Staff Recommendations on Standards 11, 12, and 13 of the Energy Policy Act of 2005 (EPAct 2005)

Introduction

This document represents the Staff findings, determinations, and recommendations for consideration and determination of Standards 11, 12, and 13 of the Public Utility Regulatory Policies Act of 1978 (as amended by the Energy Policy Act of 2005), 16 U.S.C. §2621(d)(11)(12) and (13). These findings will be adopted, modified or rejected by the City Commission at the July 14, 2008 Gainesville City Commission meeting, to meet the August 8, 2008 deadline to consider net metering, fossil fuel generation efficiency, and fuel diversity.

The Public Utility Regulatory Policies Act of 1978 (PURPA) was enacted as part of the National Energy Act by President Jimmy Carter. The Energy Policy Act of 2005 (EPAct 2005) adds five additional PURPA standards that state commissions and nonregulated utilities must consider. These include (1) net metering; (2) fuel diversity; (3) fossil fuel generation efficiency; (4) time based metering and communications; and (5) interconnection standards for distributed resources. Standards for time based metering and communications; and interconnection standards for distributed resources were considered and public comments were received on June 15, 2007. Standards were adopted by the City Commission on July 9, 2007

Standard for Net Metering

PURPA requires consideration that each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves. For purpose 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.

Standard for Fuel Diversity

The PURPA fuel diversity standard requires consideration that 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.

Standard for Fossil Fuel Generation Efficiency

PURPA requires consideration that each electric utility shall develop and implement a 10-year plan to increase the efficiency of its fossil fuel generation.

Timeline

May 28, 2008 - GRU Staff recommendation, as well as all documentation in support thereof, shall be made available to the general public.

On, or before June 9, 2008 – members of the general public planning to participate in the hearing must file a Notice of Intent to Participate in Hearing by this date and must file written testimony and any other information in support of or in opposition to the adoption of Standards 11, 12, and 13 by this date.

June 9, 2008 – a public hearing shall be held at the City Commission meeting, after 6 pm.

June 11, 2008 – The General Manager shall issue a Recommended Decision for Gainesville City Commission consideration at the July 14, 2008, City Commission Meeting.

July 14, 2008 - The Gainesville City Commission shall issue their decision adopting, modifying or rejecting the Recommended Decision at the June 9, 2008, City Commission Meeting. The Gainesville City Commission shall issue their determination on the implementation of Standards 11, 12, and 13 at the July 14, 2008 meeting.

Net Metering (Standard 11)

Considerations

1. Customers utilizing customer owned generation to offset some or all of their electric usage helps GRU avoid fuel costs and helps to offset the need for new generation.

2. On March 4th, 2008 the FPSC (Florida Public Service Commission) ratified a rulemaking to amend Rule 25-6.065, Florida Administrative Code, relating to Interconnection and Net Metering of Customer-Owned Renewable Generation. The amendment calls for Investor Owned Utilities in Florida to offer net metering to customers.

3. GRU currently offers a distributed resources credit rate for distributed resource(s) of less than or equal to ten (10) kW. Energy is credited at the prevailing generation component of the General Service Demand Energy charge plus prevailing retail fuel adjustment. Distributed resource(s) greater than ten (10) kW have energy credited at avoided cost as negotiated by contract.

4. Under GRU's residential and general service non-demand electric rates the value of GRU's distribution facilities is not reflected by the concept of net metering. Under these rates, costs associated with construction and maintenance of distribution facilities are not collected. Two part rates that collect for distribution costs through a demand charge account for the necessary collection of distribution costs.

5. Currently the only widely available form of customer owned renewable generation is solar photovoltaic (PV). GRU values renewable generation from a cost avoidance perspective as well as a green house reduction perspective. This value is reflected in GRU's $1.50 / watt PV rebate.

6. Some forms of customer owned generation can be powered by renewable sources and may result in lowering the greenhouse gas emissions of the City of Gainesville.

7. Net metering creates an incentive for distributed renewable energy resources

8. Gainesville provides incentives to encourage the adoption of customer owned, distributed, renewable generation resources.

9. Net metering is available in 42 states and the District of Columbia. The following Florida municipal utilities offer net metering: City of Tallahassee, Florida Keys Electric Cooperative, JEA, Lakeland Electric, New Smyrna Beach Utilities and OUC. It is advantageous to be consistent with other utilities in the State of Florida.

Staff recommends the Gainesville City Commission find:

1. Net metering creates an incentive for distributed renewable energy resources; and,

2. Customers utilizing customer owned generation to offset some or all of their electric usage helps GRU avoid fuel costs and helps to offset the need for new generation; and,

3. There is a benefit in making net metering available to electric customers with eligible on-site generating facilities that deliver to the local distribution facilities.

Staff recommended Determinations for Net Metering (Standard 11)

The Gainesville City Commission determine, based on consideration and findings, that Standard 11 of the Public Utility Regulatory Policies Act of 1978 (as amended by the Energy Policy Act of 2005), 16 U.S.C. §2621(d)(11) should be implemented through adoption of net metering standards and tariffs equivalent to retail rates for all classes of customers by October 1, 2008.

Fuel Diversity (Standard 12)

Considerations

- GRU has systematically evolved its fleet of generation resources to deploy a mix of fuel resources.

- The Ten Year Site Plan submitted to the Florida Public Service Commission, on April 1 of each year, outlines the fuel diversity in Section 3.4.5. (Page 34, "2008 Gainesville Regional Utilities, Ten Year Site Plan" Attachment A)

- Prior to the addition of Deerhaven Unit #2 in 1982, the System was completely dependent on oil and natural gas for over 90% of native load requirements.

- Deerhaven 2 is contributing to fuel diversity in Florida and reduced oil and gas use by other utilities by offering coal-generated energy in the Florida energy market

- In 2007, oil-fired generation comprised 1.6% of total net generation, natural gas-fired generation contributed 26.2%, nuclear fuel contributed 4.6%, and coal-fired generation provided 67.6% of total net generation.

- The Photovoltaic system at the System Control Center provides slightly more than 10 kilowatts of capacity at solar noon on clear days.

- GRU has a landfill gas to energy (LFGTE) project capable of providing 1.3 MW of renewable energy. GRU is pursuing an additional landfill gas generating opportunity in Marion County.

- GRU continues to identify and test new fuel and generation resources to reduce dependence on any one fuel type or source. Current areas of investigation include potential use of biomass in existing coal fired units, blending of residual fuel oil and recovered automotive oils, offshore coal, Illinois Basin bituminous coal, Powder River Basin Coal, and Colorado/Utah coal. Any fuel that has the potential to reduce costs and dependence on traditional fossil fuels will be considered.

- GRU will provide utility services to the new Shands at UF Cancer Hospital and build the GRU South Energy Center by 2009. The combined heat and power facility will house a natural-gas-fired combustion turbine providing 4.1 megawatts and have 80 percent thermal efficiency.

- GRU is currently in the process of contracting for the planning, permitting and construction of a generation unit that will be fueled by renewable biomass resources, and purchased under a power agreement.

- GRU is investigating the potential for up to 20 MW of nuclear generation at the Progress Energy of Florida proposed Crystal River Site, in conjunction with other municipalities in Florida.

- GRU continues to promote renewable energy for customers through demand side management programs, such as incentives for solar water heating, photovoltaic systems, and conversions and installations of gas appliances.

Staff recommends the Gainesville City Commission find:

1. GRU has minimized dependence on one fuel source and the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies; and,

2. GRU customers are encouraged to participate in the use of diverse fuels and renewable technologies through demand side management programs; and,

3. Fuel diversity is an important standard in planning for future generation needs.

Staff recommended Determinations for Fuel Diversity (Standard 12)

The Gainesville City Commission determine, based on consideration and findings, that Standard 12 of the Public Utility Regulatory Policies Act of 1978 (as amended by the Energy Policy Act of 2005), 16 U.S.C. §2621(d)(12) has been implemented through GRU's minimized dependence on one fuel source, and that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies, and that fuel diversity will be an important standard in planning for future generation needs.

Fossil Fuel Generation Efficiency (Standard 13)

Considerations

- The present summer net capability of the existing generating facilities operated by GRU is 611 MW and the winter net capability is 632 MW. Currently, GRU's energy is produced by three fossil fuel steam turbines, six simple-cycle combustion turbines, one combined-cycle unit, a 1.4079 % ownership share of the Crystal River 3 nuclear unit operated by Progress Energy Florida (PEF), and two internal combustion engines that run on landfill gas.

- GRU's six industrial gas turbines make up 24.9% of the System's summer generating capability and produced 2.2% of the electric energy in 2007. These simple-cycle combustion turbines are utilized for peaking purposes

only because their energy conversion efficiencies are considerably lower than steam units. As a result, they yield higher operating costs and are consequently unsuitable for base load operation.

- Details on the generating units operated by GRU are found in the annual Ten Year Site Plan in section 2.1.1 Generating Units. (Page 2, "2008 Gainesville Regional Utilities, Ten Year Site Plan," Attachment B)

- GRU seeks ways to improve the efficiency of its fossil fuel generation through review of heat rates, regular reporting and monitoring of units. GRU continues to invest in capital improvement projects.

- GRU upgraded an older, less efficient unit in May 2001, by repowering Kelly Unit 8 to create Combined Cycle 1 at the Kelly Generating station, producing 112 MW compared to the 43 MW from the original unit.

- GRU plans to update the Deerhaven Unit 2 turbine, in conjunction with the environmental retrofit in 2011.

- As part owner in the Crystal River 3 nuclear unit, GRU will benefit from three uprates of the unit's capacity approved by the Nuclear Regulatory Commission (NRC). GRU's share (1.4079%) of the uprates (first 11 MW in 2008, second 28 MW in 2009, and 140 MW in 2011) will net GRU 2.5 MW of additional base load capacity.

- GRU is contracting with the engineering, architecture and construction firm of Burns and McDonnell to design and build the GRU South Energy Center, which will provide utility services to the new Shands at UF Cancer Hospital. The new combined heat and power facility will house a natural-gas-fired combustion turbine providing 4.1 megawatts and have 80 percent thermal efficiency. In addition to providing needed electricity, it will also provide cooling and steam which will make it one of GRU's most efficient generating units. The Energy Center is expected to be online by 2009.

Staff recommends the Gainesville City Commission find:

1. GRU continuously evaluates the efficiency of its fossil fuel generation and continues to increase the efficiency of its fossil fuel generation; and,

2. The details of fossil fuel generation efficiencies are filed annually with the Florida Public Service Commission, in the Ten Year Site Plan.

Staff recommended Determinations for Fossil Fuel Generation Efficiencies (Standard 13)

The Gainesville City Commission determines, based on consideration and findings, that Standard 13 of the Public Utility Regulatory Policies Act of 1978 (as amended by the Energy Policy Act of 2005), 16 U.S.C. §2621(d)(13)) has been implemented through GRU's continual evaluation of unit efficiencies. The annual Ten Year Site Plan fulfills the PURPA standard to develop and implement a 10-year plan for efficient fossil fuel generation.

Future Procedures

A Recommended Decision incorporating findings and evidence developed from the June 9, 2008 public hearing and comments submitted in writing will be issued June 11, 2008.