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July 18, 2008

Ms. Cindy Miller
Ms. Judy Harlow
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0850

Dear Ms. Miller and Ms. Harlow:

Attached are Gulf Power Company's post-workshop comments in response to the July 11, 2008 RPS Workshop. Please let me know if you have any questions.

Sincerely,

Susan D. Ritenour (lw)

lw

Attachments

cc: Florida Public Service Commission
Mark Futrell

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I. Elaboration of comments made by Gulf Power at the Workshop

Gulf Power submitted a proposed high-level framework for developing an RPS in response to House Bill 7135. The proposed framework consists of five steps, the first four of which would be completed in sequential order.

1. Determine the overarching Objectives of the RPS

Determining and communicating clear overarching objectives early in the process will reduce confusion and conflict throughout the remainder of the RPS development process. Staff stated this important principle well on page 2 of their summary of the 2007 RPS Workshops:

“First and foremost, the objectives of an RPS must be clearly identified, weighted, and prioritized.... To produce the best RPS design for the state, articulating the primary objectives early in the process is important. Differentiation must also be made from secondary objectives that, while also important, are subordinate to primary objectives.”

Reduction of greenhouse gasses is a top priority of the legislature. This is evident in HB7135 section 5 where it states:

*“F.S. 187.201 State Comprehensive Plan (11) Energy.—(a) Goal.—
Florida...shall reduce atmospheric carbon dioxide by promoting an increased use of renewable energy resources and low-carbon-emitting electric power plants.”*

Cost control is also a top priority of the legislature. In spite of the fact that the legislature did provide for the possibility of “above avoided cost” contracts, it strongly emphasized cost-control mechanisms up front and cost-driven safety valves in the end.

“F.S. 366.92(3)(b) The commission's rule: 1. Shall include methods of managing the cost of compliance with the renewable portfolio standard,...2. Shall provide for appropriate compliance measures and the conditions under which noncompliance shall be excused due to a determination by the commission that...the cost of securing renewable energy or renewable energy credits was cost prohibitive” HB7135 section 42

2. Clarify the Definition of “Renewable Energy”

The RPS section of HB7135, 366.92 Florida Renewable Energy Policy, contains references to F.S. 366.91(2)(d) and F.S. 377.803 as definitions for “Renewable Energy” and “Florida Renewable Energy Resources” respectively. The inclusion of both of these definitions in the RPS section of the law creates confusion about whether thermal energy from renewable sources counts toward RPS compliance. The term “Florida Renewable Energy Resources”, although defined in 366.92, is not used anywhere in 366.92. The RPS language does not reference the term “Florida Renewable Energy Resources” other than to define it. It is useful to note that the term “Florida Renewable Energy Resources” is used in 366.82(1)(b)

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where HB7135 placed an added emphasis on demand-side renewable energy goals under FEECA. However, this doesn't clear up the confusion over the definition for RPS purposes. Without further clarification of the definition of the term "Renewable Energy" for RPS purposes, the answers to the following questions are unclear:

- Will solar thermal water heating at a residence count toward RPS compliance?
- Will geothermal heating and cooling at a residence count toward RPS compliance?
- Will solar thermal water pre-heating at an electric generating plant count toward RPS compliance?
- Will electricity generated by all forms of waste heat count toward RPS compliance or only electricity generated by waste heat from sulfuric acid manufacturing operations?

Staff's July 8th draft *Proposed Scope of Work for a Consultant to Assess the Potential for Electric Energy Generation from Renewable Resources in Florida* references 366.91(2)(d) as the definition of renewable energy. Staff's recent RPS data collection request dated July 14th interpreted the definition of renewable energy differently. The definition of "Florida Renewable Energy Resources", a term which, as described above, is not used anywhere in the RPS statute except to define the term itself, is used in the data request as the baseline definition of "renewable energy". The data request further concludes that 366.91(2)(d) [and by implication 366.91(2)(a)] "clarifies" the assumed baseline definition of "Florida Renewable Energy Resources".

Page 3 of staff's July 8th draft *Proposed Scope of Work for a Consultant to Assess the Potential for Electric Energy Generation from Renewable Resources in Florida* contains a footnote that states that "*Customer-owned renewable resources which offset customer electric usage are not a part of this assessment.*" This is a very important point of clarification for the Assessment and has significant impact on RPS development. Without further clarification of the definition of the term "Renewable Energy" for RPS purposes, the answers to the following questions are unclear:

- Will customer-owned renewable resources which offset customer electric usage count toward RPS compliance?
- Will utility-owned renewable resources which offset customer electric usage (behind the meter) count toward RPS compliance?

Gulf Power believes the Commission's clarification of the definition of the term "Renewable Energy" as it will be applied to the RPS is critical to an efficient and successful implementation of HB7135.

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3. Complete a state-wide Assessment of Renewable Energy potential

The Assessment should begin only after the definition of the term “Renewable Energy” has been clearly defined in order to ensure that all appropriate renewable energy resource potential is captured and to avoid the assessment of resources that will not be included in the RPS.

“F.S. 366.92(3)(a) In developing the rule, the commission shall evaluate the current and forecasted levelized cost in cents per kilowatt hour through 2020 and current and forecasted installed capacity in kilowatts for each renewable energy generation method through 2020.” HB7135 section 42

In addition to the legislative requirement to assess costs and capacity for renewable energy in the state of Florida, the Commission should also include in the assessment: product/process maturity (theoretical, developmental, or commercially available); energy (kWh) production ability; land requirements in acres; and CO₂ emissions in lb/kWh for each technology type.

4. RPS Goal levels

Only after completion and analysis of the state-wide Assessment of Renewable Energy potential, a thorough review of the economic impacts of various options, and consideration of overlapping mandates should RPS goal levels be set.

Economic impact considerations should be balanced and include both the benefits and the costs of shifting from traditional generation sources to renewable energy generation sources. Considerations should include:

- Jobs added by implementing renewable generation methods
- Jobs lost by avoiding or replacing traditional generation methods
- Benefit of buying some biomass fuel from within the state
- Cost of using land to grow biomass fuel rather than food crops or livestock
- Economic benefit of keeping some fuel expenditures in-state
- Economic harm of higher electricity prices on all state residents and businesses

In setting the RPS goal levels, the Commission should also take into consideration overlapping or duplicate mandates for reducing greenhouse gasses. Cap and Trade legislation in HB7135 section 65, demand-side renewable energy goals in HB7135 section 39, existing state rebate and grant programs for renewable energy developers, and pending recommendations of the Florida Governor’s Action Team are a few examples of overlapping efforts by the state to reduce green house gas emissions. The RPS will be one of many actions taken to this end and its costs will be added to the costs of these other efforts – costs which the citizens of the state of Florida will bear. The Commission staff stated this concern well on page 3 of their summary of the 2007 RPS Workshops:

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“Policies, such as carbon pricing and government funding of renewable rebates and incentives, that increase the relative cost-effectiveness of renewables will result in the additional development of renewables separately from an RPS. Care must be taken to avoid adopting duplicate or conflicting programs. Otherwise, Florida’s citizens will pay more than is necessary.”

Special attention should be given to the overlap between demand-side renewable energy goals as discussed in HB7135 section 39 (366.82) and the RPS goals. Gulf Power recommends keeping demand-side and supply-side Renewable Energy generation goals separate in order to avoid confusion, overlap, and double counting. Demand-side programs, whether conservation programs or renewable energy programs, have the unique characteristic that they are implemented through customer acceptance. This makes goal setting and goal achievement more volatile than in the RPS context. Demand-side renewable energy installations are also difficult to implement well in an RPS context because of the desire for accurate and complete measurement and verification. Although engineering estimates and sampling load research are acceptable means of verifying performance under FEECA, the cost to accurately and completely measure and verify ongoing performance of a large number of small, customer-sited renewable energy generation facilities outweighs their benefits, making them more suited for applications under FEECA goal setting than under the RPS.

The Commission should exercise extreme caution while evaluating non-commercially available Renewable Energy technologies within the context of RPS goal setting. Predicting when and if a non-commercial technology, with little or no large-scale production history, will move out of its theoretical or development phase and into the production phase and then to predict further what the cost of energy produced by that technology will be is very risky business. Significant breakthroughs in technology that yield newly commercially available renewable energy resources could certainly trigger RPS goal adjustments as deemed necessary by the Commission. However, non-commercially available renewable energy technologies should not be included in setting RPS goals.

5. Details

Gulf Power looks forward to providing additional input on the many details associated with the development of an RPS such as: Cost recovery, expense caps, incentives, penalties, REC rules, REC administration, REC verification, REC tracking, REC ownership, and etc.

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II. Public Benefits Funds

A Public Benefits Fund (PBF), sometimes called a Systems Benefit Charge, is an ongoing tax on utility customers. The funds collected do not depend on the performance of any organization or technology – they are collected regardless of performance or non-performance, regardless of whether the benefits intended to be purchased by them are actually attained or not.

The use of a PBF to fund the development of new renewable energy resources is redundant with an RPS. The Commission should consider the overlapping, duplicate nature of the suggestion that both an RPS and a PBF should be implemented in Florida. The RPS will raise customers' rates in order to facilitate the development of new renewable energy resources. Gulf Power does not believe that an additional rate increase in the form of a tax on customers' bills should be implemented to meet the same objective as the RPS already under consideration. Staff's comments on page 3 of their summary of the 2007 RPS Workshops apply here:

“Policies, such as carbon pricing and government funding of renewable rebates and incentives, that increase the relative cost-effectiveness of renewables will result in the additional development of renewables separately from an RPS. Care must be taken to avoid adopting duplicate or conflicting programs. Otherwise, Florida's citizens will pay more than is necessary.”

The risk of PBF funds being “raided” for purposes other than those originally intended is real.

“Out of 23 states in our study with some category of public benefits funding policy, at least 11 have experienced a significant attempt to divert monies from one or more of their public benefits funds.”

Quote from page 17 of ACEEE's April 2004 report titled
*An Examination of the First Half-Decade of Public Benefits
Energy Efficiency Policies*

Once implemented, a PBF tax doesn't easily go away.

“...only one state has terminated its public benefits policies...”

Quote from page 16 of ACEEE's April 2004 report titled
*An Examination of the First Half-Decade of Public Benefits
Energy Efficiency Policies*

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III. Tiers, Carve-Outs and Set-Asides versus Multipliers

If some form of renewable energy generation technology is to be treated with favor, a Multiplier is the most efficient method for doing so. Tiers, Carve-Outs and Set-Asides all constitute mandates within a mandate and as such drive the cost of compliance up. Tiers, Carve-Outs and Set-Asides eliminate competition between renewable energy generation technologies. Mr. Patrick Jeffery, representing Wheelabrator at the FPSC's December 6, 2007 RPS Workshop, stated this clearly and repeatedly in his comments. He discussed the differences between multipliers and Tiers (pages 63 to 66 of the transcript). In touting the benefits of Tiers, Mr. Jeffery characterized them as mechanisms that "...eliminate the competition between the technologies..." and stated that "...the reason this is important is we don't want to create competition between technologies..." In response to a question by staff, Mr. Jeffery responded that Tiers would "...actually result in ultimately a higher cost for certain RECs." Tiers, Carve-Outs and Set-Asides reduce flexibility and eliminate pressure on renewable generators to improve the efficiency of their technology which would otherwise result in lower costs to produce electricity. This ultimately drives up the cost customers bear for compliance with the RPS.

Under a Multiplier approach, a favored technology does compete with other technologies on cost but is given a significant head-start in the competition. The cost of that head-start is not borne by the customers and over time, with a proper phase out, that head start diminishes, ultimately to nothing.

A Multiplier should be set in such a way that the cost of the favored renewable energy generation technology (PV, wind, etc.) is cost-competitive with other, low-cost technologies. Multipliers will be successful when the favored technology is voluntarily chosen by RPS compliers because it is cost-competitive.

Mr. Mark Sinclair, representing the Clean Energy Group at the July 11, 2008 RPS Workshop, favored Set-Asides over Multipliers but allowed that the ineffectiveness of Multipliers in other states "...may be because the multipliers are not set high enough."

It is important to note that only modest precision is required in setting Multipliers. For example, the effect of a PV multiplier of 5.1 will be so similar to the effect of a PV multiplier of 5.0 that the difference will be insignificant. Just as a mass-marketer is not concerned over the difference between the effect of a \$102 mail-in rebate versus the effect of a \$100 mail-in rebate, the 2% difference between a 5.0 multiplier and 5.1 multiplier should not be cause for great concern. However, the fact that a 5x multiplier is 67% more than a 3x PV multiplier is significant. The significantly higher multiplier lowers the estimated 25¢/kWh cost to the complier for PV energy from 8.3¢/kWh (using a 3x multiplier) down to 5¢/kWh (using a 5x multiplier) and allows PV to compete with other low-cost alternatives such as landfill gas.

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Multipliers can be contrasted with Set-Asides in one other way. Set-Aside mandates start low and increase over time. Thus their greatest impact on the favored industry is in the distant future. Multipliers on the other hand, have their greatest impact in the near-term. A well designed Multiplier which phases out over time as the favored technology becomes more cost-competitive through technology efficiencies, will provide the largest incentives to invest in that favored technology in the early years.

IV. Alternative Compliance Payments versus Penalties

An Alternative Compliance Payment (ACP) is not a Penalty. Rather, an ACP is an additional means for complying with an RPS mandate. Assuming ACPs are implemented in Florida, methods available for compliance with an RPS will include:

- Generating renewable energy,
- Purchasing renewable energy,
- Purchasing Renewable Energy Credits, and
- Making Alternative Compliance Payments

An ACP can appropriately be used to “fill the gap” when renewable energy supply is not adequate for compliance. Expenses associated with complying through ACPs should be allowed full cost recovery, just as full cost recovery should be allowed for all of the other methods of compliance listed above.

The price of an ACP is generally set high by rulemaking authorities so that lower cost renewable energy alternatives will be attractive to utilities as they make choices in how to comply with their RPS mandate. For example, an ACP set at 5¢/kWh will be less attractive to the complying utility than purchasing landfill gas at a 1¢/kWh premium over avoided cost. The utility incurs less cost to comply, by 4¢/kWh, for every kWh purchased from the landfill versus paying the ACP.

The usefulness of the ACP is observed in a scenario where an RPS causes demand for renewable energy to outstrip supply. In the following example, the term “renewable energy” refers to purchased renewable energy and/or purchased RECs. If no ACP is in effect and if the utility has an RPS mandate to acquire 100mWh of renewable energy in a year, and if the supply of renewable energy in that year is only 25mWh, then two things will happen:

1. the utility will not be able to comply – they can only get 25mWh and will be short of their mandate by 75mWh
2. the price for those 25mWh the utility does purchase can be set by the seller at an exorbitantly high level – it’s a sellers’ market with no downward pressure on prices

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If however, an ACP of 5¢/kWh is applied in this scenario, then

1. the utility will be able to comply – they will purchase 25mWh of renewable energy and then will pay the ACP of 5¢/kWh for the remaining 75mWh, thus reaching a 100mWh compliance level
2. the price the utility pays for the 25mWh will be lower than or equal to 5¢/kWh over their avoided cost

The utility has no incentive to purchase renewable energy or RECs at a price above the ACP, which effectively creates an upper limit for the price of renewable energy in this mandate-induced and supply-constrained “market”. Some would argue that we should let “market forces” freely act on the price paid for renewable energy rather than intervening with a price-limiting ACP. However, since the demand for renewables is already artificially induced – via the RPS mandate – and therefore the price for compliance, ultimately passed on to consumers, should not be allowed to get out of hand. An ACP provides a means for compliance when nothing else of reasonable cost is available and effectively restrains per kWh prices of renewable energy in short supply.

Note that in the scenario where supply of inexpensive (incremental cost is less than ACP) renewable energy exceeds RPS induced demand, the ACP will be unused. Inexpensive renewable energy will be purchased for compliance, RPS objectives will be met and no Alternative Compliance Payments will be made.

The ACP is not a Public Benefits Fund (PBF). Unlike the ongoing tax structure of the PBF that collects funds from customers regardless of circumstances, ACP funds are only available if the supply of renewable energy is inadequate to support the RPS mandated demand for renewable energy. Thus dollars collected for ACP should be expected to vary significantly from year to year.

Gulf Power recommends using the fluctuating funds generated by Alternative Compliance Payments to supplement existing state funding of rebates for customer-owned, demand-side renewable energy technologies. These customer owned, demand-side renewable energy technologies will be the most difficult form of renewable energy to implement because the customer must be convinced that it is in his or her best economic interest to invest in a renewable energy technology.

IV. Conclusion

Gulf Power sincerely appreciates the opportunity to participate in this process.