

MINUTES FROM THE SOLAR WORKSHOP
THE UTILITY BOARD OF THE CITY OF KEY WEST, FLORIDA,
WEDNESDAY, SEPTEMBER 21, 2022 - 3:00 P.M.
KEYS ENERGY SERVICES BOARD ROOM
1001 JAMES STREET, KEY WEST, FLORIDA

The above referenced workshop of the Utility Board of the City of Key West, Florida, convened at 3:00 P.M., on the above date and was called to order by Utility Board Chair Ms. Mona Clark.

Utility Board Members Present

Timothy Root, Utility Board Chair
Steve Wells, Utility Board Vice Chair
Mona Clark, Member
Robert Barrios, Member
Pat Labrada, Member

Staff Present

Lynne Tejeda, General Manager/CEO
Dan Sabino, Director Engineering/Control Center & Asst GM
Nick Batty, Director of Legal & Regulatory Services
Edee Delph, Executive Assistant to GM/CEO & UB
Erica Zarate, Director Customer Services
Michelle Adam, Asst. Director of Information Services
Hugo Valdez, Supervisor of Meter Services
Jeanette Williams, Supervisor of Accounting & Financial Analysis
Kate Lansdown, Accounting & Financial Analyst
Michael Wedincamp, Communications Coordinator

Others Present

Jacob Williams, FMPA General Manager and CEO
Dan O'Hagan, FMPA Asst General Counsel and Regulatory Compliance Counsel
Susan Schumann, FMPA Manager of External Affairs and Solar Projects
Paul Brunfelt, FMPA Generation Project Engineer
Joelle Deese, City of Key West Adaptation and Energy Coordinator
Alison Higgins, City of Key West Sustainability Coordinator

Mrs. Tejeda stated that today's workshop is to provide and discuss net metering, determine next increment utility scale, and determine if KEYS should offer a customer subscription program.

Agenda Item 2 - Discuss Net Metering

Mr. O'Hagan explained how net metering process works by stating the following: Solar panels convert energy from the sun to electricity. The solar panels are wired to an inverter. The electrical current flows from the inverter thru an output meter which measures the total electrical output of the solar system. The current then flows into the house. A single

bi-directional meter measures the amount of electricity that is coming from the grid to supply power from KEYS to the home. If at any time the solar system produces more energy than is being used, that excess power flows into the grid and is purchased by KEYS. If the customer is using more power than the system produces, the customer will purchase the difference from KEYS like every other customer.

Mr. O'Hagan said that Florida law requires Investor-Owned Utilities (IOU's) net metering rates, terms and conditions to be set by the Florida Statutes/Public Service Commission, while Municipal electric utilities determine their own net metering rates, terms, and conditions.

Mr. O'Hagan informed the Board that within the All-Requirements Project (ARP) Contract, there is a FMPA net metering policy that states:

- "FMPA agrees to sell and deliver, and project participant agrees to purchase and receive...all electric capacity and energy...which project participant shall require for the operation of its municipal electric system..."
- ARP member cannot directly purchase electricity from anyone other than FMPA – including its own customers
- ARP policy does not dictate the rate that individual members pay their net metering customers
- "3.03. ARP participant may, in its sole discretion and at its sole cost and expense, offer its net metering customers a renewable production incentive for excess kilowatt hours generated by the customer-owned renewable generation and delivered to ARP participant's electric distribution system."

Mrs. Zarate briefly reviewed the history of KEYS net metering program and the different methodologies used to calculate the credit paid for excess solar generation sent back to the grid since inception of the program.

Mrs. Zarate stated that KEYS first implemented the net metering program as a pilot program back in 2008 and formally created the Net Metering tariff and program parameters to incentivize customers to install solar about a year later. The pilot program allowed the first 75 residential or small commercial customers installing a Tier 1 renewable generation system of 10kW or less to receive full retail credit for excess generation sold back to the grid.

Mrs. Zarate said that in February 2017, the Utility Board updated the existing net metering tariff in order to try and minimize non solar customers from subsidizing solar customers. As of October 1, 2017, all new net metering customers would receive the avoided cost rate for excess generation and all existing net metering customers were grandfathered in and will continue to receive the full retail rate until February 1, 2037. Currently, KEYS has 28 grandfathered customers.

Mrs. Zarate stated that in June 2020, the Board had a workshop to review the various methodologies used to purchase excess energy from net metering customers and in August 2020 approved utilizing the greater of the Solar Proxy Unit Rate which is based on the kWh cost of solar energy purchased from FMPA or the Energy Rate. The Board approved the change, to pay customers the same rate they were paying FMPA for utility scale solar. She said two years later the surcharge is a credit due to the current high energy cost. KEYS has

been using the methodology for the past two years and agrees it is the best approach to fairly compensate net metering customers while protecting non solar customers from subsidizing them.

Mrs. Zarate informed the Board that KEYS has about 100 net metering customers with a majority being residential and falling in the Tier 1 classification which are renewable generation systems less than 10 kw. In addition to interconnected customers, KEYS has a 75 kW rooftop solar system installed on the Ralph Garcia Building in Stock Island and a 2.4 kW wind turbine located at the Cudjoe key substation. KEYS has also partnered with NOAA Eco-Discovery Center and FMPA for the 25.5 kW peel and stick roof top solar system installed at NOAA's facility downtown. Lastly, KEYS donated solar panels for the Key West City Hall 60 kW solar system that is installed on their parking structure.

Mrs. Zarate stated that KEYS has had a gradual increase in the number of customers and the excess solar generation produced by interconnected solar systems since 2008 and a 32% increase in the number of net metering customers from Fiscal year 2021 thru July 2022, with those 100 customers selling over 305,000 kWh of excess solar generation back to the grid.

Mrs. Zarate said within the next year KEYS anticipates another 523 net metering accounts with the addition of the Southeast Housing rooftop solar project which is currently under way and are actively installing solar systems on units located on Sigsbee and Trumbo.

Mrs. Tejeda stated that staff is not proposing any changes to the current net metering processes and staff believes KEYS has a program that fairly compensates net metering customers at the same time protecting all rate payers from the potential of subsidization.

Agenda Item 3 - Discuss Utility-Scale Solar Power

Mrs. Schumann provided the Board with an overview on the FMPA Florida Municipal Solar Project (FMSP) stating the following:

- Joint solar project of 16 Florida municipal electric utilities
- Two solar sites online totaling 149 MW
- Enough to power 30,000 homes
- Phase II in 2023-2024
- Phase III in 2025
- Large-scale solar more cost effective
 - Compared to community or rooftop installations
 - Several cities offering solar subscriptions to retail customers

Mrs. Schumann reviewed Phases I and II of FMSP:

Phase I – 149 Megawatts

- Harmony in Osceola County, Taylor Creek in Orange County
- Came online in June 2020
- PPA with Florida Renewable Partners – executed in 2018
- Poinsett redirected to TBD site in Phase III

Phase II – 149 Megawatts

- Rice Creek in Putnam County, Whistling Duck in Alachua County
- PPA with Origis Energy – executed in 2019
- Commercial delivery in December 2023 and November 2024

Mr. Williams said by 2025 there should be three to five solar site (up to 375 MW). He said member cities will approve prior to FMPA Board and the execution of agreements is anticipated by early 2023.

Mr. Williams stated that there will be solar sites in four different Counties to spread out the direct sunlight. There will also be options for co-located battery storage, including potential future installation, which FMPA asking for member cities commitment by November 1, 2022.

Vice Chair Wells asked if there has been supply chain issues with the project. Mr. Williams said that supply chain has been an issue for Phase II but no issues anticipated for Phase III.

KEYS participation dates and action taken in FMSP were reviewed:

- April 2017 - Board set goals to add solar energy to utility portfolio: 5 MW immediately, 10 MW by 2022.
- November 2017 - Committed to 5 MW from Phase I.
- January 2019 - Committed to 25 MW from Phase II.
- June 2020 - Began receiving 3.49 MW from Harmony solar site
- August 2022 - Learned 1.51 MW from Poinsett will be redirected to Phase III site
- November 2022 - Phase III commitment due to FMPA
- December 2023 - Scheduled to receive 12.5 MW from Rice Creek solar site
- Summer 2024 - Scheduled to receive 12.5 MW Whistling Duck solar site
- End of 2025 - Scheduled delivery of solar energy from Phase III

Mrs. Tejada provided the Board with several examples of establishing solar energy goals for capacity of solar with a time frame and percentage of sales goals.

After discussion the consensus of the Board was to commit to an additional 20 MW of solar which would bring the total commitment to 50 MW (approximately 17% of sales). The Board previously committed to 5 MW in 2017 for Phase I and committed to 25 MW in 2019 for Phase II.

Agenda Item 4 – Discuss Solar Subscriptions

Mrs. Tejada informed the Board that solar subscriptions allow any customer, not just property owners, to subscribe to the renewable attributes of KEYS solar MWs and customers select how much solar power they want with a rate implication.

Mrs. Tejada said solar subscription requires tariff design and program implementation steps to include billing mechanics, as well as filing with Florida Public Service Commission.

Mrs. Tejada provided several reasons customers would be interested in a solar program:

- Utility Scale Solar is less costly than Roof-Top Solar
- Avoids Up-Front, Capital Costs
- Allows Customer to “claim” green status including LEED Certification
- Provides Flexibility
 - Can move with customer from property to property
 - Can opt out if no longer interested

Mrs. Tejada provided the Board with different structures for a solar subscription program:

Voluntary Premium Solar Subscription

- Customer subscribes for blocks of power or percentage of total bill or even a flat fee
 - 500 kWh, 1000 kWh or more
 - 25%, 50%, 75% or 100%
- KEYS charges flat rate or percentage premium for every kWh
- Energy not tied directly to solar project
- Unlikely to qualify for LEED and equivalent certifications
- Funds collected go to advance green energy programs:
 - Solar
 - Wind
 - Battery
 - EVs
 - Energy Efficiency Programs
 - Education
- FPL offers similar program “SolarNow”

Simple Solar Subscription

- Customer subscribes for percentage
 - 25%, 50%, 75% or 100%
- KEYS charges/credits difference of cost of solar compared to KEYS general energy charge per kWh (with small administrative cost)
- Can provide solar attributes that qualify for LEED (and other) certification
- Solar currently less than energy charge
 - Could be oversubscribed
 - How do you select who joins now?
- Not realistic relative to actual physical power delivery to customer
 - Solar isn’t available 100% of the time
 - Does not directly capture resources needed to power during non-solar hours*
- Currently offered by KUA and Ocala

Solar Plus Resources Subscription

- Customer Subscribes for Percentage
 - 25%, 50%, 75% or 100%
- KEYS offers charge/credit based on difference of cost of solar (calculated considering solar, fast ramping resources and average resources, or battery storage) compared to KEYS energy general charge per kWh
- Can provide solar attributes that qualify for LEED (and other) certification
- Considers when sun isn’t shining – generation or battery storage would be required
- More likely to be a charge and rarely a credit
- Many variables in calculation
- More difficult to explain

Capacity Solar Subscription

- Customer Subscribes for Capacity
 - 5 kW, 10 kW, 100 kW, 1000 kW or more
- Pricing:
 - KEYS charges monthly, flat rate, subscription charge per kW
 - KEYS credits customer with value of kWh produced by customer’s subscribed kW
- Most like rooftop solar
- Can provide solar attributes that qualify for LEED (and other) certification
- Currently offered by FPL

Mrs. Tejeda explained the solar subscription process:

- Program Parameters Determination
- Financial Analysis & Rate Calculation
- Billing System Implementation Review
- Terms and Conditions & Tariff Approval
- Marketing & Program Roll-Out

After discussion the consensus of the Board was to go with Capacity Solar Subscription but to poll other governmental agencies and see what they are doing and then come back to Board with an update prior to moving forward.

Agenda Item 5 - Public Input

Ms. Alison Higgins from City of Key West thanked that Board for today’s presentation and requested a copy of the presentation so she could discuss with her peers. She informed the Board that the City of Key West would like resiliency on the island when there is loss of power from the grid. She also talked about conducting a solar interest survey.

(Power point presentation is available upon request)

ADJOURNMENT

Motion to adjourn the Utility Board Solar Workshop of Wednesday, September 21, 2022, at 4:56 p.m. Moved by Vice Chair Mr. Steve Wells.

APPROVE:

Timothy Root, Utility Board Chair

ATTEST:

Lynne E. Tejeda, General Manager/CEO & Secretary

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