education, bringing solar to highly visible locations in their community. FPL SolarTogether addresses the needs of customers who cannot or do not want to own a net metering system, but are seeking a direct bill credit. In this way FPL SolarTogether, SolarNow, and net metering are programs that complement one another and offer different structures and benefits to satisfy diverse customer desires.

Q. What are the basic principles underlying the structure of FPL SolarTogether?

A. FPL's development of FPL SolarTogether was informed by evaluating many different utility-operated community solar programs that exist around the country, selecting the best elements and putting them into a structure that worked best for our customers. Those principles include:

a) Accessibility: FPL SolarTogether expands access to renewable energy programs and provides all customers the opportunity to directly participate in the expansion of new solar energy in Florida and the associated economic and sustainability benefits.

b) Fair value proposition: The bill credit mechanism provides bill savings to

participants and the benefit split between participants and the general body of customers is designed so that over the life of the Centers there is no subsidization by the general body of customers.

c) Flexibility: Participation is entirely voluntary and customers can keep their subscription as long as they remain an FPL customer. Participants may unsubscribe at any time for any reason and are not committed to a long-term contract. Participants may also increase their subscription level once a year based on Program availability and decrease their subscription level at any time.

d) Fairness: All customer classes can participate. Simple payback is the same for all participants regardless of subscription size. Finally, all participants begin earning credits at the same per kilowatt-hour rate regardless of when they first enroll.

e) Cost-effectiveness: All Centers built for the Program are cost-effective and expected to deliver cost savings for all customers and generate bill savings for participants over time.

f) Transparency: The FPL SolarTogether website will disclose the expected Program costs, risks, and benefits to participants. Additionally, the participants' bills will include clearly labeled line items identifying the Program charges and credits.

Q. How much capacity does FPL plan to install for Phase 1 of the Program?

A. In Phase 1, FPL plans to add 20 new solar energy centers between 2020 and 2021, totaling 1,490 MW_{AC}. This phase is designed to support the substantial

demand FPL identified during pre-registration, as well as the anticipated demand from residential and small business customers.

Q. Will FPL offer future phases?

A. Yes, FPL will offer future phases, subject to customer demand, a determination of cost-effectiveness, and regulatory approval. Future phases would be filed with the Florida Public Service Commission ("FPSC") for approval. The subscription costs and credit rates for future phases would reflect the costs and system benefits specific to each phase.

Q. Please describe how FPL SolarTogether works.

A. Customers will have the option to subscribe to kilowatts ("kW") of solar capacity ("Subscription Level") from the Program-dedicated, cost-effective Centers, and may elect a Subscription Level that meets their financial and renewable goals. Participants will pay a monthly charge ("Subscription Charge") for their subscribed capacity and, in turn, will receive credits on their electricity bill reflecting the energy produced by their subscribed share ("Subscription Credit"). In other words, they will receive credits representative of the actual system savings generated by their Subscription Level.

Q Please briefly describe the FPL SolarTogether Subscription Charge and Subscription Credit.

A. The Subscription Charge represents approximately 96% of the base revenue requirements associated with the Program, including the cost to operate the Centers and the Program administrative costs. For Phase 1, it is fixed at $6.76

per kilowatt subscribed per month and will not change over the next 30 years. The Subscription Credit reflects the subscription's share of energy produced by the Centers multiplied by the projected system benefits created by the Program escalated annually ("Subscription Benefit Rate"). The calculations of the Subscription Charge and Subscription Credit are described in greater detail by FPL witness Bores.

Q. Please describe the administrative costs to operate FPL SolarTogether.

A. The administrative costs to operate the Program include expenses associated with: communicating about the Program with customers and marketing it to ensure participation; developing, maintaining, and operating the Program's website and online subscription enrollment platforms; modifying the billing system; and overall Program management and oversight to ensure the Program obligations are met and customers are satisfied.

III. VALUE PROPOSITION FOR PARTICIPANTS

Q. What is the economic value proposition for participants?

A. Participants will receive benefits in the form of bill credits that are designed to grow annually, and over time, the benefits are projected to exceed the subscription costs. FPL estimates that, on a nominal basis, the total cumulative Subscription Credits earned will be greater than the total cumulative Subscription Charges paid by the seventh year of continuous enrollment, assuming output of the solar energy centers based on typical Florida weather.

Participants are expected to achieve this value, known as "simple payback," regardless of Subscription Level.

Q. Please describe how FPL arrived at a seven-year simple payback.

A. As previously mentioned, FPL had many discussions with large customers when designing this Program. Although their reasons for being interested in community solar varied, a top driver was electric bill savings. When evaluating what was a reasonable payback for participants, we considered this customer input as well as the expected payback of net metering options determined to be available to customers in 2020 and 2021 when FPL SolarTogether is expected to launch. Many customers who are used to executing long-term contracts wanted an immediate payback but were willing to accept a five to seven-year simple payback if no long term commitment was required. Other customers stated that their internal metrics usually require simple payback in less than five years.

Given the non-binding nature of the Program along with the absence of an upfront investment by the customer, FPL did not believe simple payback in fewer than seven years was warranted. FPL instead set the simple payback at seven years, the outer limit of the range of payback periods described by many customers. The seven-year payback was the basis of pre-registration pricing, and the overwhelming success verified FPL's view that seven years is appropriate for this Program.

Q. Please explain how the seven-year simple payback affects the pricing components.

A. There are four primary drivers that combine to result in a seven-year payback for participants. First, the Subscription Charge is a levelized payment made by a participant based upon the kW subscribed. Secondly, the Subscription Benefit Rate is a dollar-per-kWh credit applied to the actual energy associated with a subscription each month. Thirdly, the Subscription Benefit Rate escalates each year a participant remains in the Program. Lastly, as mentioned previously, 20% of the net benefits of the Program have been allocated to the general body of customers. Based on an iterative process, FPL evaluated different combinations of Subscription Charge, initial Subscription Benefit Rate, and annual Subscription Benefit Rate escalation rate (assuming the 20% of benefits allocated to the general body of customers) to derive the set of pricing components resulting in a seven-year simple payback.

Q. How will Program billing work for participants?

A. Participants will be billed on a monthly basis for their subscription. To enable greater transparency, the Subscription Charge and Subscription Credit will appear on the participants' bills as two separate incremental and clearly labeled line items. Participants will pay the same base bill; participation does not alter their energy usage or current electric rate structure.

Q. Will fluctuations in weather impact the Subscription Credit received by participants?

A. Yes. Daily and seasonal weather fluctuations will vary the energy output of

the Centers like they do for all solar facilities. Consequently, the Subscription Credits that participants receive on their bills will vary monthly.

IV. VALUE PROPOSITION FOR THE GENERAL BODY OF CUSTOMERS

Q. What is the economic value proposition for the general body of customers?

A. FPL SolarTogether is cost-effective and the Program is expected to have a favorable impact on the general body of customers. Both the costs and benefits are shared between the participants and the general body of customers, and Phase 1 is expected to provide a total of $139 million CPVRR in cost savings for all customers. FPL made the determination to allocate 20% of the expected total CPVRR benefit ($28 million) to the general body of customers. The remaining 80% of the expected total CPVRR benefit or $111 million is allocated to participants in FPL SolarTogether.

Q. Please discuss the factors that relate to the allocation of benefits to the general body of customers.

A. FPL designed this shared savings approach as a safeguard for the general body of customers against uncertainty in the underlying Program assumptions, primarily fuel price decreases. The economic analysis for FPL SolarTogether follows the approach used in all economic analyses filed by FPL with this Commission, and specifically the approach used to support FPL's Solar Base

Rate Adjustment, known as SoBRA. FPL has documented through various analyses and sensitivities that FPL SolarTogether is cost-effective for both participants and the general body of customers. The customer economic benefits are dependent on a number of variables including fuel and carbon pricing, timing and cost of new generation additions, system production profile, capital spend, and O&M costs.

While the level of benefits to the participants is essentially fixed, subject to the actual generation of the Centers, the benefits to the general body of customers are not similarly fixed. If fuel prices and/or CO_2 compliance costs are higher than forecasted, the general body of customers would see more than the expected $28 million in CPVRR benefit, all else equal, while the participant benefits would be unchanged. Likewise, if fuel prices and/or CO_2 compliance costs are lower than forecasted, the general body of customers would see less than the expected $28 million in CPVRR benefit, all else equal. FPL is therefore allocating 20% of the expected $139 million CPVRR net benefits to the general body of customers, far more than their proportional share. In addition, any portion of capacity not subscribed will increase the benefits of the general body of customers.

V. PROGRAM TERMS

Q. Who is eligible to enroll in FPL SolarTogether?

A. All FPL customers under a metered rate schedule will be eligible to enroll so long as their account is not delinquent.

Q. Is there a maximum capacity Subscription Level?

A. Yes. No single metered account can subscribe to capacity that represents more than 100% of its previous 12-month total energy usage (kWh). In this way, a participant is subscribing to a capacity that is expected to generate approximately what they consume in an annual period. FPL will review all enrolled accounts annually to ensure that participants are not exceeding their maximum allowable subscription and will make adjustments if needed.

Q. How will FPL ensure all customer classes can participate?

A. FPL will allocate the available capacity by customer class to support the diversity of participants and to ensure customers of all types and sizes have an opportunity to participate. Initially, 25% of Program capacity is designated for residential and small business customers and 75% of Program capacity is designated for commercial, industrial and governmental customers. For Phase 1, this is 372.5 MW_{AC} and 1,117.5 MW_{AC}, respectively. FPL will periodically reevaluate demand and, if warranted, reassign unsubscribed capacity between the groups and adjust the allocation as appropriate. This will help ensure the allocation aligns with customer demand for the Program and that customers from one group are not waitlisted while unsubscribed capacity sits unused by

the other customer group. FPL also reserves the right to implement a cap on the maximum portion of Program capacity that can be attributed to any one subscriber.

Q. How did FPL determine the 75%/25% allocation between customer classes?

A. FPL determined that establishing allocations to ensure all customer classes can participate is a best practice in community solar, but no single allocation has emerged as the best solution. Due to the substantial difference in energy usage between customer classes, a large amount of capacity is required to meet the needs of commercial, industrial and governmental customers, whereas a smaller amount of capacity is required for residential and small business customers that use comparatively less energy. Accounts taking service under a demand-rate rate structure are classified as C&I-G and non-demand rate customers are considered residential and small business.

For Phase 1, 25% of Program capacity (372.5 MW_{AC}) will enable approximately 74,500 residential and small business customers to participate, assuming a subscription of 5 kW each. A 5 kW subscription reflects estimated capacity for a typical FPL customer using 1,000 kWh per month. The remaining 1,117.5 MW_{AC}, or 75% of Phase 1 Program capacity, allocated for commercial, industrial and governmental customers aligns with the level of capacity reserved during preregistration and enables enrollment of approximately 200 customers ranging from counties to hospitals to retail

chains.

Q. When and how will customers enroll in FPL SolarTogether?

A. Upon FPSC approval of the Program, FPL plans to conduct open enrollment for residential and small business customers, in addition to any commercial, industrial and governmental customers who elected not to pre-register. At this point in time, FPL expects open enrollment will begin as early as January 13, 2020, approximately two months prior to the first anticipated FPL SolarTogether billing date.

A web-based enrollment platform will help customers determine the maximum capacity to which they can subscribe based on their usage history. The enrollment system will convert the customer's electricity usage for the preceding 12 months into an equivalent solar capacity value measured in kilowatts to establish that customer's maximum enrollment subscription. The enrollment system will also allow customers to view and select the subscription level that best suits their needs by providing a side-by-side comparison of net Program costs under different subscription levels. FPL Customer Service representatives will be trained to assist customers through the enrollment process.

Q. How will FPL enrollment subscriptions be filled and when will subscription billing start?

A. The Program is first-come, first-served, and participants' reservations, including pre-registrants', are time-stamped. Phase 1 consists of five FPL

SolarTogether Projects that comprise a total of 20 74.5-MW_{AC} solar energy centers. Participants will be assigned to one of the five Projects as they become operationally available. Billing will then begin after one full calendar month of operation. Table 1 shows a detailed breakdown of the allocation and billing start dates across the five proposed Projects.

TABLE 1

	Project Size	Comm. Operation Date (Est.)	Billing Start Date (Est.)	Subscription Credit Based on Actual Generation from	Program Capacity	Subscriptions Allocated to C&I-G	Subscriptions Allocated to Resi-SMB
ST Project 1	223.5 MW	2/1/2020	3/1/2020	ST Project 1	223.5 MW	167.625 MW	55.875 MW
ST Project 2	223.5 MW	2/1/2020	3/1/2020	ST Project 1+2	447.0 MW	335.250 MW	111.750 MW
ST Project 3	447 MW	1/1/2021	2/1/2021	ST Project 1+2+3	894 MW	670.500 MW	223.500 MW
ST Project 4	298 MW	4/1/2021	5/1/2021	ST Project 1+2+3+4	1,192 MW	894.000 MW	298.000 MW
ST Project 5	298 MW	4/1/2021	5/1/2021	ST Project 1+2+3+4+-5	1,490 MW	1,117.500 MW	372.500 MW

For example, for ST Project 1, FPL will assign 167 MW_{AC} to the commercial, industrial, and governmental customers with the earliest reservation timestamps and will assign 55 MW_{AC} to the residential and small business customers with the earliest reservation timestamps, and billing will begin on March 1, 2020.

Q. How does FPL plan to manage over-subscription?

A. Once subscriptions reach the Program limit, interested customers will be waitlisted. FPL's intent is to offer future phases based on customer demand. If demand exists and the subscription growth rates indicate demand will continue to grow, FPL plans to begin to develop the next phase.

Q. Are there any other terms and conditions of the Program?

A. FPL SolarTogether is designed to be as flexible and hassle-free as possible for customers.

a) No upfront cost. Participants simply pay for their subscription monthly.

b) No long-term contract. FPL SolarTogether is a voluntary and flexible community solar program. Participants will not be tied to a long-term commitment. Upon notice to FPL, participants may terminate their participation in the Program at any time for any reason without penalty. Termination will be effective the following billing cycle.

c) Participants may elect to have the renewable energy credits associated with their subscription retired on their behalf.

d) Participation is portable within FPL's service area. Participants who move premises within FPL's service area may remain subscribed to the Program and continue to receive the benefits of their subscription. They will be deemed to have continuous, uninterrupted enrollment for the purpose of determining their FPL SolarTogether benefits. For example, a business that closes or moves one storefront and wants to shift its subscription to another location may do so assuming they continue to meet the Program's other criteria.

e) FPL will maintain the right to terminate participation of any customer whose service account becomes delinquent.

f) Upon either voluntary or involuntary termination of participation, the customer may not re-enroll in the Program for a 12-month period, and any

new participation request is subject to subscription availability.

VI. PROGRAM DEMAND

Q. Why did FPL offer pre-registration for C&I-G customers?

A. FPL offered pre-registration for C&I-G customers in order to gauge interest and demand for FPL SolarTogether. In a SEPA study, more than half of utilities said signing up initial customers was the biggest challenge. FPL wanted to ensure the program was sized appropriately to accommodate the significant potential market size and to ensure the program would be fully subscribed. While FPL had enough information to suggest that residential and small business customers were interested in the program, it was unclear how much interest there would be from C&I-G customers. Based on inquiries over the years, FPL believed there would be interest from some C&I-G customers. The Company recognized that subscriptions from even a relatively small number of C&I-G customers could significantly impact the program's size. For example, FPL's largest customer would require 500 MW of solar in order to meet its 100% renewable goal. Thus, FPL opened a pre-registration period from November 29, 2018 through January 25, 2019.

Q. Did FPL offer pre-registration to test residential and small business customer interest?

A. No. It was not necessary to conduct pre-registration for non-demand customer classes (comprising more than 4.3 million residential and small business

customers) because no individual non-demand customer could materially impact the program's capacity in the way that a commercial, industrial, or governmental customer could as described above.

FPL is confident that interest exists among many of its non-demand customers. Today within the FPL service area there are more than 50,000 SolarNow participants and more than 13,000 customers who participate in net metering. Each of these programs has seen increased levels of interest in the last 12-18 months, indicating that there is growing market demand within this segment for different types of solar offerings. Based on this data, FPL set aside a certain amount of capacity to ensure FPL SolarTogether could accommodate initial anticipated interest.

Q. Describe the methods by which FPL offered pre-registration to C&I-G customers.

A. Prior to and during pre-registration, FPL conducted outreach via email to approximately 100,000 C&I-G accounts. FPL held five educational webinars that were attended by representatives from approximately 500 customers. Additionally, a specially designed pre-registration informational website was launched and visited by approximately 4,500 customers. Each pre-registrant was directed to an online reservation system where they were required to complete their pre-registration reservation form. FPL representatives were also available to explain the Program, answer customer specific questions and assist in the signup process. To ensure an accurate accounting of capacity

demand for the Program, FPL required that customers wishing to reserve capacity sign contracts demonstrating their commitment to enroll so long as the pricing and terms they signed up for remained substantially the same.

Q. What was the response to FPL's pre-registration?

A. More than 200 customers reserved capacity totaling approximately 1,100 MW, with many of these customers reserving a subscription equal to 75% to 100% of their accounts' annual energy usage. Based on the high level of customer interest demonstrated during pre-registration, FPL sized the initial Program at 1,490 MW_{AC}. This size accommodates nearly all of the pre-registered reservations requested while preserving 372.5 MW_{AC} of capacity for residential and small business customers.

Q. Does this conclude your direct testimony?

A. Yes.

BY MS. MONCADA:

Q Mr. Valle, along with this prefiled testimony did you include Exhibit MV-1?

A Yes.

Q Do you have any corrections to the exhibits?

A I do not.

Q Thank you.

MS. MONCADA: Mr. Chairman, this has been identified on staff's list as Exhibit 2.

CHAIRMAN CLARK: Yes.

BY MS. MONCADA:

Q Mr. Valle, did you also cause to be filed 19 pages of rebuttal testimony on September 23rd, 2019?

A Yes.

Q Do you have any changes or corrections to this testimony?

A No.

Q If I were to ask you the same questions, would your answers be the same?

A Yes, they would.

MS. MONCADA: Mr. Chairman, FPL requests that Mr. Valle's September 23rd rebuttal testimony be entered into the record as though read.

CHAIRMAN CLARK: Show it done.

(Whereupon, prefiled rebuttal testimony was

inserted.)

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Matthew Valle. My business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. Did you previously submit direct testimony in this proceeding?

A. Yes.

Q. Are you sponsoring any rebuttal exhibits in this case?

A. Yes. I am sponsoring the following exhibit:

- MV-2 – STR – Revised Tariff No. 8.932 in Legislative and Proposed Formats

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to and address the positions and recommendations presented by Office of Public Counsel ("OPC") witness Dauphinais, Vote Solar witness Cox, Walmart witness Chriss, Southern Alliance for Clean Energy ("SACE") witness Jacob and Florida Public Service Commission ("Commission") Staff witness Hinton. In addition, I describe the FPL SolarTogether Program's ("Program") design changes based on the updated economic analysis performed in response to questions raised by Staff, described in detail by FPL witness Enjamio, and in response to some of the concerns raised by witnesses who have submitted testimony in this proceeding.

Q. Please summarize your rebuttal testimony.

A. Commission Staff witness Hinton suggests in his testimony that FPL SolarTogether is different in terms of cost recovery and the manner in which generation is added. He

is right, in part. But its uniqueness lies not in the foundational principles of resource planning or even in adoption of voluntary programs to encourage solar participation. To the contrary, my rebuttal testimony explains that FPL SolarTogether features elements the Commission previously has seen and approved. First, it is a voluntary tariff through which customers can choose to contribute directly to solar development in Florida. Second, the Program enables construction of cost-effective solar using the same resource planning standard FPL has for years presented to the Commission. And, yes, FPL SolarTogether is also new. The economics of solar energy have advanced over the past decade, and, seizing on that progress, FPL now presents the Commission, its customers and the state of Florida a Program that allows participants and the general body of customers to share program costs and benefits. This concept not only satisfies an increasing level of customer demand for expanded access to solar energy but as I later explain in my testimony, it creates benefits for the general body of customers that might not otherwise exist.

In addition, my rebuttal testimony describes certain program enhancements in response to questions and concerns that have been raised, which enhancements are enabled as a result of an updated economic analysis showing that the benefits generated by FPL SolarTogether are even greater than originally estimated. In short, the program changes will allow the general body of customers to share in even more of the benefits of this initiative. My testimony also explains that, contrary to the testimony of intervenor witnesses, FPL SolarTogether expands access to solar for all customers, not just a few. Finally, I explain that using Purchase Power Agreements

("PPA") would have introduced significant uncertainties that could jeopardize the Program's ability to meet customer demands.

II. PROGRAM DESIGN

Q. Commission witness Hinton observes that FPL SolarTogether seems to differ in structure from the manner in which generation has been added historically in Florida. What is FPL's response?

A. While it is true that the use of a voluntary tariff as the mechanism to enable the addition of generation is structurally different from our historical approach, the Program's design is simply the latest innovation in the ongoing logical evolution of how solar resources are being incorporated into Florida's generation mix. FPL SolarTogether recognizes solar's unique benefits and the growing desire among Floridians to participate in the advancement of solar, but it is also firmly rooted in the Commission's long-standing commitment to ensuring cost-effectiveness and protecting customers.

Q. Please explain the evolution to which you refer.

A. The manner in which solar has grown in Florida has evolved over the years. In 2008, FPL sought approval for the first large-scale solar generation ever built in Florida, pursuant to legislation passed that year that recognized the value to the public of investing in renewable energy despite its relatively higher cost at the time. The Commission approved FPL's proposal to add 110 MW of solar – which cost

approximately $5,600 per kW to build – for recovery through the Environmental Cost Recovery Clause.

In 2014, the Commission approved SolarNow, a voluntary solar program that provides FPL customers the opportunity to participate in the construction of small-scale, community-based solar projects by contributing $9 per month. Customer participation in the program reached 26,670 by 2017 and has grown to more than 50,000 today.

During 2016, FPL built approximately 224 MW of new solar generation across three sites to serve its customers – essentially tripling the amount of solar in the state. For the first time, solar had been built cost-effectively in Florida, and the costs were included in rate base.

In late 2016, the Commission approved FPL's base rate settlement agreement, which included a new mechanism authorizing FPL to construct up to 300 MW a year of new solar generation for inclusion in rate base as long as the projects were determined to be cost-effective. That Solar Base Rate Adjustment ("SoBRA") mechanism facilitated the addition of 894 MW of solar resources that are currently serving FPL customers and another 298 MW on track to be placed in service in 2020. The average projected price for FPL SoBRA Projects has been $1,413/kW$_{AC}$ – dramatically lower than it had been just a decade ago. Subsequently, the Commission approved similar SoBRA mechanisms for Duke Energy Florida and Tampa Electric Company. In total,

the SoBRA approach is providing the impetus for the cost-effective addition of roughly 2,500 MW of solar across Florida.

Q. What should the Commission glean from this history?

A. A few things:

- The cost recovery mechanisms through which solar generation has been introduced have varied over the years: clause recovery; a voluntary tariff; rate base with change in rates at the time of a rate case; and a discrete base rate adjustment mechanism.
- FPL and Florida have not been afraid to innovate and lead in the development of cost-effective solar, and the Commission's regulatory policies supporting innovation (e.g., the SoBRA mechanism) have benefitted not only FPL's customers but the state of Florida as a whole.
- Floridians' interest in and support for reliable, cost-effective solar energy is very real, and it continues to grow. Thus, FPL SolarTogether is important because it offers a new choice for customers.
- The cost of solar has decreased substantially over the last decade, creating even better opportunities for customers to directly participate in advancing reliable, cost-effective solar.

Q. In response to Commission witness Hinton, you noted that the FPL SolarTogether Program is rooted in the Commission's long-standing commitment to ensuring cost-effectiveness and protecting customers. What aspects of the Program align with Commission precedent?

A. Most fundamentally, the FPL SolarTogether solar energy centers, like those built in 2016 and those constructed pursuant to the SoBRA mechanism, are projected to be cost-effective for all of FPL's customers. As explained by FPL witness Enjamio, the methodology employed to measure the cost-effectiveness of the Program's generation additions is the same one FPL has presented to the Commission for many years. Also, the general body of customers will receive the projected benefits of the Program's generation additions just like they receive the projected benefits of any generation addition approved by the Commission. Finally, similar to the Commission-approved SolarNow offering, FPL SolarTogether would be an optional tariff pursuant to which customers can choose to make voluntary payments that directly support the construction of solar in Florida.

Q. Commission witness Hinton testifies that the manner in which the Program allocates the costs and benefits of the generation departs from traditional cost recovery. What is your response?

A. Yes, Witness Hinton is correct; however, FPL views this difference as a step forward, rather than as a negative. First, as I stated earlier, cost recovery for solar generation has taken different forms over the past decade, evolving as Florida has sought to increase the amount of solar generation in its generation mix. Second, as explained by FPL witnesses Deason and Huber, the innovative structure of the program creates

benefits for the general body of customers that might not otherwise exist. In short, if FPL can create a program that provides for voluntary subscriptions by customers very interested in a particular form of generation, while providing the general body of customers with projected benefits in the same way that generation planning has been modeled for years, the result is an innovative program that benefits all FPL customers.

Q. Staff witness Hinton observes that a utility is not required to obtain prior approval from the Commission to construct certain facilities. Could new solar generation be added to FPL's system without a tariff offering?

A. Yes, but that would ignore the primary purpose served by this program, which is to help meet a growing customer demand for more direct involvement in the advancement of solar and to offer customers more choices. Customers have requested that FPL, as their electric service provider, afford them options for participation. Tens of thousands of residential and small business customers have expressed interest in participating, and an impressive cross-section of FPL's largest customers – ranging from counties to corporations – have already pre-registered for Program. FPL SolarTogether uniquely serves a segment of customers' interest in participating in solar energy and receiving direct bill benefits while also sharing some of those benefits with the general body of customers.

Q. Witness Dauphinais expresses concern that FPL SolarTogether is "involuntary for non-participants." Do you agree?

A. No. Because FPL SolarTogether is cost-effective, both participants and the general body of customers are projected to receive benefits. Witness Dauphinais's

observation that projections involve risk ignores the way in which the generation under this program in particular, like FPL's generation in general, is planned for the benefit of all our customers. All generation planning is inherently subject to fluctuations in fuel and emission costs.

Mr. Dauphinais also fails to acknowledge that, from the perspective of the general body of customers, FPL SolarTogether compares very favorably to private customer-owned solar. Under the state's net metering rule, utilities are required to compensate owners of customer-owned private solar installations at the full retail rate for excess energy delivered to the grid. This results in each utility's general body of customers paying private solar owners more than the actual value of the energy their systems provide to a grid, resulting in a cross-subsidy. Today, FPL estimates that this cross-subsidization has an annual impact of $13 million on its general body of customers. If private customer-owned solar systems totaling 1.49 GW – the amount of solar generation proposed under FPL SolarTogether – were to be installed and net-metered in FPL's service area, the resulting cross-subsidy would be estimated to grow to $121 million by 2022. Over the 30-year life of the generating assets, this would accumulate to a present value of more than $1 billion without taking into account any changes in electricity rates or net metering rules. Contrast this to the projections for FPL SolarTogether that show $112 million of savings for the general body of customers over the same 30-year period.

III. UPDATED PROGRAM ECONOMICS

Q. OPC witness Dauphinais asserts that the general body of customers bears all of the risks associated with FPL SolarTogether's costs and benefits. Please explain whether the Program reasonably allocates benefits and costs for participants and the general body of customers.

A. Witness Dauphinais's contention is not correct. As originally filed, the program was designed such that participants and the general body of customers shared in both the costs and benefits of the program. In exchange for contributing four percent of the revenue requirements, the general body was to share in 20% of the benefits. While I believe this allocation of benefits between participants and the general body was reasonable, an updated economic analysis was performed, and the results are even more favorable for both groups.

Q. Please describe the updated FPL SolarTogether economic analysis and the resulting changes to the Program's benefit sharing feature.

A. There are two improvements to the Program cost-effectiveness – an overall reduction to the project costs and an update to the non-fuel benefits. FPL witness Enjamio explains that the Company updated the FPL SolarTogether economic analysis to incorporate inputs that Commission Staff requested in the discovery process and to account for the elimination of allowance for funds used during construction ("AFUDC"). FPL witness Bores explains why Projects 3, 4 and 5 no longer will qualify for AFUDC. These updates improve the CPVRR benefit by $110 million, from $139 million to $249 million.

With more benefits to share, FPL is able to adjust the net benefit sharing allocations. Under the original economic analysis, FPL had based the Program's pricing structure on an 80%-20% allocation of the $139 million in projected net benefits in the base case. This meant that participants would have received approximately $111 million of the net benefits and the general body of customers would have received $28 million. Under the updated economic analysis, FPL proposes to base the Program's pricing structure on a 55%-45% allocation of the $249 million in net benefits. This results in $137 million for participants and $112 million for the general body of customers. In other words, the economics for both the general body and the participants have improved significantly.

Under updated pricing and allocation, the general body of customers will not pay for any of the cost of the solar centers, but now will receive 45% of the net benefits under the base case. Conversely, the participants are paying all of the costs while receiving just over half of the benefits. While there may be a range of different percentages that could be drawn, any one of which might be found to be reasonable, certainly this proposed allocation should be considered reasonable from the standpoint of the general body of customers.

Q. Does FPL also propose any changes to cost sharing under the Program?

A. Yes. FPL proposes that, based on the new analysis, contributions from the participants will total 104.5% of the Program base revenue requirements. This means the general body of customers is not expected to contribute to the Program costs and are expected to receive approximately $56 million in fixed base benefits that are not

subject to fluctuations in fuel or emissions costs. As explained by FPL witness Bores and reflected in Exhibit MV-2, the updated pricing reflects a slight decrease in the subscription cost per kilowatt of capacity, a reduction in the first-year benefit rate per kilowatt hour and an increase in the annual benefit escalation rate.

These adjustments maintain an estimated seven-year simple payback and allow the Program to continue to meet the principles laid out in my direct testimony while incorporating additional protections for the general body of customers. The bases for the updated economic analysis are described by FPL witnesses Enjamio and Bores. For ease of reference, side-by-side comparisons of the cost and benefit sharing are provided below in Tables 1 and 2. Table 3 shows the updated sensitivity analysis under the new pricing.

Table 1 – CPVRR ($MM)

	Petition Filing			Updated Analysis		
	Costs	Benefits	Net (Fav)/Unfav	Costs	Benefits	Net (Fav)/Unfav
Participants	$1,321	$1,432	($111)	$1,315	$1,452	($137)
General Body of Customers	$49	$77	($28)	($56)	$56	($112)
Total	**$1,370**	**$1,509**	**($139)**	**$1,259**	**$1,508**	**($249)**

Table 2 – Pricing

	Petition Pricing	Updated Pricing
Subscription Rate	$6.76 per kW	$6.73 per kW
Benefit Rate	$0.034288 per kWh	$0.033910 per kWh
Benefit Rate Escalation	1.45% annually	1.70% annually
Simple Payback	7 years	7 years

Table 3 – Sensitivity Analysis ($MM)

Fuel Cost Forecast	Environmental Compliance Cost Forecast	Net Difference (Fav)/Unfav
High Fuel Cost	Low CO_2	($323)
High Fuel Cost	Mid CO_2	($414)
High Fuel Cost	High CO_2	($563)
Mid Fuel Cost	Low CO_2	($159)
Mid Fuel Cost	Mid CO_2	($249)
Mid Fuel Cost	High CO_2	($401)
Low Fuel Cost	Low CO_2	$8
Low Fuel Cost	Mid CO_2	($82)
Low Fuel Cost	High CO_2	($232)

IV. PROGRAM CAPACITY ALLOCATION

Q. Please respond to Vote Solar witness Cox's concern that FPL's right to reallocate could prevent participation by any customer group.

A. The reason for FPL to have the ability to reallocate is that it provides operational flexibility to meet customer needs that could vary over the life of the Program. When there is unsubscribed capacity, if appropriate, adjustments will be made to accommodate waitlisted customers. Any potential future reallocation would be premised on historical behavior and trends among the customer groups. Contrary to Vote Solar witness Cox, the point would be to match – not counter – customers' expressed desire to participate. For additional transparency, FPL would have no objection to reporting allocation changes.

Q. How accurate is Vote Solar witness Cox's assessment of the outreach FPL performed to different customer classes?

A. Vote Solar witness Cox's claim that the "interests of small business and residential customers don't seem to have been a major concern for FPL in program design or customer engagement" is not accurate. In reality, FPL SolarTogether's development and design has incorporated residential and small business customers from its inception and has incorporated customer input in order to better serve them. For example, one of the Program's features designed specifically in response to residential customer feedback is the detailed online calculator that will allow potential participants to truly understand the Program's economics. Although witness Cox misperceives this offering as a threat to private customer-owned solar, the reality is

that the calculator will provide customers what they have been asking for: the ability to examine solar economics in a way that private solar companies often do not provide. Certainly, there is no single right way to design a customer solar offering that satisfies all interests, but FPL SolarTogether builds on other solar programs, particularly in terms of inclusivity and economics.

Q. Has the Company seen interest in the Program from residential and small business customers?

A. Yes, the interest from residential and small business customers has been very strong. In the last few months, FPL's outreach to residential and small business customers so far has generated affirmative interest from more than 55,000 residential and nearly 2,500 small and medium business customers. In addition, FPL has received interest from a number of commercial, industrial and governmental customers that were not pre-registered. Of course, FPL does not expect all current leads to actually sign up for the program once enrollment commences; however, the Company does believe there will be a high conversion rate – and FPL receives additional interest in the program nearly every day.

Q. SACE witness Jacob and Vote Solar witness Cox recommend that the Program facilitate low-income customer participation. Does the Program enhance low-income customers' opportunity to participate in solar?

A. Yes. Today residential customers can participate in solar in two ways – through private customer-owned solar and FPL's SolarNow program. Private customer-owned solar options, including cash purchase, leasing or loans, are limited by a variety of factors such as home ownership, roof viability and a customer's financial

and credit circumstances. For these reasons, private solar simply is not an option for many people, including low-income customers. FPL's SolarNow program enables customers to support community-based solar installations by contributing $9 per month, but because it does not provide a monthly bill credit, participation can be out of reach for low-income customers.

Through the proposed FPL SolarTogether Program, FPL removes most of the traditional barriers for low-income participation in solar. For example, there are no upfront costs, no long-term commitment and no penalty for leaving. The program's direct bill benefits, over time, result in a favorable payback. In addition, although there is a net premium to participate in FPL SolarTogether in the early years, it equates to an average monthly impact of less than $2 a month for a typical residential customer who wants to be 100% solar.

Q. Does FPL believe that access to the Program for low-income customers could be enhanced?

A. Potentially, yes. FPL supports the idea of providing opportunities for participation in solar programs to as many customers as possible. As suggested by Vote Solar witness Cox and SACE witness Jacob, if a future FPL SolarTogether phase is warranted, FPL would consider introducing a component to the Program that reserves capacity for low-income customers.

V. PROJECT DEVELOPMENT & PROCUREMENT

Q. Some intervenor witnesses suggest that FPL should examine competitive solicitations of solar power, such as PPAs. Explain why FPL did not use PPAs as part of the Program.

A. As a threshold matter, these witnesss have overlooked the fact that the generation FPL proposes to build as part of the Program boasts the lowest-cost solar the Company has ever constructed and is expected to generate among the highest CPVRR benefits per site for customers.

Contrary to the intervenors' suggestion, PPAs were not suitable for the Program. The use of PPAs would require FPL to significantly alter the cost and benefit structure of the Program to account for the different manner in which costs are realized compared to a solar site constructed and operated by FPL. Combined with varying cost and production levels across PPA projects, using PPAs would have altered the Program's economic profile and potentially would reduce customer satisfaction.

Additionally, FPL had to balance price, risk, and terms with timing necessary to meet customer demand under the Program. Outsourcing the design, development, construction, ownership, and operations of a set of the Program's generation assets through a PPA presented too many challenges and risks. The actions of a third party developer are rationally governed by the terms of their PPA, not by the overall value or customer impact. Economic decisions by the solar developer regarding such things

as in-service timing, outage responses or production expectations could have a significant negative impact on the implementation of the Program, or satisfaction of those enrolled in it. If FPL were instead to negotiate stronger "non-market" terms and conditions to protect the integrity of the Program, this would be reflected in higher PPA prices with longer times to negotiate which would likewise put the Program at risk.

Q. Do PPAs present risks aside from their structure and terms?

A. Yes. In addition to cost structure and terms, many developers seek PPAs with no intent of long-term ownership. Their intent is to sell the PPA to another party and move on to "flipping" their next project. This introduces another element of uncertainty. Direct development and ownership of the solar projects included in the Program eliminates many of these issues and allows FPL to properly balance project decisions aimed at promoting the overall Program's success. The competitive economics and the flexible terms that generated such a favorable customer response simply could not have been offered if the Program were underpinned by PPAs.

VI. RENEWABLE ENERGY CERTIFICATES

Q. Walmart witness Chriss recommends that the tariff clearly articulate the program's renewable energy certificate ("REC") retirement feature in order to avoid participants misrepresenting their participation and consumption of renewable energy. What is FPL's intent with respect to the RECs produced by the FPL SolarTogether Projects?

A. The intent of the Program was to retire RECs at the participant's request. To provide clarity as suggested by Walmart witness Chriss, FPL has revised Tariff 8.932, which is attached as Exhibit MV-2.

Q. Does this conclude your rebuttal testimony?

A. Yes.

BY MS. MONCADA:

Q And along with this testimony, Mr. Valle, did you include MV-2?

A Yes.

Q Do you have any corrections or changes to this exhibit?

A No.

MS. MONCADA: Mr. Chairman, on staff's list, this exhibit appears as No. 28.

CHAIRMAN CLARK: Yes.

MS. MONCADA: Thank you.

BY MS. MONCADA:

Q Mr. Valle, have you prepared a summary of your direct and rebuttal testimony?

A Yes, I have.

Q Could you pry that to the Commission, please?

A Sure.

Good afternoon, Chairman Clark and Commissioners. My name is Matt Valle, and I am Vice-President of Development at FPL.

I have overseen the creation and the development of this program over the last several years. And my direct and rebuttal testimony, in large part, focuses on the design and the importance of meeting the needs and the interest of customers.

Across the country, community solar programs have emerged to meet the substantial and growing need from customers for opportunities to participate more directly in solar and receive some type of financial benefits on their electric bills. Seeing this demand grow among our customers over the last several years, has led us to develop it program.

Before proposing the program, we studied numerous community solar programs around the country and worked with our customers to design the right offering. In fact, we have continued to work with those stakeholders to refine the program over the last several years. The result is a next generation program that represents responsible, innovative evolution in the way that we meet our customers' needs.

For some much our largest customers, which include national retailers, large industrials, some of the most plated cities and counties in the state of Florida, participating in the advancement of renewable energy is a matter of strategic importance. And for many of our residential and smaller business customers, supporting solar energy serves as a tangible way to have an impact in their community and in their world.

To meet these needs, the development of this program is rooted in several key principles. Chief

among them are cost-effectiveness, a commitment to fairness and an emphasis on accessibility.

Regarding cost-effectiveness, the FPL Solar -- SolarTogether program is cost-effective and based on methodology consistent with previous Commission approved programs such as SoBRA. Overall, it is projected to generated $249 million of total net savings.

Regarding fairness, the program enables participants to go solar and earn credits over time to reach a financial payback that compares favorably with alternatives. And as the name implies, FPL SolarTogether advances solar energy, so everyone shares in the benefits whether or not they choose to participate.

The program is based on the general body of customers receiving 45 percent of the savings of the program, and an estimated $112 million in paying no net costs over the life of the program.

And finally on accessibility, the program expands access to solar energy in Florida by allowing for greater participation and by more customers. The program offers an opportunity to directly participate in the advancement of solar in Florida to all of our customers, including those who cannot or do not wish to install their own system. And all customer classes,

municipalities, school districts, major corporations, local small businesses, residential customers can participate.

In addition, working with our partners, Vote Solar, Wal-Mart and Southern Alliance for Clean Energy, we were able to designate a portion of capacity for low income households, and this will make SolarTogether the most inclusive solar program in the country.

In closing, I would highlight the fact that the mechanisms that have facilitated solar's growth in that have varied over the years. From clause recovery to voluntary tariffs to rate base and to most recently SoBRA, SolarTogether now presents a new alternative that will bring more solar into our fuel mix and help meet customer driven demand.

And as our pre-registration process showed, the need for this program is real, with commitments over 1,100 megawatts from our largest customers. And since then, we also have received interest from more than 100,000 residential and small business customers who are interested in learning more about this program and potentially signing up.

At its core, FPL's SolarTogether is about listening to our customers and evolving the way we operate to better serve them. If approved, the program

would solidify Florida as a national leader in expanding solar energy affordably. We believe we've designed a best-in-class program built from years in conversations with our customers, leveraging Best Practices from around the country and grounded methodologies from here in Florida to create a meaningful, cost-effective offering for our customers that truly advances solar in the sunshine state.

This concludes my summary. I am happy to take your questions.

MS. MONCADA: Thank you, Mr. Chairman Mr. Valle is available for questions.

CHAIRMAN CLARK: All right. Mr. Rehwinkel.

MR. REHWINKEL: Thank you, Mr. Chairman.

CROSS EXAMINATION

BY MR. REHWINKEL:

Q Good afternoon, Mr. Valle.

A Good afternoon.

Q I think it's fair to say you were one of the folks that I referred to when I said I complimented your -- your engagement with solar, so I just want to start off with that.

It's good to see you again.

A Good to see you.

Q And as you know, I represent the Public

Counsel's office and FPL customers.

Mr. Valle, is it true that you are the lead witness on the SolarTogether program petition?

A Yes.

Q Okay. And would it also be true that you are the witness who is most familiar with SolarTogether program details?

A Yes.

Q Is it true that the tariff that your testimony supports today is the one that is a attached to the settlement that FPL filed with one large customer and some environmental advocacy interests?

A Yes.

Q Okay. Can we agree that that tariff that's attached, can we call that -- can you agree with me to call that the pending tariff?

A Yes.

Q Okay. It supersedes any other tariff that the company would have filed?

A That's correct.

Q Okay. Are you also the FPL witness who was supporting the settlement document on behalf of the company?

A Yes.

Q Okay. Can you tell me how many customers are

represented by the signatories to the settlement document?

A I am sorry, I don't understand the question. How many -- are you asking how many low income customers?

Q I am asking, of the signatories to the docket, to the settlement, it's FPL, Wal-Mart, Vote Solar, SACE -- and am I leaving somebody out?

A No. Those are the parties.

Q That's it, okay. So of those signatories, who represents customers?

A Wal-Mart is a direct customer, as we just heard, of FPL. The SACE and Vote Solar are advocacy groups that support policy around the country.

Q Okay. Would you also agree with me that FPL reached -- signed agreements with the signatories before 9:15 a.m. on October 3rd, 2019?

MS. MONCADA: Can you repeat the question?

BY MR. REHWINKEL:

Q Would you agree with me that FPL reached signed agreements with the signatories before 9:15 a.m. on October 3rd, 2019?

A Mr. Rehwinkel, I am not sure of the exact time. One clarification for the benefit of everyone that I was not directly negotiating the settlement

agreement, although I am representing it here.

Q Okay. Do you know when the settlement agreement was reached?

A I do not know precisely the time.

Q Do you have any reason to believe that it was after 9:15 on October 3rd, 2019?

MS. MONCADA: Objection. The witness has stated that he --

CHAIRMAN CLARK: Sustained.

MS. MONCADA: -- does not know.

CHAIRMAN CLARK: Sustained.

BY MR. REHWINKEL:

Q Would you agree with me that prior to October 3rd, 2019, FPL did not advise the OPC of the existence of any aspect of the settlement process that was ongoing and which resulted in the signatories --

MS. MONCADA: Mr. Chairman --

BY MR. REHWINKEL:

Q -- that now appear on the filed settlement?

MS. MONCADA: I object to this question and any other questions going forward regarding the nature of the settlement. Everything regarding the settlement leading up -- the negotiations leading up to the culmination and filing of the settlement are subject to nondisclosure agreements.

MR. REHWINKEL: May I be heard on that, Mr. Chairman?

CHAIRMAN CLARK: Yes, Mr. Rehwinkel.

MR. REHWINKEL: We just heard from Wal-Mart, she -- the attorney listed the negotiating parties. She listed Florida Power & Light, Wal-Mart, Vote Solar and SACE. She did not list the Public Counsel's office.

And my point here is just to establish for the record that prior to signing -- and if FPL wants to stipulate to this, we don't have to go through this with the witness who is here to testify in the settlement.

Prior to the settlement being signed, the public counsel was not in any way, shape or form advised of the process that was -- that led to the signed agreement.

CHAIRMAN CLARK: Ms. Moncada, is that something FPL is willing to stipulate?

MS. MONCADA: No, we are not willing to stipulate to that. It is not factual.

MR. REHWINKEL: It is factual.

CHAIRMAN CLARK: I think that's an argument for a different date.

MR. REHWINKEL: Well, Mr. Chairman, if I could

be heard on this --

MS. MONCADA: Can we take five minutes, actually?

CHAIRMAN CLARK: Yes --

MS. MONCADA: Can Mr. Rehwinkel speak to --

CHAIRMAN CLARK: Let's take five --

MS. MONCADA: Okay.

CHAIRMAN CLARK: -- see if you guys can work this one out.

MS. MONCADA: Thank you.

(Brief recess.)

CHAIRMAN CLARK: All right, guys, unless we are going to settle the whole thing, let's roll. If you are really, really close to wrapping it all up, I will give you a few more minutes, but we are on one issue, let's roll.

I have been chair for two hours, and they said I broke the whole system already. I am not sure what they mean by that, Charles --

MR. REHWINKEL: Well --

CHAIRMAN CLARK: -- but I am taking you down with me.

MR. REHWINKEL: -- Mr. Chairman, we had a very, I think, fruitful conversation. Here's what we've, I think, come down on you.

Mr. Valle will be back on the stand. I am going to reserve my right to pursue a line of questions. I am sure FPL would reserve their right to object to my questions.

In the meantime, between now and him coming back, we will look for a amicable resolution that avoids having to put Mr. Valle on the spot on this thing.

Is that -- is that a fair representation?

CHAIRMAN CLARK: Ms. Moncada.

MS. MONCADA: It is a fair representation. And, yes, FPL does reserve its right to object to the line of questioning.

Thank you.

CHAIRMAN CLARK: Understood. Thank you.

MR. REHWINKEL: Okay.

CHAIRMAN CLARK: All right. You may continue, Mr. Rehwinkel.

MR. REHWINKEL: Thank you.

BY MR. REHWINKEL:

Q Thank you, Mr. Valle, for your patience here. Let me see if I can find my place here.

Mr. Valle, can you tell me -- and if you can't for confidentiality reasons or whatever, I understand, but can you tell me if the one named customer on the

settlement agreement is one of the 10 customers who is allocated, or expected to be allocated in the 1,117.5 megawatts in Phase 1 of SolarTogether?

A I want to make sure I understand the question.

The cus -- the customer we talked about, Wal-Mart, who is both represented here and also pre-registered, but your question was are they in the top 10 in the program?

Q Yes.

A I think it's fair to say yes.

Q Okay. Isn't it true that FPL is proposing to build and place into rate base approximately $1.8 billion of solar generation facilities?

A Yes, that's true.

Q And you would agree with me that this is the first large-scale solar generation that FPL is proposing to add to rate base outside of a settlement agreement?

A No, I don't believe that's true.

The 2016 settlement agreement enabled the SoBRA projects, which were we are concluding here in a few months with the 2020 tranche, but we also had projects in 2016, three 75-megawatt projects that were brought into servicing nothing the last rate case.

There were also some historic projects from 2009 under a legislative policy that -- that FPL built

as well.

Q Okay. But the 2016 rate base solar and the 2016 SoBRA solar, they were all emanated from that 2016 settlement agreement, right?

A No. The 2016 settlement agreement enabled the SoBRA projects that we brought in for 2017, 2018, 2019 and 2020. Those were the four 300-megawatt tranches.

The 2016 projects I am referring to were built before we went into the rate case before the settlement agreement was -- was signed from the parties.

Q Okay. But they were approved as a part of the settlement agreement, were they not?

A Yes, that's fair to say.

Q Okay. All right.

A Part of the rate case, the overall.

Q Okay. But since 2016, this is the first time that FPL is seeking to put into rate base a large-scale solar agreement outside of the ambit of a settlement agreement, is that fair?

A That's correct.

Q Okay. Would you also agree with me that this program proposal is the first of its kind in the sense -- in Florida -- in the sense that you are asking one group of FPL customers to explicitly subsidize the benefits that another group of customers receives?

A This is certainly not the first community solar program in Florida. In fact, most of the utilities -- most of the large utilities in Florida have a program already. They vary in different ways in how they go about conveying benefits to customers.

I would agree that our program is different than the programs in the state in that we share benefits explicitly between the participants and the non-participants of the program.

Q So was that essentially a yes with that explanation?

A Yes.

Q Okay. Would you also agree with me that you are proposing for the first time that the Commission determine need on a basis that is different from the traditional reliability base need findings that have accompanied the Commission's approval of previous large base-load generation projects?

A No, I do not agree. We have built solar projects under SoBRA that weren't explicitly tied to a reliability need. In fact, in the SoBRA -- in FPL's SoBRA, there was no direct requirement for need. Some of the other utilities have had to demonstrate that requirement, and have used to economic need.

This is the first time that we are bringing a

project forward that is addressing a specific customer need, though. We do think it meets reliability need, and it also brings economic benefits as well.

Q Okay. So if I asked you the same question but I put the caveat that outside of a settlement agreement, would you agree that FPL is proposing for the first time that the Commission determine need on a basis that is different from the traditional reliability based need findings that has accompanied the Commission's approval of previous large base-load and generation projects?

A I can't claim that I am familiar with all the other utility dockets in the state. One project that would come to mind that does not seem to fit into a settlement agreement would be TECO's recent community solar program, which is a separate tariff related to a fraction of a project that was a SoBRA project originally.

Q A 17-megawatt project?

A Yes.

Q This is a 1,490-megawatt project?

A Yes, that's correct.

Q You would agree that 17 megawatts is not a large base-load generation project?

A 1,490 megawatts is certainly much larger than 17 megawatts.

Q Okay. In this case, FPL is proposing a new concept of need that is more accurately described as a newly identified customer desire or interest, or a want for a product?

A That's true.

Q Okay. Would you also agree with me that FPL is proposing this approach to adding generation resources based on what you discern as a growing customer interest in solar generation?

A Yes.

Q Okay. Is it true that FPL did market research, one-on-one customer meetings and focus groups to find out what customers want?

A Yes, that's true.

Q Okay. And out of your five million customers, do you have a ballpark idea of how many you have identified as being interested in receiving solar generation in the manner that is proposed in this program?

A Well, in megawatts, we are fairly confident that we could fill the entire 1,490 megawatts of the program. And that's based on the pre-registration process and then the interested customers, residential and small business customers to fill the other piece of it.

In terms of count of customers, there is, as I said in my summary, over 100,000 that are interested. I will add that we have not consistently gone out since the filing to make even more customers aware. We have certainly generated some interest in this, but I believe the demand could be, you know, even higher.

Q Okay. But your testimony here is that you haven't quantified that additional demand?

A That's correct. The closest we have is customers that have contacted us since the pre-registration process closed, the large customers, and have indicated interest and a desire to sign up. There is no way for them to do that at the moment, so they would have to participate in -- once the enrollment for the overall program starts.

And then we have, you know, we've taken a look at those 120,000 customers to get a sense for how many megawatts of demand there is there. The one variable we don't know is how many of them will actually sign up for the program.

Q So you just used the 120,000 customers, is that the number of inquiries you have had, is that --

A That represents -- as we have gone out to our customer base and made them aware of this program, those are customers who have signed up for more information.

And once we have their email and we have them on this list, we continue to communicate with them over time.

Q Okay. The customers you have -- well, do the customers you have identified as wanting what the SolarTogether program offers, do these customers generally want you to add solar generation instead of fossil fuel fired generation?

A That's correct. I don't think you will see us bringing a fossil-based fossil together program to the Commission any time soon.

Q Okay.

A We have no interest in that.

Q But they -- they want solar in lieu of any fossil generation, is that -- is that your perception?

A Well, specifically I would say that those customers for their own load. I mean, they are happy that we are doing it for the overall system. They are pleased with the SoBRA program that we have built out. They are happy with the FPL's 30-by-30. But as we heard from Wal-Mart earlier, and many other customers, they want to satisfy their own specific organizational goals.

Q Okay. And your response to these customers desires or wants in the form of SolarTogether program is not the least cost option that is available to you for the same number of megawatt of generation, is it?

A That is correct. It's a -- it's an acceleration of about 600 megawatts from our 10-year site plan.

Q Okay. And would you agree with me that there are customers among your five million who are opposed to nuclear energy?

A Yes.

Q Okay. Does FPL intend to respond to this subset of your customers by closing nuclear plants, even if it is not the least cost or most cost-effective resource decision because it is what customers want?

A No, we do not.

Q Okay. You would agree with me that the solar generation that was added, or will be added as a result of the 2016 settlement agreement, was the product of a comprehensive negotiated settlement with give and take on all sides, would you not?

A Yes, I would agree.

Q You would also agree with me that the 2016 settlement agreement has a provision that was approved along with the entire settlement that says that individual provisions of the agreement may not be used as precedent in a different proceeding?

A Yes, I am aware of that.

Q And you would also agree with me that neither

FPL nor the Commission can rely on the fact that the settlement contained a certain cost-effectiveness standard for large scale solar for consideration in this SolarTogether docket?

A Yes.

Q Okay. Would you also agree with me that the same type of non-reliance prohibition would apply to any test that was contained in any other IOU settlement agreement that had a similar prohibitory provision?

A I am not familiar with the other IOU agreements. If they had a similar provision, I think that's reasonable.

Q Okay. Mr. Valle, isn't it true that FPL has designed this project to serve only about 1.5 percent of the 4.96 million retail customers on your system?

A I would answer it a little bit differently. I would say FPL designed the program based on the demand that we estimated from the pre-registration process, and then from the residential customers.

Q Okay. Would that demand roughly equate to 1.5 percent of your customers?

A I think it's approximately correct.

Q Okay. Isn't it also true that the usage of the expected customers on this first phase of SolarTogether program will help about three percent of

the total retail sales revenue?

A Again, that sounds approximately right.

Q Okay. Isn't it also true that FPL proposes to present this 1,490 megawatts by -- in 20 separate 74 point megawatt blocks?

A That's correct.

Q Okay. Isn't it true that the primary driver for the maximum size of each block of generation is to avoid the 75-megawatt solar generation size limit trigger contained in the Florida Electrical Power Plant Siting Act?

A No, that's only one factor. As we've talked about in some of our SoBRA dockets before, there is a couple of things that we like about that size of project.

We feel -- and I know we stipulated Mr. Brannen, but we feel like we can still achieve scale benefits at 75 megawatts. You know, facilities -- we certainly procure panels when we go out with different projects for multiple sites. We are getting the benefits there, too.

The thing that we also like about 75-megawatt facilities is Florida has a lot of clouds, and we are not in the desert of Nevada. And if we were, then it may not matter where we put an individual large project.

But here, we get a chance to spread out these projects across the state. We have an overall better portfolio. We are susceptible to one weather event, and of course there is also storm risk to that by spreading projects around the state of Florida, that we minimize that as well.

Q Okay. But you concede that -- that avoiding the requirements of the -- can I call it the PPSA? Do you know what I mean?

A Yes.

Q The Power Plant Siting Act.

Avoiding the requirements of the PPSA was a factor in the 74.5 megawatt blocks?

A It is -- yes, it's a factor overall in the decision-making process.

Q Isn't it also true that some of the same individuals who are working on the development and construction of the SolarTogether generation facilities also do the same for sister companies of FPL within the NextEra family around North America?

MS. MONCADA: Mr. Chairman, this goes to the affiliate transaction issue, which has been dropped.

MR. REHWINKEL: No, it does not. It goes to the size of the facility. I will make this clear

in the next question.

CHAIRMAN CLARK: I will allow it.

THE WITNESS: Yes, it's true if you are referring to the engineering procurement construction firms that built some of our sites. There is some large firms that built across the United States, and they do built build for our sister company as well.

BY MR. REHWINKEL:

Q And you have individuals within the NextEra FPL family that -- that work on sites in Florida and around North America?

A Yes, that's true.

Q Okay. And isn't it true that NextEra has publicly disclosed its history of building and its intention to build solar generation facilities in -- in single site generation blocks of greater than 75 megawatts around North America?

A Yes, there are some examples, certainly.

I would just like to point out that as -- as our sister company builds, we are building for other utility customers and basing it on typically their requirements of what they would like to see and following whatever parameters are, you know, in their bid package.

Q It would be fair to say that you have publicly disclosed plans or actual builds in Georgia, fairly near Tallahassee, that are over 75 megawatts; is that right?

A Yes, I believe there are some.

Q Okay. And you wouldn't think that the weather in Quitman, Georgia, or Albany was, from cloud cover standpoint, was signifi-- materially different than Florida, would you?

A I mean, it could be different. There are -- for example, we do see differences between Gulf service territory, now that NextEra overall is an owner, and South Florida versus the west coast being close to the ocean. I think you may not see dramatic differences. But, again, I would point out that in Georgia, we are responding to specific customer request, whereas here, as an integrated utility, we have the ability to shift projects around if we find cost-effective sites.

Q You have one of your sites in the first three -- first two projects is in Baker County up next to the Georgia line, right?

A I think so. Yes.

Q And another one in Putnam County, which isn't that much -- that far south of the Georgia line, right?

A Yes.

Q Okay. Isn't it also true that FPL is

proposing that this phase of SolarTogether is before -- before the Commission today -- let me -- let me start that question over.

Isn't it also true that FPL is proposing that this phase of SolarTogether that is before the Commission today should be resource planning and -- should, for resource planning and reliability purposes, including the 10-year site plan, nevertheless be considered as a single 1,490-megawatt generation resource at the time all 20 blocks of generation go into service by April 1st, 2021?

A Well, I would simply answer that these projects are coming in at different periods of time. I would defer the rest to witness -- or Dr. Sim to explain the resource planning process and how that was taken into account.

Q Well, I guess my question to you is at the time the project is complete, is FPL, if you know, asking the Commission to consider all 1,490 megawatts with the associated capacity factor value as a generation resource for 10-year site plan purposes?

A Well, I will say this -- and I think you have used the word project, just nomenclature. The overall petition, all 1,490 megawatts is under Phase 1. And within that Phase 1, there are five projects. Those

five projects come in at different times.

We are asking, though -- I will agree with you, we are asking for program approval based on the 1,490 megawatts. And the economics are based on the portfolio, the full portfolio of sites.

Q Okay. Fair -- fair correct -- clarification. I meant program when I said project. Thank you.

Isn't it also true that FPL initially proposed that these 20 individual 74.5-megawatt blocks should be bundled together in five groups of generation blocks of greater than 75 megawatts such that financing or carrying costs, known as AFUDC, would be applied to increase the amount of depreciable plant that should be added to rate base?

MS. MONCADA: Mr. Chairman, this question regarding AFUDC is better directed to FPL Witness Scott Bores.

CHAIRMAN CLARK: The witness can answer it.

THE WITNESS: I was going to say the same thing. Any comments on AFUDC, we should direct to Witness Bores.

BY MR. REHWINKEL:

Q Well, let me ask you this, since you -- you are the overall witness on this. You initially bundled 20 74.5-megawatt blocks into five projects, correct?

A Yes.

Q Okay. And the smallest of any of those five blocks is 223-and-a-half megawatts; is that right?

A That's correct.

Q Okay. Is it also true that you have subsequently revised that approach to involve a configuration of only two bundles of 223.5 megawatts with 14 other individual blocks for which you now propose to not include financing costs in rate base for the 14?

A Right. Again, I think -- first, we've stipulated Witness Brannen, who was talking about the change in prices that were coming in from the engineering and construction firms, and why that decision was made. I would also point back to Witness Bores on any discussion determination on AFUDC policy.

I do concur five projects, 223 megawatts is the smallest, but that has not changed through the -- since we filed the program. It has always been five blocks. And that was based on -- what I can talk about is it was based on our ability to execute, as my team is also responsible for the execution of that, execute, get those projects, the land secured, the permits done in time. We could only build them so fast. So from the outset, it had always been that these were going to come

in at different tranches.

Our preference, of course, since we have been talking to customers and were in a pre-registration process in the fall of '18, would be to bring these in as soon as possible so that we would be ready, assuming approval of the program. But instead, we will have to wait for those final tranches for approximately 12 more months.

Q Okay. And I am not trying to get you to talk about the -- the finer points of AFUDC or -- or the construction and EPC process. But in your September 23rd testimony, you presented a revised CPVRR approach that generated some changes to the program that was the tariff before the pending tariff, right?

A That's correct.

Q Okay. And that was partly based on some changes in those 14 projects other than -- blocks, other than projects that those were in projects 1 and 2, is that right?

A That's correct. I, in my rebuttal testimony, talked about updated economics. It was related to two things. One was the AFUDC treatment on the remaining 14 projects -- or excuse me, 14 sites, three projects. And it was also related to the order in which we had run the cost-effectiveness with other resources that were out

there.

I, in my rebuttal, just highlighted the overall economic change. And Dr. Sim has adopted Mr. Enjamio's testimony to kind of explain the mechanics of that.

Q Okay. Yeah, I just was trying to get kind of -- your the high level guy, and I just wanted to understand that something had changed that drove the cost to a different number.

A Yes. That's correct.

Q Okay. Switching gears. In this case, FPL did not issue an RFP for purchase power options to their proposed 20 sites, is that right?

A I believe, if you are talking about for an overall site, no, but as Witness Brannen talked about, we have bid out about 98 percent of the cost of the sites to different module suppliers and EPC firms.

Q Would you agree that FPL's intent in this case for the SolarTogether program, if it is approved, that the prudence of the $1.8 billion in assets is also approved even though there is no need determination for the entire 1,490 megawatts or any individual 74.5-megawatt block?

A I believe that's true. I think that's probably a better question for my counsel on the

specifics of that, but yes.

Q Okay. Is it -- would you agree with me that the payback to non-participants or a general body of ratepayers was 26 years, and that the participant payback is eight years?

A Yes, that's -- that's correct.

Q Okay. Would you agree with me that as far as you are aware, FPL has never sought a preconstruction prudence determination of any generation resource of similar size that is exempt from the Power Plant Siting Act?

A I believe that's true.

Q Okay. Is it also true that if you are allowed to implement this SolarTogether program as filed, or under the pending tariff, and you recover the cost of it through revenue requirements recovery in fuel and base rates, that you intend to implement additional phases of this SolarTogether program and will expect to be authorized to do so based largely upon any approval you receive in his docket?

A No, that's not correct. We are here just on Phase 1 of this program. We don't yet know if we would file a Phase 2. Frankly, that's all very premature. We are very, very -- our team is very focused on getting this right, and obviously this hearing and this process

here.

So we made no determinations on any future phases. And we would expect that future phase would have different economics. You are not have the same pricing. It may not be the same benefits ratio, so we would fully expect to come back to the Commission if we decided to launch Phase 2 and bring Florida a different tariff and different pricing.

Q Well, would you agree with me that you certainly are considering a second phase? I mean, this is called Phase 1, right?

A Other than that fact, no, we are not considering a second phase.

Again, we need to understand -- not only do we need to launch this program. As I mentioned before, we have some customers we think on the C&I side who want to get in that weren't part of the pre-registration process. And then we also have a healthy amount of interested customers, but we haven't tested how many of those customers would sign up, and if we would have a waitlist after this program.

And on the C&I side, the commitment is for them to be entered into the program, enrolled in the program for the first month, and after that, they can make their own determination whether or not they want to

stay. So we need to watch attrition as well in the program to see if it would be -- it would make sense to launch a Phase 2.

Q Okay. So do I understand -- there was a fair amount of discovery about subsequent phases, was there not, that -- that you responded to?

A Is there a specific response you want to point me to?

Q Well, rather than get into that, I just was asking if you had discussions with staff through discovery about subsequent phases?

A I think the answer I gave on subsequent phases, you know, is true. We have not made any determination. We are very focused on -- on this first phase.

Q Okay. Isn't it true that this 1,100 -- that -- that of -- that 75 percent of the capacity of the proposed 1,490 megawatts of the current proposal, or Phase 1, or 1,175 -- 1,117.5 megawatts is reserved for your largest customers?

A Yes. It's reserved for our demand customers.

Q Okay. And isn't it true that of this 1,117.5 megawatts, two-thirds of it, or 50 percent of the overall capacity totaling 752.5 megawatts is reserved for the 10 largest customers?

A Yes, that's correct.

I would just point out that those largest customers, as we heard from Wal-Mart earlier, are national retailers. They are counties. They are school districts that are serving thousands of Floridians as well.

Q Okay. And isn't it also true that the other one-third of this large customer chunk of 1,117.5 megawatts, which is 25 percent of the overall capacity, or 372.5 megawatts, is reserved for 196 other large customers?

A Yes, that's correct.

Q Okay. So -- and the remaining 25 percent of the 1,490 megawatts is set aside for several thousand smaller customers like businesses and individuals?

A Yes. The remaining 25 percent would support up to 75,000 typical residential customers.

Q Okay. So currently, you expect 74,706 customers to participate in SolarTogether Phase 1; is that right?

A Yes, that's approximately right.

Q Okay. And your total retail customer count is 400 -- 4,961,330?

A Yes.

Q Okay. Does this mean that over -- that over

4.95 million of FPL's customers will not be able to participate in Phase 1 of the program?

A That's correct.

Q Okay. Is it true that if 1,490 megawatts were allocated all to residential customers, hypothetically, that you could serve about 300,000 customers that way?

A Yes, that's approximately correct.

Q Okay. You would agree with me that when it comes to your proposed program, that there are participants and non-participants among your customers?

A Yes.

Q Okay. And isn't it true that the participants are guaranteed to receive net bill impact benefits, or a payback, as long as they stay subscribed for more than seven years?

A That's correct, subject to production from the facilities.

Q Okay. And that non-participants may receive indirect net economic benefits after 24 years if the assumptions regarding commodity costs, such as fuel, fossil fuel prices and carbon costs and positions materialize as FPL has projected?

A That's correct. And I would point out that it's -- and I have 26 years, but that it is still better than 2020 SoBRA payback.

Q Okay. Are you generally familiar with Mr. Daphnias' calculation of payback periods?

A Yes, I have read his testimony.

Q Okay. Would you agree that you are using 26 -- are you using 24 or 26?

A 26.

Q Okay. And that's based on 2019 starting point. And if you do 2021, which is when everything is in service, that it's 24-year payback?

A Yes, I see what you are saying.

Q Okay. So if I use 24 or 26, we can agree that they are the same, just the math is based on different starting points?

A Sure.

Q Okay. So is it correct that you will have guaranteed beneficiaries and projected hopeful beneficiaries over the life of the program?

A It's correct that participants' benefits are fixed in the program subject to production from the facilities, and that the general body is expected to receive $112 million of benefits, but that that is subject to fuel emissions.

Q Okay. Would you agree with me that there is $133 million transfer payment made entirely by non-participants to fund the -- excuse me -- the credit

that makes up the guaranteed benefits that the participants receive?

A I believe the number is 137, but we look at that, and we have discussed this leading up to today, that that is an assignment of benefits. It's not a transfer payment assuming one group had its, you know, to another group.

Q Okay. Well, the beneficiaries are also payors, right? So would you agree that the difference between 133 and 137 is the 97 percent that are not participating? I could pursue this with another --

A I understand what you are saying, because the yen he general body includes participants of the program, you are backing out the impacts to the participants, which represent three percent of the energy. I understand what you are saying.

Q Okay.

A We typically, just for simplicity, call it the 137 assigned to the participants and the 112 to the general body, but I understand what you are saying.

Q All right. Thank you.

At some level, could we generally classify these two broad groups as haves, or participants, and the have-nots, which are the non-participants?

A I think I would take offense to the have-nots

and haves. I think they are both haves.

Q But one set of haves is guaranteed and one set of haves is hopeful?

A No. One set of haves is guaranteed, but paying all the costs for the programs. The other set of haves pays no cost and is expected to get those benefits.

Q Okay. So I am going to ask you a question, and I understand based on your answers about a Phase 2 if you would decline to answer it, but I am going to ask it and I want to see what your reaction to is it.

If you build a Phase 2, would you allow the same beneficiaries to get at the front of the line and, once again, be a beneficiary, or would you require them to kind of go to the back of the line and let a new set of non-participants become participants in Phase 2?

Do you understand my question?

A I do. I would -- I would start with we have done no thinking on a Phase 2. We haven't constructed that program.

I, you know -- but as somebody who has, you know, been a part of this overall, I think in terms of the principles I talked about on in my summary, if we were to create that, we would, I think -- at least my view is, we would not allow participants to go twice,

right? I mean, one of the -- one of the rules in this program is you can't subscribe to more than 100 percent of your energy. So you couldn't join another program and subscribe to another 100 percent of the same energy, right?

Q Okay. So is it possible that if you did a Phase 2, or some other version, understanding that the economics and the design of the program might shift, is it possible that today's participants might be tomorrow's non-participants?

A Yes.

Q Okay. I have one specific question to ask you, Mr. Valle, about your second set of testimony, your September 23rd testimony.

A Okay.

Q And if I could get you to turn to page 14.

A Okay.

Q On line six, do you see the word "needs"?

A Yes.

Q Okay. You would read aloud the sentence that contains that word, that starts on line five?

A Right. So this is a question responding to Vote Solar Witness Cox concerning FPL's right to reallocate could prevent any participation by any customer group.

So the answer, starting at line five is: "The reason for FPL to have the ability to reallocate is that it provides operational flexibility to meet customer needs that could vary over the life of the program."

Q Okay. Tell me what your definition of needs is in the context of that answer.

A Here, what we are talking about is if we were reserving the right that if -- let's say our large customers decided to leave the program at some point, that we could rebalance and shift some of that capacity to residential customers who are interested in joining the program.

Q Okay. So would needs there have the connotation of desire or interest as opposed to a reliability need?

A I think that's correct. I am not using it as a reliability need. It's a customer demand to participate in this program.

Q Okay. All right. And just one last question.

We talked about the 24 or 26 year payback. Would you agree that -- and I think you agreed that the payback, if it's going to materialize, is going to be dependent upon the accuracy of the cost projections -- or the cost savings projections that went into the CPVRR analysis that you are presenting to the Commission, is

that fair?

A That's true with one caveat I should have mentioned earlier, and that is of the 112 million of benefits, 56 million of the -- and this is to the general body -- 56 million is derived from the participants paying the 104.5 percent of the cost.

So 56 million of the general body's benefits are guaranteed. The other 56 million, as we were discussing, is subject to fuel and emissions.

Q Okay. So regardless, we talked about a billion eight that would be part of rate base if this -- if this program was approved, right?

A Yes.

Q For the entire duration of the project, and while we were looking to see if those other, to use your math, the other half of this 112 million was -- benefits were going to materialize, FPL shareholders would be earning a return on that investment for the entire duration; is that right?

A That's correct. It's -- and Witness Bores, you know, can talk more about this, but this is not different than any other rate base capital that FPL would invest in.

Q Those are all the questions I have on this round. Thank you.

A Thank you.

CHAIRMAN CLARK: Thank you, Mr. Rehwinkel.

Ms. Putnal.

MS. PUTNAL: No questions. Thank you.

CHAIRMAN CLARK: You caught me off guard.

All right. I take it -- do any of our other -- anybody else have any questions on this side?

All right. Then --

MR. TRIERWEILER: Staff has questions.

CHAIRMAN CLARK: We will move to staff. You are next, staff.

MR. TRIERWEILER: Let's go ahead and get that.

Chairman, we have two exhibits, two composite exhibits and a small pack of interrogatory responses that we need to distribute.

We will be -- we will ask you to mark the first two exhibits once they are distributed to you. The first is a pie chart, and then the second is four flowcharts. And I would respectfully suggest that those would be marked as Exhibits 63 and 64, please.

CHAIRMAN CLARK: Okay. Mark them as such.

(Whereupon, Exhibit Nos. 63 & 64 were marked for identification.)

MR. TRIERWEILER: And the second packet, let's go ahead and mark that as 65, even though all of the interrogatory responses have been -- previously been admitted on the staff's comprehensive exhibit list, and the references are listed there on the front page of those staff interrogatories.

CHAIRMAN CLARK: We still don't have those. The first two --

MR. TRIERWEILER: No, the second one, the flowchart.

CHAIRMAN CLARK: The first exhibit is --

MR. TRIERWEILER: The pie chart.

CHAIRMAN CLARK: The pie chart is Exhibit No. 63.

The second document they handed us, which are the bar charts, is marked as Exhibit 64.

MR. TRIERWEILER: I am sorry. They are on their way to you.

CHAIRMAN CLARK: This will be marked Exhibit 65.

(Whereupon, Exhibit No. 65 was marked for identification.)

MR. TRIERWEILER: Thank you.

CHAIRMAN CLARK: Mr. Trierweiler.

CROSS EXAMINATION

BY MR. TRIERWEILER:

Q Mr. Valle, do you have those 63, 64 and 65 there in front of you?

A I do.

Q Terrific.

Mr. Valle, SolarTogether, in its current version, as presented on October 9th has three component parts, that would be the facilities, the tariff and the program; is that correct?

A That's correct.

Q How has the tariff changed between April 18th, when we embarked on this journey, and October 9th, 2019?

A As originally filed, the benefits of the program were less. They were 139 million. 111 million of that was set aside for the participants, 28 million for the general body.

As we just discussed with Mr. Rehwinkel, as a result of changes in resource planning and AFUDC, those benefits improved by the October filing to 249,000,137 set aside for participants, and 112 for the general body.

Associated with those -- and I can review -- pricing also changed, you know, to -- for both of those -- excuse me, for the participants of the program.

Q So what specifically changed in the filing in

the supplemental tariff, please?

A In the supplemental tariff that -- that was filed, we had updated the low -- as a result of the settlement agreement, the low income program, which kept -- excuse me, kept the balance -- skipped the 55/45 split between participants and non-participants; modified slightly the pricing for participants, and introduced 37 megawatts for low income with a separate pricing structure.

Q And then the changes to the subsequent settlement agreement tariff, which is our current tariff, that's being proposed?

A Well, the settlement agreement and the changes in pricing associated with that are the pending tariff that we are discussing today.

Q I would like to direct you to your direct testimony. On page six, lines two to five of your direct testimony, you state: "FPL is proposing this innovative new program to meet the substantial demand from customers who are seeking expanded access to solar energy, including those who do not wish to or cannot install their own solar system through Net Metering;" is that correct?

A I am sorry, can you give me the reference again?

Q Yeah.

A I am on page six, line five.

Q Page six, lines two to five.

A Yes. Okay, two to five, sorry.

And the question again?

Q That FPL is proposing this innovative new program to meet substantial demand from customers who are seeking expanded access to solar energy, including those who do not wish to or cannot install their own solar system through Net Metering, is that correct?

A Yes.

Q Now, Net Metering is a behind-the-meter customer lease or owned facility?

A Yes.

Q On page 12, lines five through six, you state: "Although their reasons for being interested in community solar varied, a top driver was electric bill savings." Is that accurate?

A Yes.

Q So would it be fair to say that the SolarTogether program is a response to customer demands as an alternative to Net Metering that provides bill savings?

A Not entirely. I know those statements we read are true. But I think the more full context is electric

bill savings are important, but so is meeting sustainability environmental goals. I think those two, when we talked about the large customers and then residential/small business customers, those two are really what separates the program.

The other thing I would say in relation to Net Metering, we view this as complimentary to Net Metering. You can still be a net metered customer and sign up for SolarTogether for the remaining amount of energy. It certainly remains a viable option for customers who want to do it. SolarTogether is intended to be an alternative for some, but then for others, it's their only way if they can't net meter.

Q Thank you.

FPL conducted a pre-registration period in which approximately 206 commercial and industrial companies signed up for the 1,107.5 megawatts of program capacity, is that correct?

A Yes.

Q On page 18, lines four through five you stated that any C&I customer -- that's commercial/industrial customer -- who did not pre-register would be eligible to enroll once the web-based enrollment platform is available to residential customers; is that correct?

A Yes. One correction to that statement, that

enrollment is for all customers. So we did a pre-registration just for the large customers. When the enrollment happens, that will be for all customers to sign up.

Q Now, is that -- is that registration of the remaining 25 percent, is that limited initially to residential and small commercial?

A That's correct. The divining line is demand or non-demand, but that's 20 kW of peak capacity. So effectively, that means small commercial and residential customers.

Q And then once they have an opportunity to have signed up, you -- FPL may backfill any remaining capacity with other, and open that up to other customers?

A That's correct. We think that's unlikely, and we haven't specified the timeframe, but we reserve the right to do that just so that the program would be fully subscribed, if we had interested large customers who are unable to get in.

Q Does the SolarTogether rider provide a preference to customers who cannot access rooftop solar?

A It does not.

Q If the solar facilities were constructed and recovered through traditional rate-making, would all

customers receive benefits of additional solar generation, including those who cannot access rooftop solar?

A That's correct.

Q SolarTogether provides an option to those who want, but either can't access rooftop solar or choose not to?

A Yes, that's correct.

Q Mr. Valle, now I would like to briefly explore your rebuttal testimony.

A Okay.

Q On page seven of your rebuttal testimony, you admit that the SolarTogether program is a departure from traditional cost recovery for utility generation?

A I am sorry, can you point to the line on page seven again?

Q I don't have it in front of me right now. Beginning with, "yes, Witness Hinton", on line 19. That would be page seven, line 19, your response, "yes, Witness Hinton is correct", as a response to the question on line 16.

A Yes, I am there.

Q Okay. So is yes my answer, I mean, to my question?

A Yes.

Q Do you agree Florida utilities plan investments as part of a coordinated grid?

A I would agree that FPL plans for its system investments as part of a coordinated system. We do take into account the other utilities in the state of Florida and adjacent in Georgia, but predominantly it's our own system.

Q Would you agree that the costs for electric generation facilities are approved by the Commission for IOUs pursuant to Chapter 366 Florida Statutes?

A Yes.

Q Would you agree that a need determination, pursuant to 403.519 Florida Statutes, is basically an advanced prudence review for construction of certain types of facilities?

A Yes.

Q Commission Rule 25-22.082(1) states that the use of a request for proposal, or RFP process, is an appropriate means to ensure that a public utility selection of a proposed generation addition is the most cost-effective alternative available.

Are you familiar with that Commission rule?

A Not in detail generally.

Q FPL has not issued an RFP for the purchase power options to the of proposed 22 centers, is that

correct?

A For the 20 centers, yes.

Q I mean, sorry, the 20 centers. Thank you for the correction.

At this time, I would like to direct your attention to FPL's interrogatory responses.

MR. TRIERWEILER: Commission, I have provided an interrogatory packet marked for identification as Exhibit 65 for the witness to refer to if required.

BY MR. TRIERWEILER:

Q Mr. Valle, in response to staff's ROG 139, which is Exhibit 38 on staff's previously admitted CEL, FPL states that approval of FPL's petition would result in approval of construction of that capacity at that projected cost; is that correct?

A Yes.

Q Thus, FPL's decision to build and operate the 1,490 megawatts of capacity would not be subject to a subsequent prudence review so long as FPL's actual costs do not exceed the projected amount; is that correct?

A Yes.

Q Does this proposed treatment resemble that of a generating unit that has gone through a need determination process?

A Yes.

Q Okay. And FPL has requested an advanced prudence review without a need determination for this program, is that correct?

A I think you -- you are kind of at the edge of my comfort zone in terms of the specifics of -- of the statutes, but I think generally that's correct. We are presenting, though, a need here, and talking about the customer need for this program. And you are also right in asking for a prudence determination assuming we come in at these costs.

Q Thank you.

Let me direct you to staff's Interrogatory No. 241, which is Exhibit 47 on staff's CEL.

FPL agreed that the SolarTogether program is not a least cost plan, but rather a means to accelerate the construction of approximately 600 megawatts of solar facilities previously identified on the 2019 10-year site plan, and to respond to customer demand for additional access to solar generation. Would you agree with that?

A That's correct. It represents 600 megawatts of acceleration.

Q Has FPL provided an economic analysis of this acceleration?

A We have not.

Q All right. Now I would like to direct your attention to the pie chart, Exhibit 63 for identification.

A Okay.

Q I am going to skip some of my questions as they were addressed by OPC, and I would like to direct your attention to the low income carve-out.

Would you agree the low income carve-out of 37.5 megawatts represents approximately three percent of the program total?

A That's correct.

Q Do you agree that assuming five kilowatts per customer, would the low income carve-out equate to approximately 7,500 low income customers?

A Yes.

Q Now, the low income plan won't be open to low income participants until project No. 3, is that correct?

A That's correct. And the first billing for that would be in February of 2021.

Q Thank you.

Would you agree that FPL currently serves more than 7,500 low income customers?

A Yes, that's correct.

Q All right. Now I would like to refer you back to the interrogatories, and specifically staff Interrogatory No. 254, which is Exhibit 50 on staff's CEL.

A Okay.

Q This chart shows a CPVRR savings without the effect of the proposed charges and credits to participants, is that correct?

A That's correct.

Q It also has removed the administrative cross -- costs, sorry, of approximately $11 million associated with the SolarTogether program?

A That's right. In the mid/mid scenario here, it's 260 million of benefit. And you are correct, when you take 11 million of administrative costs out of that, you are to the 249 million in benefits I referred to earlier.

Q And for that mid fuel/mid CO2 row, this comparison shows that the SolarTogether plan is more cost-effective than the no SolarTogether plan by 260 million, with a payback period of 21 years?

A Yes.

Q All right. Now I would like to direct your attention to exhibit that's been previously marked as 64. They contain four flowchart diagrams.

A Okay.

Q And the references are interrogatory responses No. 62 and 125, which are part of staff's CEL Exhibit 38, responses 183, 190 and 237, which are part of Exhibit 39 to staff's CEL in response 254, which is part of Exhibit 50 on staff's CEL.

The purpose of the four flowcharts focus on summarizing the cost-effectiveness results. Let's begin with the first page of the exhibit, which is the Pre-Tariff Solar Facility Savings With Carbon, mid fuel/mid CO2 before administrative costs. Do you agree that the net savings are depicted as $260 million?

A That's correct. And this is the scenario that the program is based on.

Q Thank you.

Do you agree that the customer count is 4,961,330?

A Yes.

Q And you agree that the payback period is 21 years?

A Yes.

Q Okay. Please turn the page to the next flowchart, which is the Post-Tariff SolarTogether Savings With Carbon, mid fuel/mid CO2.

You would agree with the $250 million solar

facilities net savings minus the $11 million of program administrative cost that results in $240 million of net system savings?

A Yes.

Q Of this $249 million, 137 would flow directly to participants, is that --

A Yes.

Q And $112 million would go to the general body of ratepayers, which also includes participants?

A That's correct.

Q And that saving allocation would be 55 percent to participants?

A Yes.

Q That would be 74,706 participants and 4,961,330 customers, give or take a few, in the general body of ratepayers?

A Yes, that's correct.

Q And you would agree that the participants would make up only 1.5 percent of this customer count?

A That's correct.

Q Under these criteria, the payback period for participants is eight years; is that correct?

A Yes.

Q And payback to the general body of ratepayers is 26?

A Yes.

Q Okay. Let's move to the next flowchart, which is the Pre-Tariff Solar Facility Savings Without Carbon, mid fuel/low CO2. Are you on that chart?

A Yes.

Q Okay. Under the mid fuel/low CO2 criteria, net system savings drops to $170 million?

A That's correct. This is one of the nine scenarios we presented.

Q And the payback period becomes 23 years?

A Yes.

Q All right. Now, let's -- please turn to the final flowchart, which depicts the Post-Tariff Savings Without Carbon, mid fuel/low CO2.

A Okay.

Q Under these criteria, net system savings are only $159 million?

A Yes, after admin costs.

Q Of which 86 percent of the savings would be allocated to the participants, or $137 million?

A Yes. That number doesn't change.

Q And only 14 percent of the savings would be allocated to the general body of ratepayers, or $22 million?

A Yes, that's true. It's also showing that it's

still cost-effective for the general body.

Q Okay. Now, the payback period to participants remains unchanged at eight years --

A Yes.

Q -- is that correct?

A That is correct.

Q All right. However, the payback period for the general body of ratepayers would now be 30 years?

A Yes, for these specific assets.

Q Thank you.

All right. Let's return to Exhibit 65, and I would like to direct your attention to FPL's response to staff's Interrogatory 209, which is in Exhibit 42 of staff's CEL.

A Okay.

Q Which amount is FPL proposing to include in rate base for surveillance purposes?

A The -- I believe it's the 1.8039 billion.

Q Okay.

A The total rate base for the program.

Q Thank you.

And that's what's going to go into rate base --

A Yes.

Q -- is that correct?

A Yes.

Q And not the 1.259 billion number, that it --

A I believe that is correct. I think Mr. Bores can probably elaborate on that.

Q Thank you.

All right. Now please turn the page and refer to FPL's responses to staff's Interrogatory 234(a), which is Exhibit 46 on staff's CEL.

A Okay.

Q The total cost to participants is $6.44 per kilowatt per month, is that correct?

A I am sorry, could you repeat the question? I found the number on the page here.

Q Okay. The cost to participants is $6.44 per kilowatt per month?

A Yes, that's correct.

Q In order to pay 100 percent of the program costs, that would require participants to pay $9.23 per kilowatts her month; would you agree with that?

A I would, but I -- I think I should point out the system impacts when the base benefits the capacity deferral that are part of this program is what is getting that number from the 9.23 down to the 6.44. And the 6.44 moves up to the 6.73 when we ask the participants of the program to pay 104.5 percent net

cost of the program.

So you are correct in terms of it's 9.23, but the base benefits are taken out of the cost of the program and, therefore, the participants are paying the net cost after the base benefits have been taken into account in the program, those fixed benefits.

Q Thank you.

All right. Happily we can put those exhibits away. And next we would like to focus on the risk comparison to Net Metering.

What risk does a traditional Net Metering customer bear?

A A net metered customer bears a variety of risks. The first is after they make the decision whether or not that the installer comes in, you know, on budget, or if there are any other complications due to roof or other issues. Net meter customer has a risk of associated ongoing maintenance and potential storm damage.

The net meter customer has some risk for production, and these can vary depending on how you have contracted, right? And I am kind of going down the path if you purchased a system with cash, but there are products out there for leasing, which would tie some of these risks up.

And then of course production, and then your amount of load. And another variable is the amounts of excess energy you generate, and what the expected utility rate in the future would be to compensate you for that energy.

Q I thank you for that answer. Let me see if I have captured all of the data I was trying to.

That Net Metering customer bears that upfront capital or lease payment cost, correct?

A Yes.

Q And you mentioned maintenance. That would be roof maintenance, facility maintenance --

A Facility maintenance, inverter maintenance if there's any issues with the panels over time.

Q Net Metering customer would bear that -- that -- you discuss that savings variable based upon the output of facility and the cost to retail electricity. How is that -- how is that a risk for the Net Metering customer?

A Well, when we've taken a look at net metered proposals for residential customers, there is always a number in there which represents the expected utility bill in the future. And often those are -- I mean, we have forecasts going out a few years at the utilities, but often those are represented as dramatically going up

over time above and beyond what utilities are forecasting.

So I call it a risk in that it's part of the financial model to get to the payback that a customer is signing up for, and they may not know where and how to validate that -- that number.

Q Obviously, the lack of portability, that's obviously a risk that they bear?

A Yes, that's true. You can make the investment and then move to a different location.

Q I was just struck by the fact that as a Panhandle person, I remember people jacking up homes and moving them from this place to that place, some of the old -- especially the old white structures. They even did that for the FSU Law School. But I can't imagine what would be involved in jacking up a house that has solar panels and everything else that goes with it, so --

A I think it would be more cost-effective to just buy a new system at a new house.

Q Liability insurance requirements would be -- would be a risk, is that correct?

A Your homeowners insurance may be a little bit higher because the value of your home is a little higher.

Q And the 10- to 12-year payback, is that -- you think that's a risk that the Net Metering customer bears?

A Yes. I mean, all the variables sum up to a payback period. We use that because -- we've used that in this petition because that's what we believe kind of the market is right now, at least in FPL's territory, recognize there is a huge spread when we look at the data for residential installers, so -- and there is different ways to finance. Just like you can finish a car in many different ways. There is different ways to finance rooftop solutions too, which would change your payback and your risks.

Q Does a SolarTogether program effectively mitigate some or all of these risks for participants?

A Yes. The SolarTogether program was designed to, for example, be flexible so you could move anywhere in the territory and stay on the program. You may have to adjust your -- your load if that changed.

Of course, we think one of the benefits for customers is they maybe don't have to deal with a rooftop system. Even if they could install it, they don't have to deal with that, and the ongoing maintenance of that system, FPL will take care of that.

And then I think also a bit more known in

terms of the -- the payment stream and the cost stream, right? I think that's one of the critical parts of our program that we have given a little bit of certainty to customers.

Q Thank you.

FPL's compared the SolarTogether program to the current Net Metering program. A Net Metering customer would see an increase in cost due to the purchase or lease of a solar facility. How does -- how does this program mitigate against those kind of risks?

A I am sorry, the -- you are talking about the upfront?

Q Right. The upfront -- the upfront costs?

A Oh, sorry. So there is no upfront cost in the SolarTogether program to get in. You begin paying a premium in the first month that you are in the program, but you don't have a large upfront cost, and you also don't have any additional fees in the program, sign-up fees, administrative fees, anything like that.

Q Okay. Would participation in the SolarTogether program be similar in effect to a customer who installs an efficient unit -- AC unit or water heater, I mean, as far as the -- as far as the -- no, let me scratch that question. I think you have already addressed that.

Net Metering. Net Metering would be similar to a customer who installs an efficient AC unit or a water heater, would you agree with that?

A I suppose in some ways. I mean, if you are installing an efficient water heater, you are cutting your energy usage. A net metered system doesn't cut your energy usage. You just generate it on-site and avoid having to buy it from a utility.

Q Under both scenarios, both a net metering or a conservation scenario, non-participating customers would see no change in their bills, while FPL would see a decrease in revenue and a downward pressure on earnings; is that accurate?

A That's correct.

Q So until a rate case, this lost revenue would not have been passed along to non-participating customers in either one of those two scenarios?

A That's correct.

Q Under the SolarTogether program, non-participants would see an immediate bill increase as a result of the credits being recovered through the fuel clause; is that correct?

A That's correct, in the early years.

Q All right. Now I would like to focus on the benefits and risk to those all involved in the

SolarTogether program and the impacts. Let's start with the utility.

FPL would see benefits in increased fuel diversity due to an acceleration in solar, is that correct?

A Yes.

Q FPL would see a benefit in a fixed payment stream of dollars per kilowatts per month, like a customer charge, versus the cents per kilowatt hour?

A I don't see that as a benefit. From FPL's standpoint, it's a rate-based capital investment, and the revenue requirements are being recovered both by the participants in the program and the general body.

Q Another benefit FPL would receive under the program would be recovery outside of a rate case. In other words, FPL wouldn't have to wait for a rate case in order to recover; is that correct?

A I believe it's correct. But, again, I think Witness Bores is probably better to talk about the mechanics of how that works before and after a rate case.

Q Okay. Would FPL benefit from the pre-approval of capacity additions?

A I think to the extent -- I will answer it this way. I think that to the extent it enables FPL to both

continue to advance solar energy, meet the reliability need that's identified in the 10-year site plan, and serve this customer need that we see out there, then yes.

Q Thank you.

FPL has an aspirational goal that we all know as 30-by-30, which is FPL's plan to install 30 million more solar panels across Florida by 2030. And that plan was to result in approximately 11,000 megawatts of installed solar capacity by 2030. Would SolarTogether also further FPL's aspirational goal?

A Yes. The solar facilities, as FPL has talked about in the 30-by-30 plan, would count toward the total number of installed megawatts on the system.

It's actually helpful that you pointed out the 30-by-30 plan, because if you think about our customers who are in SolarTogether and what they are looking for, they are looking for 100 percent renewables. 30-by-30 is 30 million solar panels, or as you said, 11 gigawatts of solar by 2030. That moves FPL's system to about 22 percent solar, right?

So it gives you a sense for how long it would take to move the overall system to a, you know, to a position where we could satisfy a lot of these customers' interest. It would take multiple decades to

get there.

Q Thank you. I appreciate the expanded response.

What about the ability to meet customer demands or needs, is there a benefit to FPL in being able to do that through SolarTogether?

A Absolutely. Yes. I think that's a key point of the program, and a theme that I think we keep coming back to that not serving this interest from customers, not serving this demand ultimately will result in those customers not only being frustrated that they can't achieve their goals, but them trying to seek out other means to -- to meet those goals. And some of them may turn to Net Metering, right, which has an -- which we believe has an inherent subsidy in it. Others would seek different mechanisms within the state.

And I also think it's a competitiveness issue for economic development in the state of Florida if we are not able to offer choices like that to new businesses that want to relocate here.

Q Thank you.

Now I would like to switch our attention to the benefits to the participants. Once again, participants would benefit from increased fuel diversity due to the acceleration of solar?

A Yes, to the extent those participants are part of the general body, yes, I would say that fuel diversity is good overall.

Q A participant would expect less upfront costs than a net metering option?

A Yes, generally true. You can lease systems, and that would reduce your upfront expense, but I think generally that's true. It would be lower than a lease payment you would make.

Q In general, the payback period would certainly be far superior to most net metering arrangements that you are familiar with?

A I am not sure if I would say far superior. Again, 10 to 12 years is kind of what we are looking at today. Let's just remember that Net Metering is -- the paybacks are coming down over time as the cost of solar is coming down over time. So as we designed the SolarTogether program, we wanted it to be competitive today, but into the future.

Q So a participant looks at an eight-year payback versus the 10 to 12 and sees an obvious advantage there?

A Yes, assuming that they could have net metered the system and that it would, you know, work for them.

Q And there would be no upfront costs for low

income participants in the program under the -- under the specific -- in the special program directed at low income participants?

A Yes, that's correct. Low income can obviously sign up for the non-low-income reserve part of the program, too. But you are correct, we have designed that in a way such that there is no upfront day one premium for the program if you are a low income.

Q Of course, that's those that fit within the program, FPL envisions that there is going to be low income participants who don't get the opportunity to participate in the prescribed amount that's in the settlement agreement?

A Yes, that could be true.

Q Another benefit to participants would be the ability to claim up to 100 percent renewable usage?

A Yes.

Q Okay. And there is an additional benefit to be able to determine what percentage of renewable usage they want to participate at, would that be a difference?

A I am not sure if that's different from a net metered alternative, where they could select the size of the system. But you are correct, the customers would select their participation level by kilowatts blocks.

Q Participants also have the known payback

period that we discussed?

A Yes, subject to production.

Q And obviously, there is a benefit for portability within the service area. Any customer who moves within the service area could move and take their participation credits with them?

A Yes, that's true. And that includes business customers as well.

Q Finally, let's take a quick look at the benefits to the general body of ratepayers. Obviously, the first benefit would be increased fuel diversity due to acceleration of solar?

A Yes.

Q And the second would be reduced future fixed cost responsibility, at least as far as the non-participants are concerned?

A Yes, in that these facilities displace future facilities.

Q How would the revenues that you collect from the participants offset the financial burden that the non-participants would have to shoulder under the program? I guess it's a -- if you want, I could rephrase it.

A Yeah, maybe.

Q Obviously, the non-participants are paying a

charge in order to participate with the program, and that -- and that amount is entirely shouldered by the participants, as far as the charge?

A Well, the general body is paying none of the cost over the life of the program. It is true that in some of the early years, the differential and the revenue requirements are paid for by the general body. But, again, over the life of the program, they are not paying any cost for the program, and they are getting $112 million of benefits from the program.

So they are contributing in the early years to help levelize the cost and establish the benefit rates, and then in the back-end years, as fuel and emissions go up, they are going to be accruing more of the benefits. So they are net to the positive. They've earned benefits by the end of the program.

Q I would like to direct you back to Interrogatory 20 -- 209, and just the part where it talks about the program costs.

The total program costs that are going into rate base are, you know, 1.8 billion; however, your subscription revenues from the participants is 1.315 billion. So this would be the amount that's being paid by the participant subscribers, is that correct?

A Yes, that's correct.

Q Okay. Now I would like to switch your attention to discussing possible alternatives to the program and within the program.

Based on the purposes of the program, do you believe the Commission can consider approval of the proposed solar facilities separate from the proposed tariff?

A I agree that the Commission has the ability to do that, but to clarify, we are putting these facilities forward as a part of this tariff in this program.

Q Are you willing to specify or describe which projects FPL would be asking the Commission to preapprove at this time if the tariff is not approved?

A No. Again, we are not asking the Commission to preapprove any facilities in this docket if the tariff is not approved.

Q Now I would like to explore the potential benefits of approving just the facilities with the following caveats.

Would you agree that if the Commission were to make a determination that all or part of the proposed 1,490 megawatts of solar generation was cost-effective and in the public interest, that that would encourage development of solar generation in the state?

A No. I think it would be sending a confusing

mixed message to the state and beyond.

There is this undeniable customer need that we are looking at, and it is growing over time and it is not going to go away. And to end up not approving this tariff, or leaving any other pathway for to serve that need, I think there would be a lot of dissatisfied customers.

Again, we heard already today from Wal-Mart, but we have talked to many other customers out there that want to be 100 percent renewable. And if these facilities became rate-based facilities for the general body that moves the overall fuel mix at FPL from two or three percent to four or five percent, or something like that, and that is not what these customers are looking for.

Again, they are happy that we are continuing on the path and investing in solar, but they are looking for something else. They are looking to make a significant impact, you know, in their environmental sustainability goals, and they are also looking for a bill impact because they are comparing to other alternatives in other markets.

Q Wouldn't this provide a substantial assurance that FPL could recover these costs in a future rate proceeding?

A And sorry, the prior statement of the question, that's if the Commission approves these as rate-based facilities here --

Q Correct.

A -- in this docket, would that help --

Q Correct.

A -- in the future? Yes.

Q Would you agree that if the Commission approved a cost cap for the proposed solar facilities, that this would encourage the development of solar generation in the state?

A I do not think a cost cap in, you know, in terms of this program would be helpful. I think, as we've talked about in our testimony, the pricing components for the program are already set in the tariff, right. So if we applied a cost cap to the facilities, that doesn't change the fact that we've already effectively permitted all of these facilities and understand the costs where they would come in. So I don't think a cost cap within this program in this phase would be helpful.

Q Wouldn't this provide a substantial assurance that FPL could recover these costs in a future rate proceeding and protect the general body of ratepayers from an unknown cost overrun?

A I think I better understand what you were getting at in your last question.

Potentially it could. I think the difference here versus when we were talking about SoBRA in the settlement is that these 20 projects -- excuse me, these 20 sites are identified. Most of them are permitted. Most of them have been laid out. Six of them are already nearing completion in construction. As Witness Brannen talked about, the EPCs and the modules have been identified should we proceed with the next three projects.

So I think we have very good line of sight to the -- to what the final cost of these projects are. And I would also add that our track record over many years is to come in under budget on these facilities, which we have done for most of the SoBRA facilities we built.

Q Would you agree that if the Commission were to classify all or a portion of the proposed solar facilities in your 20 centers as a regulatory asset, that this would encourage a development of solar generation in the state?

A I would defer to Witness Bores for that answer.

Q Here is your SoBRA question: Would you agree

that if the Commission were to authorize the recovery of the proposed solar facilities through a SoBRA type charge, such action would encourage a development of solar generation in the state?

A And as a clarification to your question, is that a Commission action assuming the tariff is not approved and, instead, we would move forward with the SoBRA-like mechanism?

Q That's correct.

A To that point, I would say again, no. That is not meeting the customer need that we are seeing in the market.

I do think it is a fair point to not only look at the customer needs that we are trying to serve with this program, but also think about are we still building solar for the rest of the general body, which our customers want us -- the gen-- the non-participants in the program, as we have talked to them over the last few years, they have been very happy with the SoBRA facilities, and I would think they would want us to continue to invest in solar for the overall system as well.

Q Do you think that such an action would result in a future rule-making proceeding to address all IOUs?

A It could.

Q This would provide a cost recovery mechanism by rule, wouldn't it?

A Yes, if that was the outcome, yes.

Q Would you agree that if the Commission approved the solar facilities as we discussed, but did not approve the proposed tariff, that customers could still choose to net meter or achieve their greenhouse gas and sustainability goals through some other means?

A No. A -- potentially a small subsection of them could. I think about some of the largest customers that were in our pre-registered group, they simply don't have enough roofs or space to achieve the significant amount of load or energy that they buy currently from FPL.

Think about counties with hundreds of buildings, let alone their willingness to undertake building that many different systems that are not at scale. And then of course there is plenty of customers that don't own the roof, businesses that don't own the roofs that couldn't do this either.

So I think for a subset of customers potentially, but that option is there today. And what they have indicated to us is they want to participate in the program, so they have already taken, you know, that step.

Q So these options that would be open to customers would be to install self-service renewable generation, purchase renewable generation, purchase RECs, or some combination of those options, is that what's available to them today?

A What's available today is net metered systems and different ways to finance them. There are REC programs out there, but as we've talked to customers, that is -- that's not something that most of them are interested in anymore. I think those represent facilities that are already generating renewable energy credits as opposed to what this program brings, which is new facilities, which are making a dent on the system. In other words, we are burning less fossil fuels because of these new facilities.

So I am not sure if the RECs would address many of their concerns. For larger sophisticated customers, and, you know, Wal-Mart is one, you could attempt to offset your energy use in other states. We think that is unfortunate, because a lot of customers want to offset their energy in this state, bringing the economic benefits of developing these projects, the property taxes to this state. But that's certainly, you know, for some of them, they could attempt to do it in other states.

Q For a large municipal customer who set a goal of 100 percent renewable, do you know whether or not they may or may not have the roof space to set this goal? Do you know whether or not that's been an issue as to whether or not they wanted to participate in the SolarTogether program?

A It is. As we've talked to customers, they have indicated -- many of them have indicated they don't have the desire to own that many different systems, and they don't have enough roof space. And I can think of some counties in particular who have looked and done inventories of all their roofs, and identified only a small percentage of them that they think are even suitable for solar.

The other thing to remember is putting solar on a roof is more expensive than putting 400 acres of solar in a field. So the costs we are able to achieve are far lower than what they would be able to do on their own if they put facilities on their roof. And that goes for maintenance costs as well. Not just the install capital costs.

Q Thank you.

Would you agree that if the Commission does approve facilities and the tariff, but includes the recovery of credits as a base rate expense,

participating customers would be unaffected?

A Can you repeat that for me?

Q Sure.

Would you agree that if the Commission does approve the facilities and the tariff, but includes the recovery of credits as a base rate expense, participating customers would be unaffected?

A I understand the question. I think it's better directed at Witness Bores for the mechanics on that.

Q Okay. Would you agree that FPL would bear the risk of the SolarTogether credit expense until its next REC case, or is this also Witness Bores?

A Yes. Thank you. I was going to say Witness Bores is better.

Q Okay.

MR. TRIERWEILER: Thank you. I have no further questions at this time.

CHAIRMAN CLARK: All right. Commissioners, it's your turn.

Commissioner Brown.

COMMISSIONER BROWN: Thank you. And thank you to our staff for asking a multitude of questions that I thought were -- covered a lot of material here.

But I just want to follow up to one of the questions that Mr. Trierweiler asked. He was talking to you about risks and benefits of the different programs that you stated kind of complement each other; the Net Metering program, the SolarNow and the FPL SolarTogether program, and how they all kind of -- the different benefits.

And then I don't know if he actually got into the system-wide benefits. I mean, he talked about -- I guess you addressed FPL SolarTogether. I am just trying to see how the system-wide benefits of those three different programs vary, if at all.

THE WITNESS: Sure. I can take kind of a high level, and then dive deeper. So I will start with Net Metering.

Net Metering is providing, obviously, just customer sided benefits in terms of not buying energy from customers. So the way that we see it is, you know, from the utility standpoint, two things.

One is lost load, which means spreading fixed costs amongst the smaller base. And then, two, the fact that we are paying that net meter customer full retail rate involves some subsidy. So while

it's an option today, and I believe we are at 17,500 customers who have net metered, that subsidy is growing over time, where we are paying those customers for the fixed costs and spreading it on system. So I think it's a net negative.

COMMISSIONER BROWN: I am going to kind of focus you a little bit more.

THE WITNESS: Sure.

COMMISSIONER BROWN: But you stated that the key -- they system-wide benefits were the deferral of future gas plant and also a greener environment, or the demand for more solar, carbon free environment. So those are the two particular areas that you stated were the system-wide that all ratepayers benefit from on the SolarTogether. I kind of see that -- those also apply to SolarNow, and to Net Metering.

THE WITNESS: That's true on different scales. With Net Metering, I agree it is -- I mean, the benefit of the reduced load is it's less peak load for the system.

COMMISSIONER BROWN: I'm very aware.

THE WITNESS: Right, yeah. And then on SolarNow, it is -- those units were not intended to be cost-effective the way that SolarTogether was.

They are much smaller units, and for a different purpose.

And the cost -- the participants in that program are paying 100 percent of the cost. And the benefit from that is going to net off of the costs that they are paying by a small amount, so --

COMMISSIONER BROWN: So what I am trying to get at is they have very similar system-wide benefits, all three of those complimentary programs. I want to understand why the -- FPL is proposing to charge the non-participants.

THE WITNESS: It's sort --

COMMISSIONER BROWN: Where's the val -- what's the additional value?

THE WITNESS: Right, so in -- maybe a better way to come at it is looking at other programs that are out there, and going back to kind of the customer demand, and then how we chose to meet that in the program.

Many of the programs that are out there reset the benefit rate every year, and they tie it only to the fuel rate, which is only a portion of the benefits that a solar would create. It loses any of the capacity the benefits that the solar would bring to the system if you just pay benefits out

based on the fuel rate.

The problem with that is -- and there is many programs like that around the country, and some in the state of Florida, is that from a customer, or a participants standpoint you don't know what you are really signing up for. You are paying a premium, and I think that was mentioned earlier, but you don't know exactly what the payback is going to be if the benefit rate is going to be reset every year.

So I think as a result of that, most of the programs that are out there are very small in size, right? And our program is at least a magnitude, maybe two magnitudes larger, and I believe, because it's not only solar, but we have tied that together with some certainty on the financial payback.

And so the way that we think about the general body and how that helps is, in early years, because of the declining revenue requirements, we have to levelize the cost for it to be a competitive product that we could offer in the market.

COMMISSIONER BROWN: You couldn't just do community solar for all of those large commercial customers that are getting about 75 percent of the capacity? Why doesn't community solar just work

for those?

THE WITNESS: Could I ask you to define more precisely community -- because this is a flavor or variant of community solar. You are referring to resetting the benefit rate in community solar?

COMMISSIONER BROWN: Yes. Like, no the -- the program that you have with SolarNow, why -- why couldn't you just do a similar program and participants actually pay for the sole benefit of it, and the non-participants are exempt from any type of -- because they are not subscribers, why -- why -- did you not look at them -- at those type of community solar programs that are out there?

THE WITNESS: Well, we looked at -- so SolarNow is not necessarily a community solar program. It's -- I guess the first point is it's not generating benefits, right. It's effectively a cost. So there is nothing to allocate between different bodies. Those assets are not cost-effective compared to a large 75-megawatt facility. So there is no benefits to allocate.

So with that program, we contain the cost and the benefit within it, but it never was going to scale. For example, there is only about two megawatts of that program because we think there is

a limited desire for customers to pay a premium, right.

That program is about education, and awareness, and events, and host sites, and more about just the green benefits; where SolarTogether is about the direct bill benefits, which -- and I think maybe the key here is that the SolarTogether facilities generate net benefits, and really it's a question of how you divide those benefits out. So we're not --

COMMISSIONER BROWN: But you looked at other state programs that have community solar --

THE WITNESS: Yes --

COMMISSIONER BROWN: -- that have also subscriber benefits as well --

THE WITNESS: Right.

COMMISSIONER BROWN: -- similar to this. So I am just trying to understand the -- really, I am focusing on those non-participants, and really get a keen understanding of it.

What would be the bill impact for those non-participants? How does it show up on the bill? Like, I know it would be in the revenue requirement. Would it show up in the customer charge? The fuel charge? How -- what would be

the --

THE WITNESS: In the fuel charge.

COMMISSIONER BROWN: What -- do you have a number of what that would be for a thousand kilowatt hour --

THE WITNESS: I don't have handy, but I think Witness Bores will be able to give you a number for that.

COMMISSIONER BROWN: Do you know how long those charges would continue for, until the next rate case?

THE WITNESS: I don't. No. I think he could probably better answer that question. I don't want to speculate.

COMMISSIONER BROWN: I think the program is fantastic. I just want to get a keener --

THE WITNESS: Yes.

COMMISSIONER BROWN: -- understanding on those non-participants. So if you can elaborate further, that would be great, on how you develop the program to include, during those earlier years the charges on the -- for the non-benefits -- non-participants.

THE WITNESS: Well, we thought a lot about how do we allocate the benefits of a program, right? So you start with the same methodology as SoBRA,

just roll forward a year, assumptions are a little bit different, but we are calculating the benefits on the system, the capacity fuel and others the same way. There is nothing different about that. We net off some administrative benefits to run the program, change the billing system, but we are left with that 249, at least here in the end. We started with a lower number initially.

So a lot of discussions went into how do you balance all these factors? What is fair to give to the participants who are paying 100 percent of the costs of the program over time? And then what do you give to the non-participants, the general body, who are supporting the program in the early years but get paid back effectively in the principle that they've given out.

COMMISSIONER BROWN: On a much longer period, though.

THE WITNESS: Right, on a much longer period.

I will argue that it's not different -- that payback in that profile is not much different than a SoBRA profile, right? The benefits on a typical universal rate-based project look similar because of the shape of the curves in the outer years. So from a standpoint of potential risk, it's -- it's

very similar.

So we spent a lot of time thinking how do you allocate those benefits, and we anchored on one data point, and then the pricing and the allocation were a function of that. And that data point was the payback period, which we set as a simple payback of seven years. And that was based on a couple of years of those conversations with customers, what we saw from rooftop, and our understanding of kind of how customers make decisions.

COMMISSIONER BROWN: And so you developed this program -- you came up with this program because you said that there is the demand by your customers. You have to do it. But there is only -- it looks like there is only 25 percent, right, capacity remaining for the residential, which is the majority of your customer pool.

How are you going to -- how are you going to control that if there is such a high demand, that's -- you expect approximately 74,000. You guys have five million customers. How are you going to control that if you think the demand is there? And why is it only 25 percent for the residential?

THE WITNESS: Sure.

I think, to your first point, we thought about allocation. We ran this pre-registration process early on in the fall of '18 with the large customers because they can really swing a size of a program significantly. A customer like Wal-Mart, a large county, large industrial, could buy 100, 200 megawatts of a program that would really swing the size.

So that's why we went out initially and sized that 1,100 megawatts with specific pricing in terms and conditions, right, so we know that it was real demand and wasn't just general interest. That customers actually -- for most of those customers in the pre-registration process, they had to go through an approval, a city commission vote, county vote, whatever the internal channels large retailers to get approval to sign up for that.

On the residential side, the way we thought about the sizing, the allocation, the 25 percent, was that we've got 50, I think, now 7,000 customers in solar now. We have 17,000 customers who are net metered, but that's the cumulative history of Net Metering for FPL's territory. So it's four or five times, you know, it's grown over the last year, but

four or five times the size of that a reasonable allocation, we felt, yes.

And then I looked now in terms of how have we proved that out. Well, we have 120,000 that are interested, but they are not all going to sign up.

COMMISSIONER BROWN: But there is more come -- like Mr. Cavros said in his opening comments, so many companies are going all green, 100 percent renewable, so I see that the need for the commercial sector, but the residential is also still there.

THE WITNESS: It is. And I think we are -- you know, we are all learning. I -- you know, I said it in my summary, our customers are evolving over time. We all need to contend with the fact that business customers want to get to 100 percent renewable. There is no federal program to mandate that currently. So more and more are taking it upon themselves and setting their own goals and saying that we are going to get there one way or another.

Could the interest be greater? We think it's likely we will have a bit of a waitlist. We don't yet know how big of a waitlist we have when we open full enrollment on the program.

COMMISSIONER BROWN: Is the SolarNow program going to be discontinued if the Commission approves SolarTogether?

THE WITNESS: No.

COMMISSIONER BROWN: So you will have SoBRA projects coming -- rolling out, you will have SolarTogether, you will have SolarNow and you will have Net Metering, all four different segments.

THE WITNESS: That's correct. And I think -- you know, we've said it with this filing. This program, while it's very flexible and cost-effective, it is not going to meet all needs. There are still customers who are going to net meter. I don't think that will slow down. I think there are customers that don't want any solar choice, and they are happy that we do it as general rate-base solar as long as it's lowering the billing because they don't necessarily have specific goals.

So I do think there is no one program out there to meet the need that we are seeing. And I don't think F -- I don't think Florida is different in that sense than many other states, where there is a variety of different programs going on.

COMMISSIONER BROWN: Okay. I may have a

question for you in a little bit. Thanks.

THE WITNESS: Sure.

CHAIRMAN CLARK: Commissioner Fay.

COMMISSIONER FAY: Thank you, Mr. Chairman. Just a few clarifying questions.

The first one is I know you talked about you didn't want to go so far to say that there could be another phase, but just conceptually, we have Phase 1 that has five projects that would build 20 centers, correct?

THE WITNESS: Yes, that's correct.

COMMISSIONER FAY: Okay. And so if they are -- just in your direct testimony, if there were to hypothetically be another phase, and I am not asking you to speak hypothetically about that phase, but just if we were to move forward with another one, you would -- you would come back to the Commission, correct?

THE WITNESS: Yes, that's correct.

COMMISSIONER FAY: Okay. The other question I had for you, it was in your rebuttal. So you talked a little bit about the distribution portion, so I know we talked about the 25 and 75 for the commercial/industrial, and the 25 for the residential/small business. There is a discussion

about some flexibility in those numbers. In your testimony, you talked about providing those numbers. Is there a mechanism for that? Is there a way you do that in other states or --

THE WITNESS: I think specifically we were talking about reporting back after enrollment period how many customers -- what the interest had been, both the waiting list and then how we have fulfilled or not those two different segments of the program, the 75 for the C&I, and the 25 for the small and residential.

I am not sure if the -- you know, I defer to our counsel if there is some ongoing reporting, but we are acknowledge that we are happy to provide that report and give the Commission transparency into what's going on throughout the enrollment process.

COMMISSIONER FAY: Okay, yeah. Your testimony stated that, it just -- it wasn't part of the settlement that was proposed, and so I wanted to make sure that I was clear that that's something that you -- you could do going forward.

THE WITNESS: Yes.

COMMISSIONER FAY: And then the last question sort of -- sort of based off one of the other

questions. We talked about the potential options of fulfilling those cleaner energy goals for folks by looking at options other than Net Metering. You talked a little bit about the commercial/industrial side, but just specifically to the residential side, do you believe that customers could fulfill their -- their goals on that end outside of Net Metering?

THE WITNESS: Well, there is currently no other program that I am aware of other than Net Metering for them to fulfill goals like this. Certainly, FPL is not -- and I am talking about FPL customers that -- that can meet 100 percent of their, you know, load with -- with renewables.

There are some programs out there where you could purchase RECs and offset, and there has been a little bit of that going on. But, again, I don't see that gaining a lot of traction with residential customers either. I think their two choices are really Net Metering, if you can do it, if you have, you know, the roof and the means to do that, or this program.

COMMISSIONER FAY: And this program being the one to allow you to have 100 percent -- I guess either Net Metering or this program would allow you

to fulfill 100 percent of it?

THE WITNESS: Yes, that's correct.

COMMISSIONER FAY: Okay. Good. That's all I had. Thank you.

CHAIRMAN CLARK: All right. Thank you very much.

Commissioner Polmann.

COMMISSIONER POLMANN: Thank you, Mr. Chairman.

Thank you for your testimony. It's been a long one.

In response to Commissioner Brown, you answered a question, and it causes me to focus because, in fact, you stated the real question is how do you divide the benefits?

THE WITNESS: Yes.

COMMISSIONER POLMANN: And there has been a lot of discussion about the benefits among the participants, non-participants, but we've also mentioned the fact that there is a lot of cost here. So $1.8 billion, I think, is the number that's identified as the program cost.

THE WITNESS: Yes.

COMMISSIONER POLMANN: And when we talk about benefits, there are various factors that come in,

and the different scenarios that you looked at with carbon costs -- not carbon -- mid fuel, high fuel, low fuel, so forth.

So the carbon cost, you know, has a tax on the overall costs, however you want to include it, it's -- it's not in a -- not being paid now.

THE WITNESS: Yes.

COMMISSIONER POLMANN: It's one of those future things that may or may not occur.

THE WITNESS: Uh-huh.

COMMISSIONER POLMANN: So in the one scenario absent that, in a mid fuel cost, the net system savings reduces to 159 million.

THE WITNESS: Yes.

COMMISSIONER POLMANN: And then the -- the differential between participants and non-participants, the non-participants reduces to 22 million, but then comments a few minutes ago, early in the program, all customers bills, or specifically non-participants bills are going to increase. Do -- and then also, obviously, the participants have an upfront -- have a cost, are paying for the program.

So in this case where the net benefit for the participants is then substantially reduced in the

calculation, what is the actual benefit that they are receiving in these net savings? Because their bill is obviously going up. They are paying for the program, at least in the early years, they are paying something.

THE WITNESS: That's correct. So if I could answer.

COMMISSIONER POLMANN: Yeah, I am trying to figure out, because, you know, there are so many different scenarios that are being examined, I don't want to just focus on the potential savings without understanding, for the customer -- and it gets back to Commissioner Brown's question. What is the actual impact of the customer bill who is not participating?

THE WITNESS: Right. So let me start on mid fuel/low CO2 --

COMMISSIONER POLMANN: Right.

THE WITNESS: -- and the exhibit that staff had walked us through, which says, as you pointed out, it was 170 million in benefits, and then we net out the admin costs, and what's left is 22 million for the general body.

COMMISSIONER POLMANN: Yes.

THE WITNESS: So that is still -- and I made

that point going through. That it is still cost-effective -- in other words, that is net of all the costs that the general body had paid in the early years, that is their net benefit at the end of the program, the 22 million to the good, if we are on the scenario where CO2 never has a value for 30 years.

The other point I would make about this is in staff's exhibit Interrogatory 254, which laid out the nine-box scenario. And the two middle columns there talk about the overall system and what it would take to generate electricity.

So we have been focused on SolarTogether and the impact to the general body as a -- you know, as a singular thing. But what we have got to remember is the overall system, if carbon on that mid fuel/low CO2 is zero, the overall system production is $3 billion lower than it otherwise would have been. So that's right way risk.

In other words, they may be off a little bit on this program -- and by the way on any solar investment, because this is not any different than any of the SoBRA investments which included carbon or fuel.

If you go to the low/low scenario, customers

would be $9 billion to the better, approximately. So the system would be producing energy to serve that same demand for $9 billion less than it otherwise would have been.

Would SolarTogether for the general body have flipped the other direction? Yes, but 145 million in the other direction but $9 billion of savings in the overall system, right?

COMMISSIONER POLMANN: Understood.

THE WITNESS: So significantly mitigating, in fact, dwarfing the impact of SolarTogether within it.

COMMISSIONER POLMANN: But this is the entirety of the program over 30 years, is that's correct?

THE WITNESS: Yes. I am giving you 30-year numbers, right.

COMMISSIONER POLMANN: So what we typically talk about as an average residential customer and 1,000 megawatts, and so forth, are they going to see a bill increase at the beginning of the program under the proposed tariff?

THE WITNESS: It should be -- and this is where -- we will get this number, and I think I just don't have it because --

COMMISSIONER POLMANN: I understand.

THE WITNESS: -- it may be in Witness Bores or Sim's testimony, but yes, but it's a minor impact that comes through the fuel in the early years because they are helping to pay, but in the back end of the years, they are getting the benefit that pays back what they paid out in the early years, and then they end up with a net total benefit, 30-year benefit 112 million.

COMMISSIONER POLMANN: And that's what we are trying to understand and weigh the total picture, because they are going to compare themselves, if they understand what's going on, those folks who are not receiving the benefit of being a participant may perceive that they are at a disadvantage.

So we are trying to get the big picture of those who -- and that's why it's being discussed about, you know, the 7,000 folks, or the 70,000 compared to the 4.9 million. So I am just trying to give you a flavor from the greater public interest perspective that -- that we are trying to understand.

THE WITNESS: Yes. I understand, Commissioner. I think we will be able to produce

with the other witnesses the specific number that you are looking for.

COMMISSIONER POLMANN: Yeah. And how many years is that beginning the early years of the program? What is that? Five years? 10 years? 15 years? Because that customer may not be in that same residence, may not be in your service area in year 30.

THE WITNESS: Yes, absolutely.

COMMISSIONER POLMANN: It's an important point for us to understand.

THE WITNESS: Yes, absolutely fair.

And I think to put context on it, it would also be helpful for us to lay out a typical solar investment. So a SoBRA investment would have a similar --

COMMISSIONER POLMANN: Well, yes, and I appreciate -- I am sorry to interrupt. I appreciate that. And the question is, this program compared to Net Metering, well, that customer doesn't have the Net Metering option. That customer may already be paying for SoBRA. It's this program or no program is what that customer is concerned about.

THE WITNESS: Yes. Okay.

COMMISSIONER POLMANN: It's this tariff or no tariff.

THE WITNESS: I understand.

COMMISSIONER POLMANN: Because what's before us here in the instant case today is this tariff or no tariff. You have answered that question to staff.

THE WITNESS: Yes.

COMMISSIONER POLMANN: If this tariff is not approved, then SolarTogether is not a program.

THE WITNESS: That's correct.

COMMISSIONER POLMANN: I think that was your answer.

THE WITNESS: Yes. And we would have to evaluate our needs in the 10-year site plan and come back with a different plan at that point.

COMMISSIONER POLMANN: That's -- that's -- that's what I am trying to wrestle with. But thank you. Thank you, I appreciate your answers.

Thank you, Mr. Chairman.

CHAIRMAN CLARK: Thank you, Commissioner Polmann.

All right, redirect, Ms. Moncada?

MS. MONCADA: Briefly. Thank you.

REDIRECT EXAMINATION

BY MS. MONCADA:

Q Mr. Valle, early on, Mr. Rehwinkel asked you whether this is the first program FPL brings to the Commission that asks one set of customers to subsidize another set of customers. And your answer to that, I believe, was -- was yes. Can you clarify?

A Well, I was answering -- I think I was thinking about the specific solar programs. There are programs out there that do share costs, including some DSM programs, or Net Metering, which is transferring between two different groups of customers.

Q And by comparison, what does SolarTogether do?

A SolarTogether is a net benefit creator, right. So we think about SolarTogether is the assignment of benefits, not a subsidy between two -- two different classes of customers.

Q Thank you.

You were asked by the staff attorney, Mr. Trierweiler, whether FPL has provided an economic evaluation regarding the acceleration of the 600 megawatts of solar that appear in the 10-year site plan. Can you comment on whether you or someone else would be the best witness to discuss that economic evaluation?

A Dr. Sim would be better to discuss any impacts

from that.

Q Okay. One brief clarification. When there was a discussion between you and Mr. Trierweiler regarding upfront fees, you mentioned that participants would be paying a premium in the early years. Can you discuss whether that premium would apply also to the low income customers?

A Fair clarification. It does not apply to the low income customers. There would be no premium for low income.

Q Okay. You spent quite a bit of time going over Exhibit 64 with Mr. Trierweiler. And there is a footnote at the bottom of pages one through four that refer back to staff's 13th set of interrogatories, No. 254, as the source for the flowcharts.

A Yes.

Q Okay. Can you comment on whether the set of flowcharts reflected on pages one through four capture all of the information set forth in the response to Interrogatory 254, all the scenarios?

A No, they do not. I had pointed that out, but it was -- the mid/mid scenario was presented, which is what the program is based on, the mid/low where no carbon is assumed is -- was the only other scenario that was presented of the nine.

MS. MONCADA: Nothing further.

CHAIRMAN CLARK: Okay. All right. I believe this concludes this witness.

MS. MONCADA: Mr. Chairman, we have exhibits.

CHAIRMAN CLARK: Okay.

MS. MONCADA: FPL would like to move Exhibit No. 2 and 28.

CHAIRMAN CLARK: So ordered.

(Whereupon, Exhibit Nos. 2 & 28 were received into evidence.)

MS. MONCADA: Thank you.

CHAIRMAN CLARK: All right. That's all?

MR. TRIERWEILER: Staff would like to move Exhibit 63 and 64.

CHAIRMAN CLARK: Okay. Anyone else? Skipping 65?

MR. TRIERWEILER: Skipping 65.

CHAIRMAN CLARK: Okay.

(Whereupon, Exhibit Nos. 63 & 64 were received into evidence.)

CHAIRMAN CLARK: 63 and 64, 2 to 28, did I get them all?

All right, your witness?

MS. MONCADA: May Mr. Valle be excused, at least for his direct and rebuttal testimony?

CHAIRMAN CLARK: Yes, sir. You are excused.

MS. MONCADA: Thank you.

(Witness excused.)

CHAIRMAN CLARK: Okay. Before we move to the next witness, Witness Brannen was stipulated to, our next witness scheduled is Mr. Sim. We are running on 5:45, what do you think in terms of lines of questioning for the next witness, Mr. Rehwinkel?

MR. REHWINKEL: For Dr. Sim, I have a short line of questions for him.

CHAIRMAN CLARK: Okay. Any chance we might can get through this witness, Ms. Putnal?

MR. MOYLE: We may just have a few.

CHAIRMAN CLARK: Say again. I am sorry.

MR. MOYLE: We may have just a few.

CHAIRMAN CLARK: Okay. All right. Well, we are going to try to see if we can get through Mr. Sim, then.

COMMISSIONER GRAHAM: Dr. Sim.

CHAIRMAN CLARK: Dr. Sim.

MS. HELTON: Mr. Chairman, before we bring Dr. Sim up to the stand, were you going to insert Witness Brannen's testimony as shown on the chart that we have given you into the record?

CHAIRMAN CLARK: Yes, ma'am. We will enter his testimony into the record. I thought we did that to begin with.

MS. HELTON: No, sir. We were -- we had suggested that we take up each witness as they fall in the prehearing order, so that way we have built a record that will flow for our use in making a recommendation to you and if someone --

CHAIRMAN CLARK: All right. I think -- I do think Ms. Moncada asked at the very beginning if we could enter that, and did agree to do it then. So for -- am I correct, Ms. Moncada?

MS. MONCADA: You know, just for clarity, it's fine with me to -- if we could maybe just settle at this point to introduce all -- that we would insert into the record all -- that was my understanding, that we would insert into the record all of the stipulated witnesses' testimony and exhibits into the record in the order in which you all had laid out, but I didn't think it meant you had -- we were going to go through the process every time, just that we are -- we have that understanding.

CHAIRMAN CLARK: Okay. You asked, Mary Anne, if we could do it in the order so that it was laid out clear for the record, correct?

MS. HELTON: Yes, sir, but I am kind of old school.

CHAIRMAN CLARK: I am new school, so tell me what school you want to go to.

MS. HELTON: If we could just -- it would just make my heart sit better if we could just go through the motions each time. It will only take a little bit of time, but that way it just gives me a great deal of comfort that we have got it in there correctly.

CHAIRMAN CLARK: And we will do it after the witness testifies, correct?

MS. HELTON: Well, I think now we could take up Bill -- William Brannen's --

CHAIRMAN CLARK: Yes.

MS. HELTON: -- testimony.

CHAIRMAN CLARK: Okay.

MS. MONCADA: FPL requests that the testimony of William Brannen be inserted into the record as though read.

CHAIRMAN CLARK: So ordered.

(Whereupon, prefiled direct testimony was inserted.)

Q. Please state your name and business address.

A. My name is William F. Brannen. My business address is NextEra Energy Resources, LLC ("NEER"), 700 Universe Boulevard, Juno Beach, Florida, 33408.

Q. By whom are you employed and what is your position?

A. I am employed by NEER as a Senior Director for Project Engineering and Due Diligence.

Q. Please describe your duties and responsibilities in that position.

A. I manage the development and implementation of engineering, technology selection, and execution strategies for universal solar and distributed generation projects for NextEra Energy, Inc., the parent of Florida Power & Light Company ("FPL") and NEER. I am responsible for coordinating the activities of project team members to optimize the value of projects by leveraging technology advances, market dynamics, and supplier relationships during the early stage due diligence, permitting, engineering, and execution phases of these projects. My goal is to ensure that development projects meet or exceed reliability and performance requirements while maintaining reasonable costs.

Q. Please describe your education and professional experience.

A. I earned both a Bachelor and Master of Science in Civil Engineering from the University of New Hampshire. Additionally, I hold a Master of Business Administration from Nova Southeastern University. I have been a licensed professional engineer in the State of Florida since 1981. I have worked for

FPL and NEER since 1979. During that time, I have held a variety of technical, operational, commercial, and management positions in areas related to power generation, engineering, and construction. I have experience in a wide range of power generation technologies including nuclear, combined cycle, wind and approximately 3,376 megawatts of alternating current ("MW_{AC}") of photovoltaic ("PV") and concentrated solar thermal facilities. Since 2009, I have been responsible for key aspects of the design and construction of all eighteen of FPL's universal solar energy centers. The total capacity of these centers is approximately 1,228 MW_{AC}, which is made up of one 75 MW_{AC} solar thermal facility and approximately 1,153 MW_{AC} of PV generation at 17 solar energy centers. In addition to these FPL facilities, I have served the same function for 350 MW_{AC} of solar thermal generation in California and Spain, as well as approximately 2,200 MW_{AC} of universal solar PV generation throughout North America outside of Florida.

Q. What is the purpose of your testimony?

A. The purpose of my direct testimony is two-fold. First, I describe the 20 solar energy centers ("Centers") referenced in FPL's Petition for Approval of the FPL SolarTogether Program (or "the Program") and Tariff that was filed on March 13, 2019 ("FPL's Petition"). As part of the description of the Centers, I include an overview of the technology, engineering design parameters, construction, operating characteristics, and overall costs and schedules. Second, I demonstrate that the cost of the components, engineering, and construction estimated for the five FPL SolarTogether Projects ("Projects") is

reasonable.

Q. Are you sponsoring any exhibits in this case?

A. Yes. I am sponsoring Exhibits WFB-1 through WFB-4. The title to each exhibit is shown below, and they are all attached to my direct testimony.

- Exhibit WFB-1 List of FPL Universal PV Solar Energy Centers in Service
- Exhibit WFB-2 Typical Solar Energy Center Block Diagram
- Exhibit WFB-3 Specifications for FPL SolarTogether Projects 1, 2, 3, and 4
- Exhibit WFB-4 Construction Schedules for the FPL SolarTogether Projects

Q. Does FPL have experience in designing and building universal PV solar facilities?

A. Yes. FPL's extensive experience designing and building universal solar generation facilities places it among the leaders in the U.S. Since 2009, FPL has completed 17 universal solar centers totaling approximately 1,153 MW_{AC}. The existing FPL universal solar energy centers range in size from 10 MW_{AC} to 74.5 MW_{AC}. Exhibit WFB-1 provides a list of the FPL universal solar energy centers in service.

Q. Please describe FPL's track record building universal solar PV.

A. The 17 PV universal solar energy centers constructed and placed into operation by FPL were completed an average of 29 days early, at a total cost of $1.85 billion, about 4.6% or nearly $90 million below the cumulative

budget. In addition, each center was completed at or below budget.

Q. Please describe the Centers that comprise the FPL SolarTogether Program.

A. Under the proposed Program, FPL will place in service five Projects made up of 20 individual Centers totaling 1,490 MW_{AC} by April of 2021. Each Center will have a nameplate capacity of 74.5 MW_{AC} and have an individual point of interconnection to the FPL transmission system. Projects 1 and 2, which consist of three Centers each, are currently under construction and are expected to be placed into service by February 1, 2020. The six Centers that comprise Project 3 are expected to be placed into service by January 1, 2021. The last eight Centers that make up the final two Projects will be placed into service by April 1, 2021. The 20 FPL SolarTogether Centers are geographically dispersed throughout FPL's service territory. Site selection for Projects 4 and 5 is preliminary. FPL might ultimately choose different sites for those future Projects if they present risks that could adversely impact the commercial operation date.

Q. Has FPL finalized the site layouts and designs for the FPL SolarTogether Centers?

A. FPL has finalized layouts and designs for Centers that are included in Projects 1 and 2. The layouts and designs for the six Centers in Project 3 are nearing completion. For the eight Centers that comprise Projects 4 and 5, FPL has completed preliminary designs to establish costs and performance and will continue to evaluate potential optimization and improvement opportunities.

Details of the final designs for the Centers in Projects 4 and 5 will differ from the preliminary designs only to the extent such changes result in a greater benefit to FPL's customers. Both my testimony and the analysis presented in FPL witness Juan Enjamio's testimony are predicated on the current state of the designs for all 20 FPL SolarTogether Centers.

Q. Will FPL use the same type of solar panels for the FPL SolarTogether Projects as those used to construct the 2020 SoBRA Project?

A. The solar panels that will be purchased for the FPL SolarTogether Projects are similar, but not identical, to the silicon crystal panels used in the construction of two of the sites that comprise FPL's 2020 SoBRA Project. The difference between the panels used for the FPL SolarTogether Projects and those used for the 2020 SoBRA Project is that the FPL SolarTogether panels have a lower sunlight to direct current ("DC") conversion efficiency.

Q. Why will FPL use different panels for the FPL SolarTogether Projects?

A. Supply and demand market forces drove the panel selection. There was high demand for PV panels in the U.S. market during the period panels will need to be delivered to the SolarTogether sites. Major suppliers have sold out of panels with conversion efficiencies similar to those secured for the 2020 SoBRA Project during the required delivery windows. Furthermore, the panels that FPL will use for FPL SolarTogether are being secured at a lower cost than those used for the 2020 SoBRA Project, which offsets the impact of their lower conversion efficiency.

Q. Aside from the solar panels, please describe the PV generation technology that FPL plans to use.

A. The solar panels will be mounted on either fixed-tilt or tracking support structures depending on individual site characteristics. The panels will be linked together in groups, with each group connected to an inverter, which transforms the DC electricity produced by the PV panels into alternating current ("AC") electricity. The voltage of AC electricity coming out of each inverter is increased by a series of transformers to match the transmission interconnection voltage for each FPL SolarTogether Center. The inverters are paired with a single medium voltage transformer on a common equipment skid to form a power conversion unit ("PCU"). Exhibit WFB-2 provides a typical block diagram depicting the basic layout of major equipment components and Exhibit WFB-3 identifies the specifications for SolarTogether Projects 1, 2, 3, and 4. The specifications for Project 5 have not yet been finalized.

Q. How will the FPL SolarTogether Centers be interconnected to FPL's transmission network?

A. As noted earlier, each of the Centers has an individual point of interconnection to the FPL transmission system. New collection substations with step-up power transformers will be constructed for each site. The step-up power transformers increase the AC voltage from 34.5 kV to the voltages at the transmission point of interconnect. The interconnection voltages for the sites range from 115 kV to 230 kV. For the six Centers included in FPL

SolarTogether Projects 1 and 2, the new collection substations will be connected to the bulk transmission system by either looping existing transmission lines into a new transmission substation or utilizing existing substations. The remaining 14 Centers will be interconnected to FPL's bulk transmission system in a substantially similar manner.

Q. Does FPL's cost estimate include the costs associated with transmission interconnection?

A. Yes. The estimated capital construction cost for each of the Centers includes the projected cost for its unique interconnection configuration.

Q. Are upgrades to the existing FPL bulk transmission system required to accommodate the proposed FPL SolarTogether sites?

A. No system upgrades are anticipated. As a result, there are no costs associated with upgrading FPL's transmission system.

Q. Did or will FPL have to acquire property for the FPL SolarTogether sites?

A. Yes, FPL has acquired property or has purchase options for 19 of the 20 proposed FPL SolarTogether sites. One site that FPL anticipates using for Project 4 will be leased.

Q. Can you explain how FPL acquires and optimizes property for solar energy centers?

A. Yes. FPL identifies candidate parcels available for purchase for solar sites through a review of real estate listings and public land records. FPL screens the list of candidate parcels by using criteria that includes each property's

proximity to a transmission system interconnection point and whether the property provides sufficient acreage to accommodate the expected permitting requirements and the construction of solar sites. Because the landowners sell the parcels as a whole, FPL evaluates the features of each property – such as the presence of wetlands and flood plains, environmental constraints and cultural restrictions – and develops designs that optimize the land use for each parcel.

Q. What are the proposed construction schedules for the FPL SolarTogether Projects?

A. As I noted earlier, Projects 1 and 2 are currently under construction and are expected to be placed into service by February 1, 2020. Project 3 is expected to be placed into service by January 1, 2021, and Projects 4 and 5 are expected to be placed into service by April 1, 2021. The period necessary to complete engineering, permitting, equipment procurement, contractor selection, construction, and commissioning for each Project will range between 18 and 24 months. The construction periods include the time necessary to prepare each of the sites, construct roads and drainage systems, install the solar generating equipment, erect fencing, and build the interconnection facilities. The construction schedules support the proposed commercial in-service dates. Exhibit WFB-4 provides more details regarding the construction schedules for the five FPL SolarTogether Projects.

Q. What is the estimated construction cost for the FPL SolarTogether Projects?

A. FPL estimates the total construction cost of the Projects, including land, will be $1.79 billion or $1,202 per kW_{AC}. Costs may vary either upward or downward on an individual site basis, but FPL expects that the total cost will not exceed $1.79 billion, as stated in FPL's Petition.

Q. Are the cost estimates for equipment, engineering, and construction for the proposed solar generation reasonable?

A. Yes.

Q. What is the basis for your conclusion?

A. Beginning late in 2018 and continuing through this year, FPL solicited proposals for the supply of the PV panels, engineering, procurement and construction ("EPC") services for the sites, construction contractors for the substations, and major electrical equipment consisting of PCUs, and step-up power transformers. The scope of services for the EPC solicitations included the supply of the balance of equipment and materials. The bids from the PV panel manufacturers, the EPC contractors, the major electrical equipment suppliers, and the substation contractors were high quality and extremely competitive. More than 98% of the construction costs are the result of competitive RFP solicitations.

Q. Please describe the competitive solicitations associated with the PV panels for the FPL SolarTogether Projects.

A. Seventeen large, industry-leading suppliers responded to FPL's request for proposals for PV panels. All of these proposals satisfied the requirements, and therefore all were evaluated. Due to the volume of panels required for the Program and availability of supply in the market, FPL contracted with more than one supplier. FPL has secured panels from the lowest cost bidders for Projects 1 and 2. In addition to offering the lowest cost, these suppliers demonstrated that they have the capability to produce high-quality panels, and they provided strong financial performance security. Bid evaluations for the supply of PV panels for Projects 3, 4, and 5 are still in progress.

Q. Please describe the competitive solicitations associated with the EPC contracts for FPL SolarTogether.

A. EPC proposals for the Program's Centers were solicited from seven industry-recognized contractors. The contractors were not required to submit proposals for every FPL SolarTogether site. However, there were at least three proposals for each site.

Three of the contractors elected not to submit proposals. The bids submitted by the four remaining contractors met the requirements of the request for proposals. Accordingly, the proposals from these four contractors were evaluated. In early 2019, FPL executed contracts for Projects 1 and 2 with the lowest cost EPC contractors capable of performing the work in accordance

with each Project's schedule requirements. The bid evaluations are nearing completion for Project 3 and are still in progress for Projects 4 and 5.

Q. Please describe the competitive solicitations associated with major electrical equipment.

A. FPL solicited proposals from nine PCU suppliers. Two of the suppliers elected not to submit proposals. The proposals submitted by the seven remaining suppliers met the requirements of the request for proposals and were evaluated. FPL selected the lowest cost suppliers capable of performing the work in accordance with each Project's schedule requirements to supply the PCUs.

FPL solicited proposals for step-up power transformers from seven industry-leading manufacturers, one of which declined to submit a proposal. FPL evaluated the six qualifying proposals and selected the lowest cost bidder to supply the transformers for five of the six Centers that comprise Projects 1 and 2. A spare FPL transformer will be used at the remaining Center. The cost of the spare transformer is slightly lower than the cost of the transformers selected through the bid process. The bid evaluations are nearing completion for Project 3 and still in progress for Projects 4 and 5.

Q. Please describe the competitive solicitations associated with the substation and interconnection facilities construction contractors.

A. Proposals for the construction of the substation and interconnection facilities were solicited from 16 industry-recognized contractors. Eleven contractors

did not submit bids. The remaining five bids satisfied the requirements of the request for proposal. Not all of the contractors submitted proposals for every Center. However, in all cases, at least two contractors submitted proposals for each Center. Accordingly, these proposals were evaluated. The two lowest cost bidders capable of performing the work in accordance with each Project's schedule requirements were selected to construct the substation and interconnection facilities for Projects 1 and 2. The bid evaluations are nearing completion for Project 3 and are still in progress for Projects 4 and 5.

Q. Please identify how construction cost and schedule risks are being managed during the execution phase of the FPL SolarTogether Projects.

A. As I previously noted, more than 98% of the construction costs are the result of competitive solicitations, all of which are complete or nearing completion. Therefore, there is a high degree of certainty related to the cost to construct the Projects. Likewise, the sites designated for the 20 FPL SolarTogether Centers have been thoroughly evaluated, and permitting for 18 of the 20 sites is either complete or nearing completion. The remaining two sites are located in jurisdictions with well-established permitting processes where FPL has successful permitted generation projects. Accordingly, the risk of material delays due to permitting considerations or site conditions is minimal.

Q Does this conclude your testimony?

A. Yes.

(Whereupon, prefiled rebuttal testimony was inserted.)

Q. Please state your name and business address.

A. My name is William F. Brannen. My business address is NextEra Energy Resources, LLC ("NEER"), 700 Universe Boulevard, Juno Beach, Florida, 33408.

Q. Did you previously submit direct testimony in this proceeding?

A. Yes.

Q. Are you sponsoring any rebuttal exhibits in this case?

A. No.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to address the testimony of Office of Public Counsel ("OPC") witness James R. Dauphinais regarding affiliate-related work and asset transfers and to address Vote Solar witness Matt Cox's testimony related to the competitive bid process used for FPL SolarTogether Projects. In addition, I provide an update on the contracting structure for the engineering and construction of certain FPL SolarTogether Project sites.

Q. Please explain who is performing the development and construction of the FPL SolarTogether sites.

A. Contrary to the speculation offered by OPC witness Dauphinais, the development and construction of the FPL SolarTogether Projects are being managed and directed by Florida Power & Light Company ("FPL" or the "Company"). The vast majority of the individuals working on the FPL SolarTogether Projects are FPL employees or contract personnel working under the direction of FPL. A small number of individuals working on the

projects, such as myself, are employed by NEER but bring our knowledge and experience to both NEER and FPL projects. When NEER employees work on FPL projects, we do so on behalf of FPL – not on behalf of NEER or any other affiliate. FPL provides instructions on the requirement that we direct charge our time and expenses in order to correctly and accurately account for the actual costs of constructing each project. This ensures comprehensive compliance with Florida Public Service Commission ("Commission") and Federal Energy Regulatory Commission affiliate rules and regulations.

Q. Have there been any affiliate asset transfers involved in the development and construction of the FPL SolarTogether sites?

A. No. There is no basis for OPC witness Dauphinais's conjecture related to possible affiliate asset transfers. With respect to FPL SolarTogether Projects 1 and 2, which currently are in the execution phase, there have been no affiliate asset transfers. There likewise will be no affiliate asset transfers involved in Projects 3, 4 and 5.

Q. Please address the transparency of the FPL's competitive bid process, specifically with respect to FPL SolarTogether.

A. Vote Solar witness Cox's suggestion that FPL has not been transparent in its competitive bid process is either misinformed or intentionally disparaging. In reality, FPL has been extremely transparent about its competitive bid process, which is applicable to 98% of the construction costs for the FPL SolarTogether Projects. In addition to the detailed description of the process provided in my direct testimony filed on July 29, 2019, FPL made all

documents associated with any offers, proposals or commitments related to the FPL SolarTogether Project or any components of the FPL SolarTogether Project available to OPC and Commission Staff. In total, more than 2,800 files comprising 18 gigabytes of information were made available for examination, including all requests for proposal ("RFP"), all RFP responses, the associated bid evaluations, and the resulting executed contracts and purchase orders. Additionally, FPL has explained in detail the process it used to evaluate solar module bids and select the lowest-cost suppliers. Because of these effective processes, FPL has established a proven record of obtaining highly competitive pricing on behalf of its customers, particularly for solar projects.

Q. FPL witness Bores explains in his rebuttal testimony that since filing the Petition, the Company has determined that allowance for funds used during construction ("AFUDC") will not accrue for FPL SolarTogether Projects 3, 4 and 5 because the Company was not able to award a single engineering, procurement and construction ("EPC") agreement for all the sites in those Projects. Can you explain why FPL was not able to use a single EPC agreement?

A. Yes. When FPL initially developed the cost estimates for the five FPL SolarTogether Projects, it expected the work for the sites that comprise each Project would be performed pursuant to a single EPC agreement. FPL SolarTogether Projects 1 and 2 are being completed under a single EPC agreement. Over time, however, contractor resources have become constrained due to high demand for 2019 and 2020 solar construction.

Accordingly, when evaluating and securing contracts for Project 3, FPL determined that it could obtain the lowest EPC costs only by awarding construction contracts on an individual site basis and providing the contractors greater flexibility on schedule and in-service dates.

At this time, FPL expects the same contracting structure will be utilized to secure the lowest costs for the sites that comprise FPL SolarTogether Projects 4 and 5.

Q. Does this conclude your rebuttal testimony?

A. Yes.

MS. MONCADA: FPL also asks that all of Mr. Brannen's prefiled exhibits be moved into the record.

(Whereupon, Exhibit Nos. 3-6 & 62 were marked for identification.)

CHAIRMAN CLARK: So ordered.

MS. MONCADA: Thank you.

MR. REHWINKEL: Mr. Chairman, also are we at agreement that Mr. Brannen's deposition goes into the record? I don't know if that's part of -- that's not one of his exhibits.

CHAIRMAN CLARK: Correct.

MR. REHWINKEL: So I just want to be real clear. The deposition, we've agreed, goes in. It's subject, I think, to FPL having opportunity to file an RCC, or request for confidential classification.

And just a minor piece. There was a fairly lengthy errata that was filed. I just want to make sure it's clear that that goes in with the deposition.

CHAIRMAN CLARK: That's correct. That's what's on our list. Yes, sir. We are all in agreement?

MS. MONCADA: Agreed.

THE WITNESS: All right. So ordered.

MS. SIMMONS: Mr. Chairman, I am sorry for interrupting.

CHAIRMAN CLARK: Yes.

MS. SIMMONS: Staff also has questions for Dr. Sim.

CHAIRMAN CLARK: Yes.

MS. SIMMONS: I just wanted to -- I didn't get to mention that.

CHAIRMAN CLARK: Oh, yeah, we are not going to forget you. I promise.

MS. SIMMONS: Okay. Thank you.

CHAIRMAN CLARK: We are just trying to get the timing here to see how long. We may -- we may adjourn before we get finished.

Okay. Dr. Sim, Ms. Moncada.

MR. COX: It will be Mr. Cox here with Dr. Sim.

CHAIRMAN CLARK: Mr. Cox.

MR. COX: FPL calls its next witness Dr. Steven R. Sim.

Whereupon,

STEVEN R. SIM

was called as a witness, having been previously duly sworn to speak the truth, the whole truth, and nothing

but the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. COX:

Q Dr. Sim, were you sworn in earlier at the beginning of this hearing?

A I was.

Q Coul you please state your name for the record?

A Steven R. Sim.

Q And, Dr. Sim, who is your current employer, and what's your business address?

A Florida Power & Light, 700 Universe Boulevard, Juno Beach, Florida.

Q What is your current position with FPL?

A Director of Integrated Resource Planning.

Q Dr. Sim, have you adopted the direct testimony of Juan Enjamio that was filed on July 29th of '19, which consisted of 11 pages of direct testimony in this proceeding?

A Yes.

Q Did you also cause to be filed on January 9th, 2020, an errata modifying his testimony to include your information in place of Mr. Enjamio's?

A Yes.

Q Do you have any other changes or corrections

to this testimony?

A I do not.

Q And if I were to ask you the same questions today as contained in the July 29th prefiled direct testimony as modified with your information, would your answers be the same?

A Yes.

MR. COX: Chairman Clark, we would ask that Mr. Enjamio's July 29th, 2019, prefiled direct testimony as modified and adopted by Dr. Sim be inserted in the record as though read.

CHAIRMAN CLARK: So ordered.

(Whereupon, prefiled direct testimony was inserted.)

ERRATA SHEET OF STEVEN R. SIM

July 29, 2019 – Direct Testimony

PAGE #	LINE #	CHANGE
Page 1	Line 3	Delete “JUAN E. ENJAMIO” and insert “STEVEN R. SIM”

Q. Please state your name and business address.

A. My name is Steven R. Sim, and my business address is 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light Company (FPL) as Director of Integrated Resource Planning.

Q. Please describe your educational background and professional experience.

A. I graduated from the University of Miami (Florida) with a Bachelor's degree in Mathematics in 1973. I subsequently earned a Master's degree in Mathematics from the University of Miami (Florida) in 1975 and a Doctorate in Environmental Science and Engineering from the University of California at Los Angeles (UCLA) in 1979.

While completing my degree program at UCLA, I was also employed fulltime as a Research Associate at the Florida Solar Energy Center during 1977 - 1979. My responsibilities at the Florida Solar Energy Center included an evaluation of Florida consumers' experiences with solar water heaters and an analysis of potential renewable energy resources applicable in the Southeastern United States, including photovoltaics, biomass, and wind power.

In 1979, I joined FPL. From 1979 until 1991, I worked in various departments including Marketing, Energy Management Research, and Load Management, where my responsibilities concerned the development, monitoring, and cost-effectiveness analyses of demand side management (DSM) programs. In 1991, I joined my current department, then named the System Planning Department,

where I held different supervisory and/or managerial positions dealing with integrated resource planning (IRP). I assumed my present position in 2017.

Q. Please describe your duties and responsibilities for FPL in your current position.

A. I direct and perform analyses that are designed to determine the magnitude and timing of FPL's resource needs and then develop the integrated resource plan with which FPL will meet those resource needs. I also direct and perform analyses that are designed to otherwise improve system economics and/or enhance system reliability for FPL's customer.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF JUAN E. ENJAMIO

DOCKET NO. 20190061-EI

JULY 29, 2019

Q. Please state your name and business address.

A. My name is Juan E. Enjamio. My business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light Company ("FPL" or the "Company") as Manager of Analytics in the Finance Department.

Q. Please describe your educational background and professional experience.

A. I graduated from the University of Florida in 1979 with a Bachelor of Science degree in Electrical Engineering. I joined FPL in 1980 as a Distribution Engineer. Since my initial assignment at FPL, I have held positions as a Transmission System Planner, Power System Control Center Engineer, Bulk Power Markets Engineer, Supervisor of Transmission Planning, Supervisor of Supply and Demand Analysis, and Supervisor of Integrated Analysis – Resource Planning. In 2014, I became Manager of Analytics – Finance Department.

Q. Please describe your duties and responsibilities in your current position.

A. In my current position as Manager of Analytics, I am responsible for the management and coordination of economic analyses of alternatives to meet FPL's resource needs and maintain system reliability.

Q. Are you sponsoring an exhibit in this case?

A. Yes. I am sponsoring the following exhibits which are attached to my direct testimony:

- JE-1 Load Forecast
- JE-2 FPL Fuel Price Forecast
- JE-3 FPL Resource Plans
- JE-4 CPVRR – Costs and (Benefits)

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present FPL's economic analysis which shows that the FPL SolarTogether Program (or "the Program"), as described below, is cost effective. The Program consists of five FPL SolarTogether Projects ("Projects") with a total of 20 sites, with a nameplate capacity of 1,490 megawatts of alternating current ("MW_{AC}") universal solar photovoltaic ("PV") generation. Some of the Projects are estimated to enter commercial operation beginning in early 2020, with the last of the Projects estimated to come online by April 2021. My testimony covers several areas. First, I briefly describe the FPL SolarTogether Program. Second, I discuss the major assumptions and the methodology used to perform the economic analysis. Third, I present the results of the economic analysis demonstrating that the addition of 1,490 MW_{AC} of solar PV generation is projected to be cost-effective.

Q. Please summarize your testimony.

A. FPL is proposing the construction and operation of 1,490 MW_{AC} of solar PV generation, with Phase 1 consisting of five FPL SolarTogether Projects that comprise a total of 20 74.5-MW solar energy centers ("Centers"). FPL performed an economic analysis and determined that the FPL SolarTogether

Program is projected to result in a reduction in the cumulative present value of revenue requirements ("CPVRR") to FPL customers, for a total savings of approximately $139 million. In addition, the Program is projected to result in a significant reduction in air emissions, primarily carbon dioxide ("CO_2") resulting from a reduction in the projected use of fossil fuels, which will in turn lower FPL's system reliance on generation fueled by natural gas.

Q. Please describe the Centers proposed by FPL to support the Program.

A. The FPL SolarTogether Program consists of a total of 20 Centers, each with a nameplate capacity of 74.5 MW_{AC}. The Program is divided into five separate Projects. The first two of these Projects will each consist of three Centers with a total capacity of 223.5 MW_{AC} per Project. The third Project consists of six Centers with a total capacity of 447 MW_{AC}. The last two Projects, each consisting of four Centers, will have a total capacity of 298 MW_{AC} per Project. All together, the 20 Centers to be constructed for FPL SolarTogether will have a total nameplate capacity of 1,490 MW_{AC}. On average, these Centers will have a capacity factor of 26.2% and will generate a total of approximately 3,400,000 MWh in a year. This is enough energy to serve the annual energy needs of about 260,000 homes.

Q. What are the major system assumptions used in the economic analysis of the Projects?

A. The major assumptions used in the analysis are consistent with FPL's 2019 Ten Year Site Plan ("TYSP"), which the Company filed in April 2019:

- **Load Forecast –** The analysis uses FPL's most recent long-term load

forecast, approved as FPL's official load forecast in December 2018. This load forecast, including system peaks and net energy for load, also was used to support FPL's 2019 TYSP, 2019 Demand Side Management ("DSM") Goals filing, and 2020 Solar Base Rate Adjustment ("SoBRA") filing, and is shown in Exhibit JE-1;

- **Fuel Price Forecast –** The analysis uses FPL's most recent long-term fuel forecast, based on FPL's standard long-term fuel forecasting methodology, approved as FPL's official fuel price forecast in December 2018. This fuel forecast was utilized to support FPL's 2019 TYSP, 2019 DSM Goals filing and 2020 SoBRA filing, and is shown in Exhibit JE-2; and
- **CO_2 Emission Price Forecast -** The CO_2 cost projections used in this filing are based on ICF's proprietary CO_2 compliance costs forecast dated November 2018. ICF is a consulting firm with extensive experience in forecasting the cost of complying with the regulation of air emissions and is recognized as one of the industry leaders in this field. This forecast, which assumes that CO_2 compliance costs will start in the year 2026, was used in preparing FPL's 2019 TYSP, 2019 DSM Goals filing and 2020 SoBRA filing. FPL has utilized ICF's CO_2 emission price forecast in preparing its resource plans since 2007, including the economic analyses presented in the need determination dockets for the Okeechobee Clean Energy Center (Docket No. 150196-EI) and Dania Beach Clean Energy Center (Docket No.

20170225-EI), previous SoBRA filings (Docket Nos. 20170001-EI, 20180001-EI and 20190001-EI), and the Nuclear Cost Recovery proceedings (Docket Nos. 150009-EI and 160009-EI).

Q. Please describe the resource plans that formed the basis for FPL's cost-effectiveness analysis.

A. For the purpose of this filing, and similar to the approach used for FPL's SoBRA filings, FPL developed two resource plans. In the first resource plan, called the "No ST Plan," no new solar facilities are assumed beyond the 2019 SoBRA Project. In this resource plan, future resource needs are met by batteries, combustion turbines, and combined cycle units.

The second resource plan, called the "FPL SolarTogether Plan," adds the 20 Centers constructed for the Program. As a result of adding the FPL SolarTogether Program, a 235 MW combustion turbine and 500 MW of batteries are no longer needed.

These two resource plans are shown in Exhibit JE-3.

Q. How does FPL project the energy production of the Centers proposed under the Program?

A. The projections of energy production from the solar power facilities proposed under this program were developed by NextEra Analytics LLC, a wholly owned indirect subsidiary of NextEra Energy Resources LLC. NextEra Analytics used the commercially available PVsyst software package which is

widely used in the solar industry. Key inputs into the PVsyst model were: more than 19 years of historical satellite irradiance data, available on-site preconstruction meteorological stations, equipment layout specifications such as module type, inverter type and ratio of total module capacity to the point of interconnection capacity (DC/AC ratio).

Q. How did FPL determine the firm capacity that these Centers will provide?

A. As FPL has done for its SoBRA facilities, firm capacity value for the Centers is calculated based on the expected output of a solar facility at the time of summer peak load, which typically occurs in August from 4 p.m. to 5 p.m., and winter peak load, which typically occurs in January from 7 a.m. to 8 a.m. FPL applies this same methodology to all of its solar PV facilities, existing or new.

The Centers are projected to have an average summer firm capacity value of approximately 49% of their nameplate rating. Therefore, the 20 Centers, with a total nameplate capacity of 1,490 MW_{AC}, are assumed to have a total firm capacity of 735 MW_{AC} at the time of summer peak. These solar installations are assumed to have zero firm capacity value at the time of winter peak due to FPL's winter peak occurring in the early morning, when there is little or no solar generation output.

Q. Does the addition of large amounts of solar generation capacity affect the calculation of solar firm-capacity value for this Program?

A. No. Large additions of solar generation can impact the computation of the firm capacity value of new solar project. However, FPL has performed studies that show that this impact will not take place with the amount of new solar generation proposed under this Program. Solar generation at the time of the summer peak hour reduces the amount of load to be served by non-solar generation at that hour. Since solar power plants generate less energy in the hours that follow, a sufficiently large amount of solar generation will shift the peak hour to be served by non-solar generation to a later hour where there is lower solar energy generation, thereby reducing the solar firm capacity value. FPL will continue to study the firm capacity value of solar projects that are expected to be added after this Program and will adjust the firm capacity for any future projects if needed.

Q. How does the fact that solar projects have little or no winter firm capacity value impact the reliability of FPL's generation system?

A. FPL uses three reliability criteria to ensure its generation system is reliable and will meet the needs of its customers. All three of these criteria account for the fact that solar projects do not have significant firm capacity value during winter peaks.

The three criteria are:

- 20% system reserve margin at the time of both summer and winter

peak load

- 10% generation-only reserve margin ("GRM") at the time of both summer and winter peak load
- Loss-of-load probability (LOLP)

The summer reserve margin criteria (both the 20% system reserve margin and/or the GRM) have historically driven the need for new generation reserves. One factor that explains why summer reserves, not winter reserves, drive the generation resource need is that most fossil generating units have significantly higher generating capacity at the very low winter temperatures expected at the time of winter-peak loads. For example, FPL's generation fleet had a total summer peak generation capacity of 24,373 MW as of December 31, 2018. The winter peak generation capacity of the same fleet was 25,862 MW, approximately 6% higher. Another major factor is that the projected winter peaks are lower than the projected summer peaks. As a result of these two factors, FPL can add a significant amount of solar generation capacity, with essentially no winter capacity value, and still meet the annual LOLP, 20% winter reserve and 10% winter GRM criteria.

The computation of LOLP accounts for the actual firm capacity of solar generation at the time of each day's peak load. The lack of firm winter peak capacity of solar, and its impact on reliability, is already addressed in this computation.

Q. Please provide an overview of the analytical process that FPL used to determine the cost-effectiveness of the FPL SolarTogether Program.

A. FPL used the hourly production costing model UPLAN to forecast the system economics and compare the two previously mentioned resource plans that include or exclude the FPL SolarTogether Program. This model has been used by FPL in prior Commission proceedings, including each of its previous petitions for SoBRA approval. Each UPLAN modeling run is used to determine generation system costs, consisting primarily of fuel costs, variable O&M costs, and emissions costs for a given resource plan. The output of each of the UPLAN model runs is then imported into FPL's Fixed Cost Spreadsheet ("FCSS") Model, which adds fixed costs such as capital costs, capital replacements costs, and fixed O&M costs.

Q. Is this the same analytical process FPL used in previous economic analyses of universal solar energy centers?

A. Yes.

Q. Please provide the result of the economic analysis.

A. The CPVRR net benefit to FPL customers from the Program is projected to be approximately $139 million, as shown in Exhibit JE-4. To determine the CPVRR net benefit of the proposed solar generation, FPL subtracted the CPVRR of the "No ST Plan" from the CPVRR of the "FPL SolarTogether Plan."

Q. Will the FPL SolarTogether Program reduce FPL's use of fossil fuel?

A. Yes. The Program is expected to reduce the annual average use of natural gas

by 21,600 million cubic feet, reducing FPL's reliance on fossil fuels.

Q. What effect will these Centers have on the use of fossil fuels and the emission of greenhouse gases and other air emissions?

A. The expected reduction in the use of fossil fuels due to the operation of the Centers included in the Program are projected to reduce global warming gases, specifically CO_2, at an average rate of 1,281,000 tons per year. This reduction in CO_2 is equivalent to removing approximately 247,000 cars from the road. Sulfur dioxide and nitrogen oxide emissions are projected to be reduced by an annual average of 6 tons and 134 tons, respectively.

Q. What is your conclusion regarding the FPL SolarTogether Program?

A. As demonstrated by the economic analysis described in my testimony, the addition of the FPL SolarTogether Program is projected to result in CPVRR savings of approximately $139 million. Additionally, the FPL SolarTogether Program is projected to reduce the use of fossil fuel, reduce air emissions, and reduce FPL's reliance on natural gas.

Q. Does this conclude your testimony?

A. Yes.

BY MR. COX:

Q Dr. Sim, did you also have attached to that testimony Exhibits JE-1 through JE-4?

A Yes.

Q Do you have any corrections or changes to those exhibits?

A No.

MR. COX: Chairman Clark, these exhibits have been identified as exhibits, I believe, 7 through 10 on the staff comprehensive exhibit list.

BY MR. COX:

Q Turning to your rebuttal testimony, Dr. Sim, have you adopted the rebuttal testimony of Juan Enjamio that was filed on September 23rd, 2019, which consists of --

A Yes, I have.

Q And that consisted of 16 pages of testimony?

A Yes.

Q Did you cause to be filed on January 9th, 2020, an errata modifying this rebuttal testimony to include your information in place of Mr. Enjamio's?

A Yes.

Q Do you have any other changes or corrections to this testimony?

A Other than already filed errata to two

exhibits, no.

Q Okay. And I will mention those in a minute.

If I were to ask you the same questions today as contained in that September 23rd, 2019, rebuttal testimony as modified with your information in place of Mr. Enjamio's, would your answers be the same?

A Yes.

MR. COX: Chairman Clark, FPL would request that Mr. Enjamio's September 23rd, 2019, rebuttal testimony as modified and adopted by Dr. Sim be inserted in the record as though read.

CHAIRMAN CLARK: So ordered.

MR. COX: Thank you.

(Whereupon, prefiled rebuttal testimony was inserted.)

ERRATA SHEET OF STEVEN R. SIM

September 23, 2019 – Rebuttal Testimony and Exhibit

PAGE #	LINE #	CHANGE
Page 1	Line 3	Delete “JUAN E. ENJAMIO” and insert “STEVEN R. SIM”
Page 2	Line 4	Delete “Juan E. Enjamio” and insert “Steven R. Sim”
Exhibit JE-5		Total Reserve Margin % without unit additions for the year 2020 (column 2) from “19.1%” to “19.9%”
Exhibit JE-5		Total Generation-only Reserve Margin % without unit additions for the year 2020 (column 4) from “10.0%” to “10.7%”

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

REBUTTAL TESTIMONY OF JUAN E. ENJAMIO

DOCKET NO. 20190061-EI

SEPTEMBER 23, 2019

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Juan E. Enjamio. My business address is Florida Power & Light Company ("FPL"), 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. Did you previously submit direct testimony in this proceeding?

A. Yes.

Q. Are you sponsoring any rebuttal exhibits in this case?

A. Yes. I am sponsoring the following rebuttal exhibits:

- JE-5 Need Without New Generation Resources
- JE-6 Resource Plans
- JE-7 CPVRR
- JE-8 System Average Rate Impact
- JE-9 Sensitivity Analysis
- JE-10 Sensitivity Analysis – General Body of Customers

Q. What is the purpose of your rebuttal testimony?

A. My rebuttal testimony addresses a number of statements and recommendations made by three intervenor witnesses who filed testimony in this docket: Vote Solar witness Cox, Office of Public Counsel ("OPC") witness Dauphinais and Florida Public Service Commission ("Commission") Staff witness Hinton, from a resource planning perspective.

II. RESOURCE NEED ADDRESSED BY FPL SOLARTOGETHER

Q. On page 21, lines 12-13, OPC witness Dauphinais contends that FPL has not demonstrated that it needs to make resource additions in 2020 and 2021. Please address this contention.

A. Witness Dauphinais is not correct. At the same time that FPL's SolarTogether Program ("Program") was designed to satisfy customer demands, as explained in the testimony of FPL witness Valle, the Program also addresses need. Specifically, these cost-effective resource additions ensure that FPL meets its summer reserve margin criteria for 2020 and 2021. As shown in Exhibit JE-5, FPL has a need for additional capacity of approximately 20 MW in 2020 and more than 250 MW in 2021. This need continues to grow to more than 4,700 MW by 2030. As described in my direct testimony, the Program adds 735 MW of firm capacity, 220 MW in 2020 and 515 MW of firm capacity in 2021, meeting FPL's need for additional resources in those years in order to meet the approved reserve margin criteria. Witness Dauphinais might not have reviewed all the information that FPL provided in response to Staff Interrogatories.

III. UPDATED COST-EFFECTIVENESS ANALYSIS

Q. Has Staff asked FPL to reevaluate the economics of FPL's SolarTogether Program using updated assumptions?

A. Yes. Staff's Interrogatory No. 190 requested that FPL prepare an economic analysis that includes the projection of incremental demand-side management ("DSM") based on FPL's proposed DSM goals as well as assuming that the 2020 Solar Base Rate Adjustment ("SoBRA") projects are included in both the No SolarTogether base case ("No ST Plan") and the SolarTogether Resource Plans. The results of that analysis confirm that the Program is cost-effective for all customers, not just participants, and provide further support in contradiction to the claims of witness Dauphinais that there is "nearly an equal likelihood" that FPL SolarTogether results in a loss or benefit to customers.

Q. Did FPL apply the same assumptions as were used in the analysis reflected in your direct testimony?

A. Yes, all assumptions, including the load forecast, fuel price forecast and carbon cost forecast, remain the same, other than changes suggested by Staff. In addition, the revenue requirements for the Program were reduced due to the removal of allowance for funds used during construction ("AFUDC") for Projects 3, 4 and 5 as described by witness Bores. Accordingly, in the updated economic analysis, the "SolarTogether Plan" does not include AFUDC for those projects.

Q. Did FPL apply the same methodology described in your direct testimony to determine the cost-effectiveness of the FPL SolarTogether Program?

A. Yes. As was done in the cost-effectiveness analysis whose results are reflected in Exhibit JE-7, FPL used the EGEAS optimization model to develop a resource plan for both the "No ST Plan" and the "SolarTogether Plan." The EGEAS model was given a set of resource options that included solar generation in the FPL SolarTogether Project, 100 MW batteries, combined-cycle units and simple-cycle combustion turbines. The resource options available were unchanged from those used in the 2019 Ten Year Site Plan process, with the sole exception that new solar projects beyond the 2020 SoBRA and the FPL SolarTogether Project were removed as future resource options. For each of the two plans the EGEAS model determined the resource plan which resulted in the lowest cumulative present value revenue requirement ("CPVRR"), while meeting the reliability requirements of a minimum of 20% total reserve margin and 10% generation-only reserve margin. The EGEAS optimization may result in resource plans with annual reserve margins greater than the required reserve margin minimum levels if it was more cost-effective to do so.

Once developed with the use of the EGEAS model, FPL modeled the two resource plans in the UPLAN production-costing model. UPLAN is an hourly-chronological model with a more accurate representation of solar generation and in general a more detailed commitment and dispatch logic.

The results of the UPLAN model were used to determine the variable system benefits (fuel, variable operations and maintenance, and emission costs) for both the "No ST Plan" and the "SolarTogether Plan

Q. Can you explain why the resource plans FPL used to evaluate cost-effectiveness did not include future solar additions beyond the proposed 2020 SoBRA and FPL SolarTogether installations?

A. Yes. In this docket, FPL is requesting approval for only the solar projects in the Program. To isolate the benefits of the solar project under study, FPL must do a comparison of two resource plans: one with, and one without the FPL SolarTogether Projects. The nature of all solar generation is that several of its characteristics such as firm capacity, effects on load shape, and reduction in the amount of required firm gas transportation are affected by solar generation projects that are constructed later, with the earlier solar projects having more value. Including future solar projects beyond 2021 would result in understating the benefits of the FPL SolarTogether Program. It is simply not sensible to include solar generation additions beyond the FPL SolarTogether and the 2020 SoBRA projects in the cost-effectiveness analysis of FPL's SolarTogether Projects as the future solar distorts the economics of the decision at hand.

Q. Please describe the resource plans used in this analysis.

A. The resulting resource plans are shown on Exhibit JE-6. The "No ST Plan" meets the 2020 and 2021 need of 250 MW by adding 100 MW of batteries in 2020 and 200 MW of batteries in 2021. The rest of this resource plan, through

2030, consists of two combustion turbines in 2022 and another two combustion turbines in 2023, as well as combined-cycle units in 2025 and 2028.

The "SolarTogether Plan" shows the changes in the plan when the generation from FPL SolarTogether is added to the system. The FPL SolarTogether sites with their firm solar capacity of 735 MW eliminate the need for the 300 MW of batteries in 2020 and 2021. They also reduce the total number of combustion turbines added in 2022 and 2023 by one combustion turbine. Finally, the in-service date of the combined-cycle unit selected in 2028 was deferred by one year.

Q. Please describe the results of the updated economic analysis.

A. The updated cost-effectiveness analysis includes incremental DSM, adds the 2020 SoBRA Project and reduces AFUDC as described above. The results of the updated analysis show that the FPL SolarTogether Program will result in savings of $249 million CPVRR as shown in Exhibit JE-7. This is an increase in customer savings of $110 million CPVRR compared to the analysis in my direct testimony.

Q. Did FPL compute a system average rate impact for the FPL SolarTogether Program?

A. Yes. FPL performed a system average rate impact calculation for the Program using the updated cost-effectiveness analysis. This calculation shows that the system average rate starts to decline in 2027. Please see Exhibit JE-8.

Q. Did FPL perform a fuel and carbon costs sensitivity analysis using the updated presumptions?

A. Yes. FPL completed a sensitivity analysis using three fuel forecasts and three CO_2 price scenarios, for a total of nine sensitivity cases, including the base analysis. Exhibit JE-9 shows the results of the sensitivity analysis on a system basis. As shown in this exhibit, the Program would be cost-effective in eight of the nine sensitivity cases. Only in one of the nine scenarios, the scenario which assumes low gas costs and zero CO_2 costs through 2051 (*i.e.*, Low CO_2 case), is the Program projected to be marginally uneconomic, but just by $8 million CPVRR. Exhibit JE-10 shows the results of the same sensitivity cases, but provides the impact to the general body of customers. As shown in this exhibit, the only two scenarios in which the general body of customers could see an unfavorable CPVRR are based on a low fuel cost forecast – in which case, customers would be benefitting from those low fuel costs overall. Moreover, in four of the nine scenarios, the projected net benefits to the general body significantly exceed the baseline scenario.

Q. Vote Solar witness Cox states that other stakeholder benefits will only materialize if a series of FPL forecasts materialize. Is he correct?

A. Witness Cox was primarily addressing FPL's fuel and CO_2 price forecasts. It is necessary to base any economic analysis on the best assumptions available at the time the analysis is conducted. FPL based its analysis on the latest available CO_2 price forecast developed by ICF which is widely recognized as a leading expert in this field. For its fuel forecast, FPL used its long-term fuel

forecasting methodology which has been used in numerous dockets in front of the Commission. The CO_2 and fuel price forecast, and the corresponding sensitivities, used in the FPL SolarTogether Program are reasonable and can be relied upon by the Commission in its evaluation for approval.

Q. Witness Dauphinais contends that, given that the indicators point to abundant natural gas for the foreseeable future and that no CO_2 emission regulation is in place today, FPL should rely only on the results of its four cases involving low and medium price assumptions for natural gas and CO_2 emissions. Is this correct?

A. No, witness Dauphinais's analysis is based on what FPL is experiencing today and is an improper and shortsighted approach to planning. Simply put, it fails to take into consideration the full planning horizon. This methodology has been approved in numerous dockets by the Commission and has served FPL's customers well. The results of all nine sensitivity cases using high, medium and low natural gas and CO_2 prices forecasts should be taken into consideration. Natural gas prices have declined since 2007 but this price decline and its causes are already reflected in the mid-band forecast of natural gas prices. CO_2 forecasts have significantly declined since FPL started using CO_2 price forecast from ICF in 2007. But again this price decline and its causes are reflected in ICF's mid-band CO_2 price forecast. High-band forecasts for both natural gas and CO_2 prices reflect a real possibility that prices will be higher than the projected mid-band values. As an example, higher prices for both natural gas and CO_2 could be driven by new federal

laws and regulations that could become a reality based on the outcome of future congressional and presidential elections. All nine sensitivity cases represent realistic scenarios and should be taken into consideration.

IV. INADEQUACY OF LEVELIZED COST OF ELECTRICITY TO DETERMINE COST-EFFECTIVENESS OF SOLAR

Q. In his testimony, Vote Solar witness Cox refers to a number of analyses that show solar as the least-cost source of new generation in Florida. Is he correct?

A. FPL's economic analyses, as shown in this docket and in previous solar energy dockets, as well as in FPL's 2019 Ten Year Site Plan, have shown that solar generation is a cost-effective part of FPL's future resource mix. However, witness Cox incorrectly relies on studies based on a faulty methodology for determining the cost-effectiveness of generation resources when integrated into a utility system. The analyses that witness Cox refers to are based on a methodology that compares the levelized cost of electricity ("LCOE") of different generation technologies. This method is inadequate to determine the cost-effectiveness of a generation resource plan as it ignores the interaction of the given resource to the overall generation system of a given utility.

An LCOE calculation looks at the projected $/MWh, or cents/kWh, cost of an individual resource option to either generate electricity or to reduce electricity use. However, the perspective taken is solely of the individual resource option and assumes that the resource option is completely isolated from the utility system. In other words, an LCOE calculation is based on a starting point assumption that the generator has no connection or interaction to a utility system. The LCOE calculation then develops a cost of operating only that resource.

Q. Is the LCOE calculation realistic?

A. No. The starting point assumption for LCOE is clearly illusory because any resource option must be and will be connected to the utility system. As a result, the addition of the resource option will have a number of impacts on the operation of other existing resources on the utility system. These are termed "system impacts" and are accounted for in IRP analyses, but are not considered in LCOE calculations.

LCOE calculations (also commonly called "screening curve" analyses) may be useful only in screening applications where similar resources are being compared. In fact, LCOE calculations can only provide meaningful screening results when the resources in question are identical, or nearly identical, in regard to at least four characteristics:

(1) resource capacity (MW);

(2) the percentage of the resource's capacity (MW) that is firm capacity;

(3) the ability (or inability) to generate at all hours of the day; and

(4) the projected life of the resource

If all these characteristics of competing resources are identical, or nearly identical, the system impacts of the individual resources will be similar and can be ignored in a simple screening such as LCOE.

Q. Do the generation resource options available to FPL share the minimal characteristics necessary to warrant an LCOE calculation?

A. No. The future technologies available to FPL are solar projects, batteries, natural-gas fired combustion turbines and combined-cycle units. These resource options are very dissimilar in nature and share few, if any, of these four characteristics. Therefore, use of an LCOE calculation to compare these very dissimilar resource options cannot provide meaningful results. Most importantly, because an LCOE calculation fails to account for a number of system cost impacts that must be known before the complete cost profile of competing resource options is known, LCOE calculations should never be used to make a final resource decision for a utility.

V. FPL'S PROGRAM DOES NOT CAPTURE ALL COST-EFFECTIVE SOLAR

Q. On page 10, lines 4-14, of his testimony, Vote Solar witness Cox alleges that FPL's SolarTogether Program is not sized to capture all cost-effective incremental solar available to FPL through 2030, and instead is sized to service the needs of a particular set of customers. Is this accurate?

A. Vote Solar witness Cox is in part correct. The FPL SolarTogether Program was sized to meet a particular customer demand, as described in the testimony of FPL's witness Valle. This does not imply, however, that FPL is not planning to construct additional solar generation beyond the FPL SolarTogether Program.

Vote Solar witness Cox's suggestion that FPL should be, as part of this docket, seeking approval for a significantly larger amount of solar generation, at this time, is incorrect. As shown in its 2019 Ten Year Site Plan, FPL has identified additional cost-effective solar generation through 2030 beyond the solar generation that is part of the FPL SolarTogether Program. However, FPL is not before the Commission requesting approval of all of the projects that comprise its long-term resource plan projects, including solar projects contemplated well into the future. FPL will continue to study the timing of

cost-effectiveness of future solar generation and will plan for construction at the appropriate time.

VI. COST-EFFECTIVENESS METHODOLOGY

Q. Does FPL's methodology for evaluating cost-effectiveness differ between solar projects installed pursuant to its 2016 Rate Settlement Agreement and other generation resources?

A. No. OPC witness Dauphinais claims that the cost-effectiveness for solar projects constructed pursuant to the SoBRA mechanism does not apply to any other resource proposals. But FPL does not interpret the SoBRA cost-effectiveness language to establish any different cost-effectiveness standard from that which FPL uses in other resource planning decisions. FPL consistently applies the same cost-effectiveness methodology for all its solar analyses regardless of the cost-recovery mechanism that applies to a given project. Therefore, FPL has used the same methodology for FPL SolarTogether than it has used for all its solar projects to date, including SoBRA projects, rate-based solar and now the FPL SolarTogether Program.

Q. OPC witness Dauphinais contends that it is not fair that FPL does not take payback time into consideration in its cost-effectiveness analysis. Is he correct?

A. No, witness Dauphinais's contention would inject an entirely new standard in Florida utility resource planning. Such a standard would upend the way in

which utilities plan for the long-term reliability of their systems and would potentially result in customers forfeiting millions or even billions of dollars in system savings. FPL believes that the longstanding approach to resource planning continues to be the right approach. In short, the costs and benefits of a resource planning addition should be considered over the life of the proposed project. Using the standard of lowest levelized electric rate impact, or CPVRR in the case where DSM levels are fixed, over the life of a project has been used by FPL in every resource decision analysis presented to the Commission. Applying this standard consistently over time will ensure lowest electric rates to the customers and current customers are benefiting from the fact that this approach has been consistently applied over time. The results of that planning approach have been exceptionally positive for FPL's customers in terms of the FPL system's performance, providing high reliability at low cost.

Q. Witness Dauphinais states that FPL has not shown that its proposed construction of all of the Phase 1 projects is the most cost-effective option to reliably add 1,490 MW of new solar generation for either participants or the general body of customers. Is he correct?

A. No, he is not correct. The cost-effectiveness analyses FPL performed for the FPL SolarTogether Program are based on reasonable assumptions including all viable resource options and utilize the same economic analysis methodology that FPL has used in all its solar analyses to date including solar projects to be recovered through base rates, solar projects whose costs are

recovered through the SoBRA mechanism, and this FPL SolarTogether project. In fact, other than recognizing the characteristics particular to solar generation, FPL's cost-effectiveness used in this docket is the same methodology that it uses in all its resource planning analyses brought in front of the Commission. FPL's original analysis as included in my direct testimony, the updated analysis as described in this rebuttal testimony and the majority of sensitivity analyses of the FPL SolarTogether Program show that adding 1,490 MW of solar is solidly cost-effective.

Q. Does this conclude your rebuttal testimony?

A. Yes.

BY MR. COX:

Q Dr. Sim, did you have also exhibits JE-5 through JE-10 attached to the prefiled rebuttal testimony that you have adopted?

A Yes.

Q Did FPL cause to be filed an amendment to Exhibit JE-7 on October 28th, 2019?

A Yes.

Q Do you have any other corrections or changes to these exhibits? I believe FPL did file an errata to JE-5 on January 9th, is that correct?

A That is correct.

MR. COX: Chairman Clark, these exhibits as amended and corrected have been identified as Exhibits 30 through 35 on the staff comprehensive exhibit list.

BY MR. COX:

Q Dr. Sim, have you prepared a combined summary of your direct and rebuttal testimonies that you are adopting in this proceeding?

A Yes, I have.

Q With that, could you please provide it to the Commission at this time?

A I will.

Good afternoon, Chairman Clark and

Commissioners. Before I start my summary, let me just very briefly state that Mr. Enjamio could not be here today due to some very serious medical issues, so I would -- as a colleague and a friend of mine for about 30 years, I would just like to convey Mr. Enjamio's regrets that he is unable to be here today. And as an aside, I have already conveyed my regrets to Mr. Enjamio that he couldn't be here today, but Mr. Enjamio's direct and rebuttal testimonies, which I adopt, can be summarized as follows:

The direct testimony presents the results of analyses that examined projected FPL system impacts of adding 20 solar photovoltaic facilities at 74.5 megawatts each on the program schedule versus not adding these solar facilities.

FPL utilized the same basic approach, which is a comparison of a resource plan with the specific solar facilities of interest versus a resource plan without those solar facilities that has been used for all of FPL's prior universal solar filings from 2016 on. And FPL also used forecast and assumptions consistent with those used in FPL's 2019 10-year site plan, the 2019 DSM goals and the 2020 SoBRA filings.

The results of the analyses were that the projected CPVRR cost savings were approximately

$150 million prior to accounting for about 11 million of program administrative costs, or a net of 139 million of system cost savings. In addition, there were significant savings in FPL's system air emissions and fossil fuel usage.

The rebuttal testimony presents results of new analyses based, in part, on a staff discovery request to account for the 2020 SoBRA sites and FPL's proposed DSM goals, and also based on an FPL decision to remove AFUDC from approximately 900 megawatts of the solar additions, as is discussed by the rebuttal testimony of FPL Witness Bores.

The result was that the projected CPVRR cost savings for the 20 solar facilities increased by approximately 110 million to 260 million prior to accounting for the program admin costs, or a net of 249 million after accounting for the program admin costs.

In addition, results from analyses of nine different scenarios of fuel cost and CO2 compliance cost forecasts were presented, which show that the 20 new solar facilities was projected to result in system CPVRR savings in at least seven of the nine scenarios.

The rebuttal testimony also rebuts several inaccurate statements or claims made by intervenor

witnesses, including the follow two by OPC's witness.

The witness incorrectly postulated that these solar facilities are not needed to address near-term FPL resource needs. However, these solar facilities fully address FPL's system resource needs for the years 2020, 2021 and 2022, plus meet most of FPL's resource needs in 2023.

OPC's witness also contended that the primary focus should be only on scenarios featuring low and medium cost assumptions for natural gas and CO2 compliance. But the rebuttal testimony correctly points out that high cost for either/or both of these factors are certainly possible, and therefore, scenarios including the high cost for these factors should be considered with equal weight.

And that concludes my summaries for the two testimonies. Thank you.

CHAIRMAN CLARK: Thank you.

MR. COX: Chairman Clark, the -- Dr. Sim is tendered for cross-examination.

CHAIRMAN CLARK: Thank you very much.

Mr. Rehwinkel.

MR. REHWINKEL: Thank you, Mr. Chairman.

CROSS EXAMINATION

BY MR. REHWINKEL:

Q And good evening, Dr. Sim.

A Good evening, sir.

Q It's nice to finally meet you face-to-face this way here.

A Likewise.

Q And you sound -- you sound like you are over your cold that you had when we talked earlier.

A For the most part. Thank you.

Q Dr. Sim, were you here earlier today when Dr. -- when Mr. Valle testified?

A During most of it, yes.

Q Okay. Could I get you to turn to your rebuttal testimony in Exhibit JE-10, please?

A I am there.

Q Okay. Thank you.

Do you see in the -- well, out to the right of that table, it says base scenario, and just to the left of the word base, there is the $112 million benefit number?

A Yes.

Q Okay. The brackets around it it means it's a savings, is that right?

A I am sorry, it means?

Q It's a savings.

A Yes. Negative numbers indicate a savings.

Q Okay. Is this the same $112 million that Mr. Valle was referring to in the dialogue we had about the non-participants' benefits?

A I believe it was, yes.

Q Okay. Do you recall that he testified that FPL is assigning these $112 million of projected net savings from SolarTogether program to non-participating customers?

A That was not my recollection. This goes to the -- as labeled in this table, it goes to the general body of customers, which includes both participants and non-participants.

Q Fair. So with that caveat -- with that clarification, it is all customers, including non-participants and participants?

A Yes.

Q Okay. But from that $112 million where the non-participants derive their benefits from the program, is that right?

A Monetary benefits, yes.

Q Okay. Do you recall the discussion that we had where he stated -- or he testified that approximately $56 million of that $112 million is not at risk of being -- of not being received by non-participating customers?

A I don't recall that exchange.

Q Okay. Is -- do you understand that there is $56 million of this $112 million that non-participants, or the general body of customers, are expected to receive or are guaranteed to receive regardless of how commodity prices turnout?

A Excuse me. I think that discussion would be one that would involve clauses in base rates. And that was not part of the analysis done by the resource planning group. I think Mr. Bores would be a better one to follow up with those type of questions.

Q Okay. Well, let's look at JE-10. And do you agree that this exhibit shows the projected net savings for nonparticipating customers?

A Again, general body of customers, which are participants and non-participants.

Q Okay. So the -- when we -- when I first referred you to the $112 million, it is included in your table labeled mid fuel cost/mid CO2, and that's the base -- that's the base case upon which this SolarTogether program economics are based on?

A It's labeled as base scenario, yes. It's one of nine different scenarios.

Q Okay. Do you know whether this $112 million would include the $56 million that Mr. Valle referred

to?

A Again, I am not familiar with the characterization of the 56 million. I would refer you to Witness Bores.

Q Okay. Let's go below into the bottom third of this table to the low fuel cost/low CO2 scenario. And do you see there is $145 million cost, it's a positive number there, is that is that right, for the non-parts -- for the general body of customers?

A Yes, sir. That's what it says.

Q I think I will pursue that with Mr. Bores.

Let's go to your -- let's go to your -- your September 23rd testimony, and I just want to make sure -- actually, let's -- I apologize. Let's go to your direct testimony.

A Okay. I am there.

Q I guess I need to get there, too.

So on page two of your testimony -- well, let me ask you this -- I will try to shortcut this.

In this testimony, and we talked about this in your deposition, the word need or needs is used throughout this testimony in various contexts; is that correct?

A That's correct, through all three of the testimony -- the two I am discussing at the moment.

Q Okay. But for the direct testimony, would it be fair to say that you do not use need in any context that is akin to the -- the need that represents a desire or demand or interest in customers, but instead, relates to either reliability need or a need related to providing electricity to customers' homes?

A Well, I haven't gone back through the testimony and identified everywhere the word need was used, but subject to check, I would think in the direct testimony, at least the bulk of the reference to need is referring to system reliability resource needs.

Q Okay. If I asked you the same questions in your rebuttal testimony rela-- that was filed on September 23rd, would that generally be the same?

A Again, I would have to go back to accurately or confidently answer your question and look everywhere where the word need was -- was used.

Q Okay. Well, let's just go to page two.

A This is of rebuttal testimony?

Q Yes, sir. Yes.

A Okay. I am there.

Q We look on line 10. It refers to JE-5, and it says need without new generation revenues. And if we look at JE-5, would it be fair to say that the reference to the -- to the word need on page two and on JE-5 are

the reliability type of need?

A Resource need slash reliability needs, yes.

Q Okay. And then if we go over to page three on line 11, 12 and 15 -- well, actually, we see on line one, four, 11, 12 and 15, do you see the references to need?

A Yes. I believe all of those references are reliability slash resource needs.

Q Okay. And then if we go to page six, line 22, is that a reliability need?

A Yes.

Q And then we turn the page to page seven, line seven, the word need there is the reliability context?

A Both -- I would say that one is both reliability and economics.

Q Okay. What do you mean by economics?

A Well, in this one, we allowed solar to be chosen in the early years, in the -- in the plan with SolarTogether. And there was a -- there is a resource need in that year, which in the no SolarTogether plan was met by 300 megawatts of batteries. Solar bumped the batteries meeting the resource need, but it bumped it due to economics.

Q Okay. But this isn't a need that's related to -- or it's not in the context of a customer desire,

interest or want?

A Correct.

Q Okay. And then if we go over to -- well, I think that's -- so -- okay. That's -- I just wanted to understand the context. So with these two pieces of testimony, it doesn't appear that need is in the context of this new definition of what need is that FPL is proposing, which is based on customer desire, interest or want?

A I would say in general, the testimonies that I am adopting are discussing reliability slash resource needs because that's what resource planners typically look at.

The customer demand for this program is something that upon which the SolarTogether program was based, and it is more frequently referenced for certain in Mr. Valle's testimony.

Q Okay.

MR. REHWINKEL: Mr. Chairman, if I could have just a second --

CHAIRMAN CLARK: Yes, sir.

MR. REHWINKEL: -- to see if I can either eliminate or get some clarification.

CHAIRMAN CLARK: Sure.

MR. REHWINKEL: I think at this point, we can

conclude our --

CHAIRMAN CLARK: Okay.

MR. REHWINKEL: -- questions to Dr. Sim for today.

CHAIRMAN CLARK: Thank you very much.

Ms. Putnal -- or Mr. Moyle. I am sorry.

MR. MOYLE: I think -- I think I am up next. It's past your six o'clock cut time, so my preference would be --

CHAIRMAN CLARK: Thank you.

MR. MOYLE: -- to take it up in the morning.

CHAIRMAN CLARK: Thank you.

All right. Staff, how long do you think your line of questions is going to last?

MS. SIMMONS: I am going to go with 15 to 20 minutes, but I can talk pretty fast, so --

CHAIRMAN CLARK: Talk fast. We will try to get Dr. Sim off the stand this afternoon.

MS. SIMMONS: Yes, sir.

MR. MOYLE: Well, I have some questions for him.

CHAIRMAN CLARK: Oh, I am sorry. I thought you passed.

MR. MOYLE: No. No. I was -- I was -- I was lobbying to try to have the gavel come down and

say, we will see you in the morning.

CHAIRMAN CLARK: You have got a few. How long do you think?

MR. MOYLE: You know, it somewhat depends on the answers. I'm --

CHAIRMAN CLARK: Let's call it a day. We are -- we are at a very good stopping point. It's a long ride to Chipley. Anybody want to go?

We will call recess this afternoon. We will reconvene tomorrow morning at 9:30 a.m.

Thank you.

(Transcript continues in sequence in Volume 2.)

CERTIFICATE OF REPORTER

STATE OF FLORIDA)
COUNTY OF LEON)

I, DEBRA KRICK, Court Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED this 17th day of January, 2020.

DEBRA R. KRICK
NOTARY PUBLIC
COMMISSION #GG015952
EXPIRES JULY 27, 2020