

MEMORANDUM

To: Director of Utilities

THROUGH: Director of Electric & Gas Systems *9at* *[Signature]*

FROM: Job Planning Engineer

DATE: July 21, 2008

SUBJECT: PURPA Standards 11 (Net Metering), 12 (Fuel Sources) and 13 (Fossil Fuel Generation Efficiency)

RECOMMENDATION:

Hold public hearings on standards at 8/5 Board Meeting. Pending results of public hearings approve staff position on the three PURPA Standards.

SUMMARY/SUPPORTING INFORMATION:

The Energy Policy Act of 2005 (EPact 2005), enacted August 8, 2005, contains in Subtitle E, amendments to the Public Utility Regulatory Policies Act (PURPA) 5 new standards that must be considered for implementation by all electric utilities with retail sales greater than 500 million kilowatt hours.

The requirements of EPact 2005 do not mandate that the affected electric utilities implement these new standards. Instead PURPA states that "each regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each non-regulated utility shall consider each standard and then "make a determination concerning whether or not it is appropriate to implement such standard". PURPA further states that "nothing in this subsection (111(a)) prohibits any state regulatory authority or non-regulated electric utility from making any determination that it is not appropriate to implement any such standard.

The first standard to be considered is #11-Net metering. Net metering is an electric policy for consumers who own, generally small, renewable energy facilities, such as wind or solar power. Section 1251 of the EPact 2005 states:

“(11) NET METERING.-Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves. For purposes of this paragraph, the term “net metering service” means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.

The Florida Public Service Commission (PSC) has adopted a rule requiring investor-owned utilities (IOUs) to allow interconnection and net metering of customer-owned renewable generation. Although the rule generally applies only to IOUs, it requires municipal electric utilities to file a standard interconnection agreement for customer-owned renewable generation, and to report certain information relating to interconnected customers. In addition, PSC staff has indicated that they expect municipal electric utilities to substantially comply with the IOU rule, and will seek additional information from those utilities that deviate. This, combined with other political pressures, creates a need for FPUA to adopt some standard for interconnection of customer-owned renewable generation. On March 4, 2008, Florida Municipal Power Agency (FMPA) staff held a workshop with All Requirements Project (ARP) Participants, including FPUA, to discuss net metering and demand-side management issues. Pursuant to the PSC rule, net metering requires a utility to allow customers to use its on-site renewable generation to offset the customers' electric needs. At any given time that a customer generates more than the customer requires to meet its own load, excess electricity flows onto the utility's distribution system and is credited at the utility's retail rate.

FMPA staff has proposed a tri-party arrangement whereby each ARP Participant, including FPUA, may allow interconnection of customer-owned renewable generation to its distribution system, and any electricity produced by customer-owned generation that is sent onto the ARP Participant's electric grid will be “purchased” by FMPA at FMPA's avoided cost. If an individual ARP Participant wishes to further incentivize customers beyond FMPA's avoided cost by adding an incentive payment to promote renewable energy technology, it may do so at its own expense. This approach minimizes cost allocation among ARP Participants.

FMPA staff presented three metering and billing options with varying levels of financial impact on the ARP Participants. In general, when a utility pays retail rates, for instance, to a customer with a renewable generator, the utility is providing facilities and services that the customer is not paying for. This subsidy is ultimately paid for by the utility's other customers. In addition, a traditional net metering arrangement creates lost

revenues and unrecovered costs which must be reallocated among all utility ratepayers. To highlight this issue, FMPA staff presented the following options at the workshop:

(1) “True” Net Metering - Utility allows customer-owned generation to offset customer’s electric needs – reducing demand for utility electricity. At any point that customer generation exceeds customer’s needs, excess generation flows out to utility’s electric grid. Excess generation is credited at utility’s retail rate. This is done through “dual metering” or single bi-directional meter that “turns backwards.”

(2) Net Purchase and Sale - Utility allows customer-owned generation to offset customer’s electric needs – reducing demand for utility electricity. At any point that customer generation exceeds customer’s needs, excess generation flows out to utility’s electric grid. Excess generation (outflow) is separately metered and credited at utility’s avoided cost rate. Requires meter arrangement that measures the flow of electricity in both directions. Customer pays retail rate for total inflow. Utility credits customer avoided cost for total outflow.

(3) Simultaneous Purchase and Sale - Utility does not allow customer-owned generation to offset customer’s electric needs. Customer’s total load requirement is purchased from utility at retail rate. Total output of customer owned generation is sold to utility at avoided cost.

The members that participated in the workshop gave comments that generally indicated a preference for FMPA staff to move forward with the “Net Purchase and Sale” approach (option 2 above). FMPA staff has finalized their position on net metering, which was approved by the Executive Committee during the June ARP meeting. In that position, they have decided to proceed with Option 2. Also contained in the position paper is a sample tri-party agreement (FMPA, the utility, customer) and an interconnection agreement between the utility (FPUA) and the customer. The utility will be responsible for the metering and manual disconnect switch, with the customer responsible for the inverter, and electrical hook-up to the grid. The utility is responsible for performing a final inspection of the installation prior to it being put in-place for operation.

While there are still some details to be worked out, Staff recommends that FPUA adopt Standard 11, Net Metering. Now that FMPA’s detailed program is finalized, FPUA will structure our local program similar to FMPA’s program and offer it to our customers.

The second standard to consider is #12-fuel sources. The Energy Policy Act of 2005 (“EPA 2005”) amends PURPA by adding the following “Fuel Sources” standard (PURPA Section 111(d)(12)), which utilities must consider adopting:

Each electric utility shall develop a plan to minimize dependence on one fuel source and to ensure that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies.

This is a general standard that encourages utilities to decrease reliance on a single fuel source and to diversify its generation portfolio. Presumably the standard could apply to both generating and non-generating utilities, in that non-generating utilities could diversify by purchasing their electricity from a diverse range of generators.

FPUA is a member of FMPA's All Requirements Project (ARP). ARP Participants rely on a portfolio of shared resources. Through the ARP, each Project Participant has contractually agreed to purchase, and FMPA has agreed to provide, all of the Participants' power supply needs. To accomplish this, FMPA has developed a generation portfolio that consists of a diversified mix of FMPA-owned generation resources (including wholly owned and jointly owned resources), member-owned generation resources that have been dedicated to the Project, as well as wholesale power purchases.

Individual Participants, regardless of whether they own generation resources, benefit from the ARP generation portfolio as a whole. In fact, through their participation in the ARP, Project Participants are already part of an ongoing plan to diversify their fuel sources and generating technologies. In July, 2006, the ARP Participants approved an Integrated Resource Plan (IRP) that was the result of a year-long, in depth study to develop a 15-year power supply plan. The purpose of the IRP is to project the long-term power needs of the ARP, and provide a schedule of power resource additions and retirements that the ARP will follow in order to achieve the most reliable, economic power mix. In fact, a specific recommendation of the 2006 IRP is to reduce the ARP's exposure to natural gas price volatility by further diversifying the ARP's fuel mix. The IRP is to be updated every two years and is nearing completion as this is written.

Whether FPUA should adopt the "Fuel Sources" standard, and therefore develop a "plan" that goes beyond what the ARP has already accomplished through the IRP, is entirely within our discretion. However, any "plan" developed under the standard must take into consideration the Project Participant's role in the ARP Project. In other words, since each Project Participant is supplied entirely by, and benefits from, the ARP generation portfolio as a whole, any plan adopted by an individual ARP Participant to further diversify that Participant's fuel mix must be accomplished through their membership in the ARP.

It is FPUA Staff position that this standard not be adopted by FPUA. Staff feels the efforts of the ARP are sufficient to meet the intent of the standard and no further action is required by FPUA.

The third standard to consider is #13-Fossil Fuel Generation Efficiency. EPAAct 2005 amends PURPA by adding the following “Fossil Fuel Generation Efficiency” standard (PURPA Section 111(d)(13)), which utilities must consider adopting:

Each electric utility shall develop and implement a 10-year plan to increase the efficiency of its fossil fuel generation.

This standard promotes efficiency of the fossil fuel generation facilities owned or operated by a utility. For those Participants that do not own fossil fuel generating resources, the consideration is relatively simple – a utility cannot increase the efficiency of a facility that it does not own.

Like the Fuel Sources standard, ARP Participants that own generating resources must take the ARP Project into account when considering this standard. Any resulting “plan” to increase the efficiency of an ARP Participant’s generating resources must be done in consultation with, and with the consent of, FMPA. This is because taking an ARP resource offline while it is refurbished or upgraded in an effort to increase its efficiency will affect FMPA’s ability to meet its other ARP obligations, which is prohibited by the ARP Contract.

In addition, since all ARP Participants’ generating resources are dedicated to the ARP, the decision whether to invest any amount to increase a resource’s efficiency must be weighed against the new generation option. FMPA may determine that it is more cost effective for the ARP as a whole to build new generation rather than invest in the efficiency of old generation. In fact, the IRP addresses this very issue by planning new generation capacity on both forecasted load and the planned retirement of older generating units.

Therefore, while an individual ARP Participant may adopt the Fossil Fuel Generation Efficiency standard, any “plan” under the standard that affects ARP resources must be developed in coordination with the ARP via FMPA.

As in the case of Standard 12, Staff recommends that FPUA not adopt this standard. FPUA is now a non-generating City; therefore efficiency improvements to our facilities are not applicable. Further, as a member of the ARP, Staff feels that appropriate measures are being taken by FMPA to meet this standard through Integrated Resource Planning and our continued participation on the ARP (through the Executive Committee).

Public Notice for these standards was published on June 15, 2008. FPUA’s position paper was posted on the FPUA website for public review. No comments or questions have been received.

ALTERNATIVES (IF ANY):

Do not adopt PURPA standard 11. This is not recommended since the PSC has made this standard mandatory for Investor Owned Utilities and would require an explanation from FPUA. In addition, it would not be looked at favorably by our customers.

ATTACHMENTS: