CleanEnergyGroup
Innovation in Finance, Technology & Policy

July 7, 2008

Ms. Judy Harlow
Division of Economic Regulation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: In Re: Implementation of RPS for Florida Pursuant to the Provisions of HB 7135 Commission Workshop, July 11, 2008

Dear Ms. Harlow:

Pursuant to Notice of Commission Workshop, issued on June 27, 2008, enclosed please find the comments of the Clean Energy Group (CEG) regarding issues relevant to the development and implementation of a Renewable Portfolio Standard for Florida pursuant to HB 7135.

On behalf of CEG, I intend to attend the Commission Workshop on July 11, 2008, to summarize our comments in prepared remarks.

Sincerely,

Mark Sinclair
Vice President
Clean Energy Group

Attachment: Comments
Enclosure: Appendix A – Recommended State RPS Eligibility Definitions

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
UNDOCKETED

IN RE: IMPLEMENTATION OF A RENEWABLE PORTFOLIO STANDARD
FOR FLORIDA PURSUANT TO THE PROVISIONS OF HB 7135

COMMENTS OF CLEAN ENERGY GROUP ON ISSUES RELEVANT TO DEVELOPMENT AND IMPLEMENTATION OF RPS
July 11, 2008 Commission Workshop

In response to the Notice of Commission Workshop on Implementation of a Renewable Portfolio Standard for Florida (June 27, 2008), Clean Energy Group (CEG) offers preliminary comments on the effective design and implementation of an RPS in Florida.

CEG is a national nonprofit organization working in the United States and internationally on technology, finance and policy programs in the area of clean energy. CEG also manages the Clean Energy States Alliance (CESA). CESA is a nonprofit state membership organization, incorporated in 2002, as a multi-state coalition of the leading state clean energy funds and programs working together to support and promote clean energy technologies.[1]

CEG works with states across the country to advance the success of RPS programs. Specifically, with funding from the Department of Energy, CEG has established and is facilitating a state-federal RPS collaborative with state RPS administrators and regulators, federal agency representatives, and other RPS stakeholders to advance dialogue and learning about RPS programs. This multi-state RPS collaborative is examining the challenges and potential solutions for successful implementation of state RPS programs, including identification of best practices. The initiative is distilling lessons from state RPS experience that could be useful in the design of a Florida RPS.

While there is no single, ideal way to design an RPS, research and experience of individual states have shown that there are a number of design principles and program elements that can increase program effectiveness and success. CEG recommends that the Florida Commission look to the lessons learned by states with existing RPS programs to ensure success.[2] CEG's initial comments on design of effective structure for a Florida RPS program are detailed below.

Establishing Incentive Mechanisms for Renewable Energy Technologies

Many states have determined that critical to the success of any RPS is the establishment of a "public benefit" fund or other incentive mechanism to encourage the development of higher cost clean technologies. Public benefit funds (PBF) are a dedicated funding source that can be used to provide financial support to renewable projects and are usually funded through a modest charge

[1] For more information about CEG and CESA, see www.cleanegroup.org and www.cleanenergystates.org.

[2] The recommendations here are offered only on behalf of CEG and do not represent the perspective of the national RPS collaborative, DOE, or any individual states.

on electric consumers' bills. Many states have used a PBF in combination with an RPS to ensure and accelerate renewable project development.

CEG recommends that Florida establish a PBF to provide financial support for renewable energy projects as part of any RPS program, with a focus on distributed generation and higher cost technologies, with funding derived from a dedicated system benefit charge. In addition, funds generated through RPS alternative compliance payments should be added to the PBF to support project development.

Over twenty states have PBFs to fund renewable energy projects. Common renewable energy (RE) PBF programs in place in the states include: (1) fixed production incentives, (2) capital grants or rebates, (3) information and education programs, (4) low-cost consumer loans, (5) investment vehicles, (6) infrastructure building grants, and (7) research and development efforts. The most successful Funds allow for flexibility in the approaches used to support clean energy projects and are administered by state agencies or independent organizations.

RPS Targets

CEG does not offer a specific recommendation at this point regarding the appropriate Florida numeric target for the RPS. We note, however, that aggressive targets will be necessary both to ensure a robust electric system and to reduce greenhouse gas emissions sufficiently to prevent economic, environmental, and public health calamities from human-induced climate change.

Regardless of the specific requirement, the targets and program rules should remain stable over time and not subject to sudden or uncertain shifts. This will create an investment climate for project development conducive to long-range planning and investment. Other states have found that frequent changes in program design will inevitably lead to market stagnation as investment decisions are deferred in the face of future program uncertainty.

CEG also submits that the primary goal of the Florida RPS should be to drive new renewable resource development and increased production of renewable electricity. Eligibility of *existing* renewable generation should be limited with support targeted to new renewable project development. Since the goal of an RPS is to increase the contribution that renewable generation makes to the total power supply, existing generation is best regarded as the baseline above which RPS targets are set.

The RPS targets should be ambitious, but achievable, given developable resource potential, transmission constraints, interconnection barriers, and potential siting challenges. This will prevent reoccurring shortages that trigger enforcement actions and drive up the cost of compliance.

Renewable energy purchase requirements should increase over time to realize resulting public benefits. The RPS rule should require that utilities increase their procurement of renewable electricity generation by a certain percentage of total load each year, with a "ramp-up" sufficient to bring utilities to the required future target levels at least on a straight line basis, using annual targets to facilitate progress checks.

Program Duration

The Florida RPS should be of sufficient duration to allow for long-term contracting and financing. Without some assurance of program continuity over time, buyers and investors will not have the confidence that they need to make extended commitments.

Eligibility

The RPS rules should provide clarity in eligibility (including technology, fuel, vintage, and location) so market participants can assess eligibility before making significant financial commitments. Eligibility rules should be well-defined and stable, and not subject to sudden change. Fuel, technology, and vintage eligibility decisions should be guided by an assessment of the social benefits of the particular resources and technologies, and by an evaluation of the need of those projects for extra-market revenue from an RPS.

Geographic Eligibility

The RPS rules on treatment of out-of-state resources also should be well-defined and legally defensible. These rules must be consistent with the requirements of the dormant commerce clause of the U.S. Constitution and recognize that regional development of renewable resources can create shared benefits and reduce compliance costs.

Geographic eligibility rules differ greatly among the RPS states. Some RPS policies require that an eligible facility be located in-state or directly connected to the state grid. Other states are less restrictive, requiring only that energy be delivered to a regional control area or regional transmission organization.

CEG recommends that the Commission consider use of a larger geographic area eligibility definition within which utilities can purchase "unbundled" RECs to apply against their RPS obligations. This will lower the overall costs of compliance because an expanded set of low cost renewable resources can be developed under an unbundled REC structure. In addition, by expanding the number of potential suppliers, broader geographic eligibility reduces the ability of any participant to corner the market or otherwise exert market power.

Resource Eligibility

The eligibility of specific renewable energy technologies under an RPS should be well-defined. Ambiguity creates market uncertainty and stifles investment. The use of clear, precise definitions of RPS resource eligibility reduces administrative complexities and costs by avoiding debates over vague resource eligibility definitions. To that end, CEG recently crafted suggested model RPS resource definitions based on the input from and commonalities in the definitions of 7 state RPS programs in the Northeast and Mid-Atlantic region. The recommended RPS eligibility definitions are enclosed in Appendix A. The definitions provide flexibility to allow for technology advancement and development. The definitions are technology and fuel inclusive and attempt to avoid discrimination against any one renewable resource. The Florida PSC may want to consider the merits of these definitions in developing an RPS rule.

The proposed definitions include the following energy sources as eligible for an RPS: most biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using any fuel, small hydro-electric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal and river and tidal current. Under the definitions, electricity generated from the following technologies is not RPS-eligible: large hydropower (larger than 30 megawatts), nuclear energy, and fossil fuel sources, including those for which carbon is sequestered.

Eligibility of Distributed Generation

CEG strongly recommends that customer-sited projects that otherwise meet the eligibility criteria should qualify for the Florida RPS. We also recommend that renewable energy applications that save electricity (such as geothermal heat and solar hot water) be provided with eligibility. This recognizes the additional social benefits that distributed resources contribute.

A key policy objective should be to assure a certain level of resource diversity among the renewable energy technologies and fuels. To that end, the Commission should consider establishing (1) specific resource set-asides and (2) complementary policy and program approaches, such as establishment of a public benefit fund to provide financial assistance for more expensive technologies such as solar PV. Many states have mandated or authorized the use of upfront financial incentives in tandem with their RPS programs to achieve smaller-scale, customer-sited RE project deployment, including the states of Colorado, Arizona, New Jersey, New York, and Maryland.

Tradable Renewable Energy Certificates (RECs)

HB 7135 appropriately allows the use of tradable RECS. This will provide for contracting flexibility, lower compliance costs, and simplified verification. The Commission should establish and maintain a REC trading program. The Commission may wish to consider the use of APX, a leading infrastructure provider for environmental and energy markets in renewable energy.[3]

Since the primary purpose of an RPS is to stimulate renewable energy development and enable a wider market, rather than limit total demand for renewable energy, CEG recommends that the Florida RPS rule prevent the use of a REC for both voluntary markets and for the RPS obligations. This is consistent with HB 7135 that states that the Commission's rule "shall ensure that energy credited toward compliance with the requirements of this section is not credited toward any other purpose." Section 366.92(3)(b)6. Consumers who voluntarily pay more for renewable energy expect to promote additional development above legal requirements. To protect these consumers, voluntary green power sales should be prohibited to satisfy separate RPS mandates. If consumers are aware that the renewable energy that they are buying is required by law and would be generated without their contributions, participation in voluntary demand programs will be undercut and harmed.

[3] The APX Environmental Market Depository™ creates, tracks, manages, and retire renewable energy certificates.

The RPS rule should explicitly state that the same renewable energy shall not be used for more than one of the following: (1) compliance with the renewable portfolio standard of this state or any other state, or (2) for any voluntary clean electricity market or program in this state or any other state.

REC Banking

CEG recommends that the RPS Rule allow for banking but for a finite duration to encourage market liquidity and ensure that the RPS provides ongoing demand for renewable generation. Limits to the share of an obligation in any compliance period that can be met through use of banked RECs also should be considered as a means to promote market liquidity and continuous demand for renewable energy.

For these reasons, CEG believes that the banking approach by Massachusetts RPS program has merit. Utilities are allowed to bank RECs procured in excess of compliance needs for up to three years. However, the number of RECs that a utility is allowed to bank is limited to a maximum of 30% of the number of RECs they are required to hold in the compliance period in which the RECs were created. Once banked, the RECs cannot be resold. Further, the ability to bank REC for use in future compliance periods is limited to the utility exclusively, not to aggregators or brokers.

This approach is reasonable for two reasons. First, prohibiting the resale of banked RECs limits opportunities to hoard RECs for purposes of driving up REC prices. Second, the 30% limitation prevents a utility from procuring the entire amount of RECs if needs to achieve its RPS goals in multiple years in a single compliance period, resulting in uneven demand for RECs and renewable energy.

Enforcement

An effective RPS must be enforceable and impose repercussions on utilities that fail to meet to mandates and numeric targets. Clear rules for enforcement should be established, providing confidence to renewable energy developers that suppliers will make their required purchases. At same time, the RPS rule should allow some compliance flexibility in the face of supply constraints that are difficult to predict, through use of banking and borrowing.

HB 7135 states that the Commission rule "shall provide for appropriate compliance measures and the conditions under which noncompliance shall be excused …" Section 366.92(3)(b)2. CEG recommends that the RPS rule establish alternative compliance payments under this statutory provision as an effective enforcement approach. Specifically, the RPS rule should allow covered utilities to pay a set price into a renewable energy development public benefit fund in lieu of procuring renewable electricity as a less punitive enforcement approach. It also will be important for the Commission to put provisions in place to ensure that this funding source is dedicated and used by the state (or an independent fund manager) to support development of available renewable energy. In addition, the ACP payment should be set at a level significantly higher than the estimated compliance cost for procuring renewable electricity or RECs, if additional generation is to be encouraged.

The Commission should consider the alterative compliance mechanisms used by the Rhode Island, Maryland, and Massachusetts RPS programs. These states have established alternative compliance payment systems with the money devoted to newly-created state-administered renewable energy development funds.

A particularly innovative approach is used by the state of Massachusetts. Under the Massachusetts RPS, utilities are authorized to use an alternative compliance mechanism to pay 5 cents/kWh into a state renewable energy trust fund to meet the RPS requirements. The monies from the Massachusetts fund are being used to stimulate eligible renewable projects and to offer guaranteed contracts for RECs to developers. These contracts are offered either as a direct REC purchase or a purchase option, in which developers can decide each year whether to sell RECS to the state at a fixed price or sell them into the market if they would bring a better price. Through this approach, the state trust fund helps to minimize REC price uncertainties for project developers and takes on the market risks associated with future REC demand and value.

Providing Differential Support for Solar and Distributed Generation

HB 7135 states that the RPS rule may provide weight to energy provided by solar photovoltaics and wind over other forms of renewable energy. Section 366.92(3)(b)3.

Pursuant to this statutory provision, CEG recommends that the Florida RPS provide differential support for solar technologies and distributed generation. According to recent research by Lawrence Berkeley National Lab (LBNL)[4], RPS policies with no differential support for solar are unlikely to provide meaningful support to customer-sited or utility-scale photovoltaics. Further, with the exception of the desert Southwest, RPS policies with no differential support for solar are also unlikely to greatly benefit solar thermal electric generation.

Typically, differential support for higher-cost technologies has been provided either through "set-asides", in which some fraction of the RPS must be met with favored technologies, or through credit "multipliers", in which the favored technology is given more credit towards meeting the RPS requirements than other technologies. Evidence from states using these mechanisms indicates that solar share requirements (or direct financial incentives) are likely to be more effective than multipliers in growing the solar market within an RPS.

Recent analysis by LBNL of the states that use credit multipliers – Washington, Delaware, Maryland and New Mexico – confirms that multipliers have had no real impact on solar deployment to date, and no impact is expected. That is, states that only have credit multipliers for solar, but no solar-share requirements, have not seen significant solar additions. This partly reflects the fact that credit multipliers have not been large enough to spur heightened interest. It also reflects the fact that customer-sited solar projects face solicitation barriers due to their small individual size. Therefore, it appears that for an RPS to significantly benefit solar technologies, a solar share requirement is necessary. Alternatively, multipliers must be set at very high levels and specific actions taken to remove contracting barriers for small, customer-sited projects.

[4] CEG works in close partnership with LBNL on analysis for states of RPS and renewable energy program issues. Among other joint work, CEG and LBNL have written a series of case studies on state approaches to advancing renewable energy.

Set asides for solar or distributed generation now exist in 12 of the 26 state RPS programs.[5] Because of the value that solar and distributed generation provide to reduce peak loads, emissions, and load congestion, CEG recommends that the Commission should establish solar and DG set-asides for solar PV, solar thermal electric, solar heating and cooling, and non-PV distributed generation.

CEG further recommends that the Florida RPS program include provision of significant, long-term solar financial incentives to customers through use of a system benefit charge or tariff. Sizable solar markets typically exist in those states that have solar set-asides in their RPS policies ***combined with*** solar incentive programs. Because solar energy remains relatively expensive when compared to other renewable energy technologies, most of the states with solar set-asides also offer financial incentives to assist with solar compliance. For example, New Jersey offers a rebate for customer-owned solar systems ranging from $3.80 to $4.40/W. Similarly, Colorado's RPS requires utilities to offer customers for the installation of eligible solar generation on a customer's premises, and another $2.50/W to compensate customers for the solar REC that the utility then applies toward RPS compliance.

Specifically, CEG recommends that the Commission consider the incentive structure used by the state of Arizona to advance distributed generation deployment through its RPS framework. In Arizona, 30% of the RPS target must be derived from distributed energy technologies by 2012 and thereafter. One-half of the annual distributed energy technologies must come from residential applications and one-half from non-residential, non-utility applications. To achieve these targets, Arizona's RPS establishes dedicated funding through special utility tariffs to make incentives available to customers to install distributed, providing at least half of a system's costs.

Project Financing and Long-Term Contracts

CEG recommends that the Florida RPS program establish and require long-term contracting standards for regulated utilities. Regulated utilities entering into long-term purchasing agreements for renewable certificates and power supplies will create the security that investors are looking for in backing renewable projects. Requiring utilities to enter into long-term arrangements with generators and suppliers will ensure that any perceived risk is mitigated by guaranteed cost recovery.

Implementation experience with state RPS programs nationwide confirms that RE development has been most successful where developers have been able to secure long-term contracts with creditworthy counterparties. Therefore, many states require utilities to sign long-term power purchase agreements with eligible renewable energy developers. States with contracting requirements include California (10+ years), Colorado (20+ years), Connecticut (150 MW for 10+ years), Iowa, Maryland (15+ years for solar only), Montana (10+ years), Nevada (10+ years), North Carolina (solar), and Pennsylvania. Where long-term contracts are required, RPS policies have largely been successful. However, in states where short term RECs dominate over long-term contracting, RPS policies appear to be more costly to achieve targets.

[5] RPS programs that include solar/DG set-asides include Arizona, Colorado, Delaware, Maryland, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, Ohio, Pennsylvania and Washington.