



September 3, 2019

VIA ELECTRONIC FILING

Adam J. Teitzman
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd
Tallahassee, Florida 32399-0850

Re: Docket No. 20190061-EI; In re: Petition by Florida Power and Light Company for Approval of FPL SolarTogether Program and Tariff

Dear Mr Teitzman,

On behalf of Intervenor, Southern Alliance for Clean Energy, I have enclosed the testimony and exhibit of Bryan A. Jacob. Please file these documents in Docket No. 20190061. Please contact me with any questions regarding this filing.

Sincerely,

/s/ George Cavros
George Cavros
Southern Alliance for Clean Energy
120 E. Oakland Park Blvd., Suite 105
Fort Lauderdale, FL 33334
Florida Bar No. 0022405
(954) 295-5714

*Counsel for Petitioner
Southern Alliance for Clean Energy*

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy and correct copy of the foregoing was served on this 3rd day of September, 2019 via electronic mail on:

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DATED this 3rd day of September, 2019

/s/ George Cavros
Attorney

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of FPL)
SolarTogether program and tariff,) DOCKET NO. 20190061-EI
by Florida Power and Light)
Company.

DIRECT TESTIMONY OF BRYAN A. JACOB
ON BEHALF OF
SOUTHERN ALLIANCE FOR CLEAN ENERGY

SEPTEMBER 3, 2019

1 **Q. Please state your name, position and business address.**

2 A. My name is Bryan A. Jacob. My role is Solar Program Director for Southern Alliance for
3 Clean Energy (“SACE”). My business address is 691 John Wesley Dobbs Ave., Atlanta,
4 Georgia, 30312.

5
6 **Q. On whose behalf are you testifying in this proceeding?**

7 A. I am testifying on behalf of SACE.

8
9 **Q. Please summarize your qualifications and work experience.**

10 A. I graduated from Georgia Institute of Technology in 1993 with a Bachelor of Civil
11 Engineering. From 1993-2015, I coordinated and led environmental programs for The
12 Coca-Cola Company, including development of a system-wide climate protection
13 strategy. The strategy I led incorporated both demand side energy efficiency as well as
14 supply side renewable energy. In 2015, I launched Climate Coach International, LLC, to
15 help organizations understand climate-related risks and opportunities, then design and
16 implement practical (and cost-effective) climate mitigation and adaptation strategies. I
17 joined SACE in 2017 to lead the Solar Program efforts across seven Southeastern states.
18 My program responsibilities range from conducting research on solar power trends to
19 advocacy on utility resource planning, and specifically include collaboration with
20 stakeholders in the solar energy development industry.

21 I am the lead author on the SACE *Solar in the Southeast Annual Report* which provides
22 an equitable, unbiased comparison of various-sized utilities ranked by *watts per customer*

1 (W/C) of solar power. Community and/or shared solar programs have become more
2 common in our database that underpins the SACE reporting efforts. I have reviewed
3 multiple community/shared solar program designs in Florida as well as across the
4 Southeast region and have shared my community solar program experience via SACE
5 communication channels (cleanenergy.org blog) as well as at conferences (for example,
6 the 2018 Alabama Solar Industry Association Conference).

7
8 **Q. Have you previously testified before the Florida Public Service Commission (“the**
9 **Commission”)?**

10 A. No. This is my first time testifying before the Commission, though I previously filed
11 comment letters in this docket (letter dated June 26, 2019) as well as the docket for a
12 shared solar proposal from Tampa Electric (Docket No. 20180204-EI, letter dated March
13 20, 2019). I also testified recently before the Georgia Public Service Commission in the
14 Georgia Power Integrated Resource Plan, Docket Nos. 42310 and 42311

15
16 **Q. What is the purpose of your testimony?**

17 A. The purpose of my testimony is to compare and/or contrast FPL’s proposed
18 SolarTogether program with established best practice criteria. This comparison will help
19 inform the Commission on the suitability of the proposed program design and where
20 enhancements may be warranted in this and/or future program expansions.

1 **Q. Are you submitting exhibits along with your testimony?**

2 A. Yes, I am submitting one (1) exhibit with my testimony, as follows:

3 • BAJ-1 Resume of Bryan A. Jacob.

4 **Q. What is the role of SACE in this proceeding?**

5 A. SACE's mission is to promote responsible energy choices to ensure clean, safe, and
6 healthy communities throughout the Southeast, including Florida. As part of this mission,
7 SACE supports and advocates for the meaningful development of low cost, clean solar
8 power, including community solar programs.

9 The proposed FPL SolarTogether program will be the largest shared solar program in the
10 United States totaling 1,490 megawatts (MW) in Phase 1 This represents an enormous
11 clean energy opportunity for many of the state's electricity customers, including
12 customers who are SACE members. Shared, or community, solar programs play an
13 important role in extending the economic and environmental benefits of solar power to
14 customers who may not be able to directly take advantage of rooftop solar power.
15 Therefore, a successfully designed community solar program, one which maximizes
16 economic benefit to customers, will advance the adoption of low-cost, clean solar power
17 and is consistent with SACE's mission, and that of its members.

18 **Q. Have you evaluated the FPL SolarTogether proposal?**

19 A. Yes.

20

21 **Q. What criteria did you use for this evaluation?**

22 A. There is no single set of criteria that can comprehensively prescribe a perfect program
23 design. FPL referenced various reports including the *Community Solar Policy Decision*

1 *Matrix* published by the Coalition for Community Solar Access (CCSA) in 2017 and
2 *Community Solar Program Design Models* from the Smart Electric Power Alliance
3 (SEPA) in 2018¹ as well as the 2018 National Renewable Energy Lab (NREL) study,
4 *Focusing the Sun. State Considerations for Designing Community Solar Policy.*²

5 For my evaluation, I compared the FPL SolarTogether proposal with criteria established
6 in *A Checklist for Voluntary Utility-Led Community Solar Programs* published by
7 VoteSolar and the Interstate Renewable Energy Council (“IREC”) in November 2018.³

8 These seven criteria include: (#1) expanding consumer access to clean energy; (#2)
9 offering a tangible economic benefit for all participating customers, (#3) identifying ways
10 to promote cost savings; (#4) prioritizing the customer experience; (#5) promoting
11 competition; (#6) optimizing community solar to benefit the grid and the community; and
12 (#7) complementing existing programs.

13
14 **Q. What conclusions did you reach after applying the criteria to the SolarTogether**
15 **program?**

16 A. The SolarTogether program will expand access to clean energy Both utility scale and
17 rooftop solar continue to grow in Florida. Yet, a number of customers can’t directly take
18 advantage of rooftop solar power They may lease their homes, live in multi-tenant
19 dwellings, have roofs that can’t host a solar system or have too much shade, or
20 experience other mitigating factors. Shared (or community) solar programs are intended
21 to provide access and choice to the economic and environmental benefits of solar power
22 for those customers.

1 In Phase 1, FPL plans to add 20 new solar energy centers between 2020 and 2021,
2 totaling 1,490 MW_{AC}.⁴ The SolarTogether program is designed to serve 74,500
3 residential customers assuming the customers subscribe at 100% of an assumed 1,000
4 kWh monthly energy usage.⁵ This amounts to approximately 1.5% of FPL retail
5 customers), in addition to commercial customers. For comparison, the Tampa Electric
6 Shared Solar program (SSR-1) approved by this Commission in Commission Order PSC
7 No. 2019-0215-TRF-EI will generate enough energy for approximately 2,600 residential
8 customers at the 100 percent subscription level.⁶ That represents approximately 0.3% of
9 Tampa Electric's retail customers. Therefore, Phase 1 of the SolarTogether program
10 meets more customer demand than the Tampa Electric program and other programs the
11 Commission has previously approved. Phase 1 Program capacity, allocated for
12 commercial, industrial and governmental customers aligns with the level of capacity
13 reserved during preregistration. Many of these large customers have clean energy and/or
14 sustainability goals and have expressed significant demand for this program. Therefore,
15 Phase 1 of the SolarTogether program, and subsequent phases, will expand customer
16 access to clean energy

17
18 The proposed SolarTogether program offers tangible economic benefit directly to
19 participating customers. The subscription rate for Phase 1 is established as \$6.76 per
20 kilowatt (kW). Participants will receive a bill credit based on the generation in kilowatt-
21 hours (kWh) from their subscribed capacity For FPL SolarTogether Phase 1, the Benefit
22 Rate starts at 3.42881 cents per kilowatt hour and will escalate at 1.45 percent annually
23 The program is designed to allow participants to achieve simple payback between years

1 5-7 of program participation after which time, an increasing net benefit continues to
2 accrue to the participant. Therefore, the program provides a more significant and more
3 certain benefit to participants than other shared solar programs that the Commission has
4 previously approved.⁷ Given that the benefit does not accrue immediately to participants,
5 the program would be enhanced with a low-to-moderate income (LMI) customer
6 component.

7
8 The 74.5 MW capacity of each project and the twenty proposed solar installations
9 leverage economies of scale that promote development cost savings. The Company, for
10 example, appears to have gone through a rigorous Request For Proposal (RFP) process. It
11 indicates that more than 98% of the construction costs are the result of competitive RFP
12 solicitations.⁸

13 FPL estimates the total construction cost of the Projects, including land, will be \$1 79
14 billion or \$1,202 per kW_{AC}. Costs may vary either upward or downward on an individual
15 site basis, but FPL projects that the total cost will not exceed \$1 79 billion.⁹

16
17 The Company has prioritized the customer experience in the program design by
18 providing participants with transparent and flexible subscription terms. The program will
19 allow participation with no upfront subscription fees, allowing flexible subscription
20 amounts; no cancellation fees for leaving the program; and a portability feature that
21 allows the subscription to stay with customer if they move within the FPL service
22 territory. FPL states that participation is voluntary and customers can keep their
23 subscription as long as they remain an FPL customer. Participants may unsubscribe at

1 any time and are not committed to a long- term contract. Participants may also increase
2 their subscription level once a year based on availability and decrease their subscription
3 level at any time.¹⁰

4
5 Community/shared solar programs should complement existing programs. For example,
6 they should be “additive” and result in additional renewable energy resources on the
7 distribution grid rather than competing with existing programs. FPL’s SolarTogether
8 program complements existing programs as these are new solar facilities that will be built
9 for the purpose of serving participants in this program. Although, the Company has
10 committed to build Projects 1 and 2¹¹ even if the SolarTogether program is not approved
11 by the Commission, it states that it will re-evaluate the timing and amount of any
12 additional solar capacity in that circumstance.¹² FPL should continue to offer and
13 promote existing rooftop solar net metering options for customers preferring on-site self-
14 generation.

15
16 **Q. Have you previously used these criteria to evaluate other community solar program**
17 **designs?**

18 A. Yes. Earlier this year, I personally evaluated the shared solar proposal from Tampa
19 Electric, Docket No. 20180204-EI, using these same IREC criteria. Additionally, prior to
20 my joining SACE, another former member of SACE staff performed a similar evaluation
21 of Gulf Power’s proposed community solar pilot, Docket No. 20150248-EG That

1 assessment relied on a previous version of IREC criteria in *Model Rules for Shared*
2 *Renewable Energy Programs*, June 2013.

3
4 **Q. Please summarize SACE's evaluation of the FPL SolarTogether proposal.**

5 A. FPL has put forth a novel and significantly-sized investor-owned utility shared solar
6 program design that provides substantial system benefit and prioritizes the customer
7 experience. The FPL proposed SolarTogether program meets many of the best design
8 practice criteria for shared solar programs: (#1) expanding consumer access to clean
9 energy; (#2) offering a tangible economic benefit for all participating customers; (#3)
10 identifying ways to promote cost savings; (#4) prioritizing the customer experience; and
11 (#7) complementing existing programs. In my view, opportunities exist for further
12 alignment on criteria (#5) promoting competition and (#6) optimizing community solar to
13 benefit the grid and the community

14
15 **Q. Do you have specific recommendations for how FPL could improve the**
16 **SolarTogether program to further exhibit best practice design?**

17 A. Yes, I have three recommendations to offer

- 18 • Regarding promoting competition, FPL should continue to pursue the most cost-
19 effective projects possible and ensure that they are competitively bidding out the
20 construction and panel procurement to a wide range of vendors to get the best pricing
21 and terms. FPL should examine whether competitive solicitation of solar power in

1 future phases of the program may offer an even more cost-effective way to offer solar
2 to customers.

- 3 • Regarding optimizing community solar to benefit the grid and the community, FPL
4 has indicated that residual area at four of the SolarTogether sites could be suitable for
5 energy storage. This would include Project 2, Site 2; Project 3, Site 6; Project 4, Sites
6 2 and 4.¹³ A recent report from the Institute for Energy Economics and Financial
7 Analysis documents substantial system value for utility-scale energy storage ranging
8 from firming intermittent renewable generation to contributing to system peak needs
9 as well as contributing to system resilience.¹⁴ FPL should pursue these opportunities
10 for optimizing the SolarTogether program to further benefit the grid and community
11 by incorporating energy storage at the appropriate sites.

- 12 • Some criteria, including those referenced by FPL¹⁵, incorporate considerations for
13 how to engage LMI participation. A specific design that facilitates participation by
14 LMI customers would be a desirable enhancement to the FPL proposal.
15 SolarTogether as currently designed has no goals for participation by LMI customers,
16 nor a mechanism by which to attract LMI customers. The Commission should
17 provide flexibility and encouragement for FPL to return to the Commission with an
18 LMI enhancement that could be incorporated into the program.

19
20 **Q. Does SACE support the proposed FPL SolarTogether program?**

- 21 A. Yes. NREL estimated that, as of July 2019, Community solar projects represent more
22 than 1.3 gigawatts alternating-current (GW-AC) of total installed capacity in the United
23 States. Phase 1 of the proposed FPL SolarTogether program will more than double the

1 current community solar capacity in the country. This represents an enormous clean
2 energy opportunity for roughly half of the state's electricity customers, offering them
3 more choices around their electric service. SACE supports Commission approval of this
4 program and respectfully requests the Commission consider the above recommendations
5 for enhancing the program.

6

7 **Q. Does this conclude your testimony?**

8 **A. Yes.**

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- ¹ Florida Power and Light, Response to OPC's Third Request for Production of Documents, Request No. 6
- ² Florida Power and Light, Response to Staff's 1st Data Request, No. 66.
- ³ Vote Solar and IREC, *A Checklist for Voluntary Utility-Led Community Solar Programs*, November 2018, at <https://irecusa.org/publications/checklist-for-voluntary-utility-led-community-solar-programs/>
- ⁴ Florida Power and Light, *Direct Testimony of Matthew Valle*, Docket Nos. 20190061-EI, p. 9, July 29, 2019
- ⁵ *Id.* at 17
- ⁶ Florida Public Service Commission, Order PSC No. 2019-0215-TRF-EI, Docket No. 2018-0204, June 3, 2019
- ⁷ See e.g. Florida Public Service Commission, Order PSC No. 2019-0215-TRF-EI, June 3, 2019; Florida Public Service Commission, Order No. PSC-2016-0119-TRF-EG, March 21, 2016; and Order No. PSC-2017-0451-AS-EU, November 20, 2017
- ⁸ Florida Power and Light, *Direct Testimony of William Brannen*, Docket No. 20190061-EI, p.10, July 29, 2019
- ⁹ *Id.*
- ¹⁰ Florida Power and Light, *Direct Testimony of Matthew Valle*, Docket No. 20190061-EI, p. 9, July 29, 2019
- ¹¹ Phase 1 of the SolarTogether program will consist of 5 distinct projects. See *Id.* at 19
- ¹² Florida Power and Light, Response to OPC's 5th Set of Interrogatories, No. 26.
- ¹³ Florida Power and Light, Response to Staff's 1st Data Request, Nos. 4-23.
- ¹⁴ Institute for Energy Economics and Financial Analysis, *Advances in Electricity Storage Suggest Rapid Disruption of U.S. Electricity Sector*, June 2019 at <http://ieefa.org/wp-content/uploads/2019/06/Advances-in-Electricity-Storage-Suggest-Potential-Rapid-Disruption-of-U.S.-Electricity-Sector-1-1.pdf>
- ¹⁵ Coalition for Community Solar Access (CCSA), *Community Solar Policy Decision Matrix*, December 2017 at <http://www.communitysolaraccess.org/wp-content/uploads/2017/12/Community-Solar-Policy-Decision-Matrix-2017.pdf>

BRYAN A. JACOB

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<https://www.linkedin.com/in/bryanjacob1>

An accomplished **climate change and environmental sustainability practitioner**, Bryan is the **Solar Program Director** for the **Southern Alliance for Clean Energy (SACE)**. This role includes a broad-spectrum of activities to promote solar power across the Southeast.

Prior to joining SACE, Bryan launched **Climate Coach International** to help organizations understand **climate-related risks and opportunities** then design and implement practical and cost-effective **climate mitigation and adaptation strategies**.

From 1993-2015, Bryan coordinated and managed environmental initiatives for **The Coca-Cola Company**. He was the architect of the Climate Protection Strategy that propelled The Coca-Cola Company to a leading position within the beverage industry and broader corporate sector.

PROFESSIONAL EXPERIENCE

SOUTHERN ALLIANCE FOR CLEAN ENERGY (SACE) **Solar Program Director**

Atlanta, GA
June 2017 - present

Bryan leads activities to promote solar power across the Southeast. These activities range from conducting research on solar power trends to advocacy on utility resource planning and specifically include collaboration with stakeholders in the solar energy development industry. Bryan serves as lead author on the SACE *Solar in the Southeast* Annual Report which provides an equitable, unbiased comparison of various-sized utilities ranked by watts per customer (W/C) of solar power.

CLIMATE COACH INTERNATIONAL, LLC **Founder/owner and "Chief Climate Coach"**

Alpharetta, GA
March 2015 - present

Bryan founded Climate Coach International to offer "bench strength" for climate leadership. *Mitigation, Adaptation, Engagement, and Advocacy are priorities for Climate Coach International.* Example projects include:

- Assessing the competitive landscape and constructing a climate maturity matrix to inform the leadership posture for an apparel client.
- Modeling emission reduction trajectories for a sportswear client using various Science-Based Target-setting methodologies.
- Developing a corporate engagement platform on Energy Productivity for an environmental NGO.
- Curriculum development and instruction on the Food-Water-Energy Nexus for an academic client.

THE COCA-COLA COMPANY

see Position History below

Atlanta, GA

April 1993 – March 2015

- Created and administered a Climate Protection Strategy that propelled The Coca-Cola Company to a leading position within the beverage industry and broader corporate sector.
- Pioneered the Company's signature "eKOfreshment" program on HFC-free Refrigeration with direct accountability for program scale-up to 100,000 deployments (2008-2010).
- Institutionalized energy consumption standards for cold drink equipment, achieving a 40% improvement in energy-efficiency of coolers and vending machines, saving customers an estimated \$440 million per year and delivering corresponding emissions reductions of approximately 3.1 million metric tons/year
- Promoted comprehensive energy conservation and clean energy programs that improved energy-efficiency 20%, delivered a cumulative energy cost avoidance of over \$1 billion since 2004 and reduced greenhouse gas emissions by more than 1 million metric tons/yr
- Designed and coordinated representation at the annual U.N. Climate Conferences since 2009 (COP15/Copenhagen) where I organized a spectacular keynote address from our Chairman and CEO, Muhtar Kent. I also arranged for this to mark the first launch of our PlantBottle™ innovation.
- Represented the Company as spokesperson on climate protection topics; examples range from briefing the U.S. House of Representatives Committee of Science and Technology about HFC-free Refrigeration to a live television interview at The Weather Channel to promote Earth Hour
- Cultivated productive relationships with environmental stakeholders – particularly WWF (World Wildlife Fund) as partners in their ambitious Climate Savers program and Greenpeace who we collaborated with in promoting natural refrigeration.
- Co-chaired a cross-functional, pan-geographic team to establish an end-to-end, value chain target to reduce the carbon footprint of the 'drink in your hand' 25% by 2020.
- Recruited and trained/oriented/commissioned 29 "Climate Ambassadors" from across the global System to champion the new 'drink in your hand' carbon footprint commitment.
- Partnered with ACCO (Association of Climate Change Officers) to design the Future Climate Change Officer Fellowship and hired a candidate from the inaugural class.
- Collaborated with Coca-Cola Enterprises (now Coca-Cola Refreshments) to "jump start" deployment of hybrid-electric trucks; now more than 850 in the United States.
- Developed/managed annual greenhouse gas inventory complete with third-party verification/assurance and assembled annual reports to CDP, Carbon Disclosure Project.
- Commissioned an assessment of climate risks and opportunities including preparation of Risk Factor disclosure in the SEC 10-K filing (the first beverage company to do so).
- Created an Environmental, Occupational Safety & Health (EOSH) Portal for associates to access key materials then managed bi-monthly Positive Currents newsletter (2010-2011).
- Established a program to offset carbon emissions from corporate aviation.
- Administered annual budgets up to \$1.3 million; managed small teams of direct reports.

Position History at The Coca-Cola Company

Director, Climate Protection	August 2011 – March 2015
Manager, Energy Efficiency & Climate Protection	January 2006 – August 2011
Environmental Technologies Manager	June 1999 – December 2005
Environmental Programs Manager	February 1997 – June 1999
Environmental Programs Coordinator	April 1993 – February 1997

Prior Work Experience

ANHEUSER-BUSCH, INC	Atlanta, GA
Olympic Job Opportunities Program (OJOP) Athlete	January 1992 – September 1992
JORDAN, JONES & GOULDING	Atlanta, GA
Technician II (Co-Op Student)	December 1987 – August 1991

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY	Atlanta, GA
Bachelor of Civil Engineering (BCE), <i>summa cum laude</i>	1993

ADDITIONAL INFORMATION

Two-time U.S.A. OLYMPIAN Weightlifting	1992 Barcelona & 1996 Atlanta
THE CLIMATE (REALITY) PROJECT	January 2007
Trained and delivered the slides that became “An Inconvenient Truth”	
SOLAR LIGHT FOR AFRICA	2008 - present
Board of Directors	
SCIENCE BASED TARGETS (WRI/WWF/CDP)	2014-present
Technical Advisory Group	