

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Policy and Steering Committee on Ways and Means

BILL: CS/CS/CS/SB 1154

INTRODUCER: Policy and Steering Committee on Ways and Means; Committee on Environmental Preservation and Conservation; Committee on Communications, Energy, and Public Utilities; and Senator King

SUBJECT: Relating to Energy

DATE: April 21, 2009 **REVISED:** _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Wiehle	Caldwell	CU	Fav/CS
2.	Wiggins	Kiger	EP	Fav/CS
3.	Weiss	Kelly	WPSC	Fav/CS
4.				
5.				
6.				

Please see Section VIII. for Additional Information:

- | | | |
|------------------------------|-------------------------------------|---|
| A. COMMITTEE SUBSTITUTE..... | <input checked="" type="checkbox"/> | Statement of Substantial Changes |
| B. AMENDMENTS..... | <input type="checkbox"/> | Technical amendments were recommended |
| | <input type="checkbox"/> | Amendments were recommended |
| | <input type="checkbox"/> | Significant amendments were recommended |

I. Summary:

The bill amends Florida’s renewable energy policy described in section 366.92, F.S., and defines clean energy in specific categories based on the energy source and level of greenhouse gas emissions (GHG).

The bill creates a clean portfolio standard (CPS) and uses the Public Service Commission’s (PSC) Renewable Portfolio Standard (RPS) as a model, specifically:

- Creates a definition of “clean energy” using the statutory definition of renewable energy and adding nuclear energy placed in commercial service after the effective date of this act and integrated gasification combined cycle with carbon capture and sequestration plans approved by the Department of Environmental Protection (DEP).
- Retains “20 percent by 2020” and the phase-in schedule and amounts requested by the Governor and recommended by the PSC, but limits the amount of nuclear energy and integrated gasification combined cycle energy to be credited toward the CPS requirement to 25 percent of the total clean portfolio standard requirement for each year.

- Retains two conditions for being excused from the requirement: 1) insufficient supply of clean energy and clean energy credits, 2) cost of compliance is cost-prohibitive in that it exceeds two percent of the investor-owned electric utility's total annual revenue from retail sales of electricity.
- Excludes expenses for nuclear and integrated gasification combined cycle energy sources from the cost-of-compliance calculations, and retains the concept of a division of compliance cost allocations among types of renewable energy.
- Requires the PSC to adopt rules to assist investor-owned electric utilities seeking Florida clean energy projects to ascertain the least-cost alternatives within each class of clean energy sources.
- Requires the PSC to implement the CPS, including the creation of a market and how clean credits can be determined and the method of cost recovery.

The bill encourages electric utilities to participate in joint-ownership, when economically feasible, of the conversion of nuclear power plants to biomass plants.

The bill authorizes a gas utility to establish a surcharge for the purpose of constructing natural gas installation in areas that lack natural gas service.

The bill clarifies that the terms of members of the Florida Energy and Climate Commission (FECC) begin on October 1 and end on September 30. Further, it requires the FECC to report to the Legislature ways in which to increase energy-efficiency practices of low-income households.

The bill clarifies that the existing provision of one-eighth cent per gallon tax shall apply to alternative fuel containing alcohol.

The bill removes solar generating facilities from the definition of electrical power plants for the purposes of complying with the Florida Electrical Power Plant Siting Act.

The bill provides for an effective date of July 1, 2009.

The bill substantially amends the following sections of the Florida Statutes: 366.92, 366.93, 377.6015, 403.503 and 525.09. It also creates sections 366.99 and an unnumbered section of the Florida Statutes.

II. Present Situation:

During the 2007 Regular Session, the Legislature directed the PSC to conduct a study and recommend an appropriate RPS to the Legislature.¹ However, the Governor vetoed this legislation, stating that it did not go far enough to reduce GHG and produce renewable energy. During the summer of 2007, Governor Crist issued three executive orders addressing issues related to global climate change. The executive orders established targets for GHG, directed the DEP to develop a regulatory rule to cap electric utility GHG emissions, and created the Governor's Action Team on Energy and Climate Change.

¹ s. 39, CS/HB 7123, Engrossed 2.

Later that year, the Governor requested that the PSC adopt a rule to require that utilities produce at least 20 percent of their electricity from renewable sources, with a strong focus on solar and wind energy.² While Governor Crist did not set a time frame for the RPS requirement in the Executive Order, a press release on the order stated: “Governor Crist also requested that the Public Service Commission adopt a 20 percent RPS by 2020...”³

In 2008, ch. 2008-227, L.O.F., amended s. 366.92, F.S., to direct the PSC to adopt rules for an RPS requiring each IOU to supply renewable energy to its customers directly, by procuring, or through renewable energy credits.⁴ The legislation required the PSC to submit a rule to the Legislature by February 1, 2009, and provided that the rule could not be implemented until ratified by the Legislature.

The PSC held workshops to develop an RPS rule and filed a report containing recommended (but not finalized and adopted) rules.⁵ The RPS recommendation includes the 20 percent by 2020 requirement. It applies only to investor-owned utilities (IOUs), excluding municipal and cooperative utilities. Each IOU is required to either produce through self-build renewable facilities or purchase renewable energy credits (RECs)⁶ from other utilities or non-utility renewable energy producers located in Florida. The renewable energy itself will still be used by the producer or sold to the utility at avoided costs.

The recommendation phases-in the requirement in the following amounts and timeframes, with percentages based on each investor-owned utility’s prior year’s retail sales.

- 7 percent by January 1, 2013.
- 12 percent by January 1, 2016.
- 18 percent by January 1, 2019.
- 20 percent by January 1, 2021.

To limit the fiscal impact on IOUs’ ratepayers, the recommendation has a cost cap of two percent of each IOU’s total annual revenue from retail sales of electricity. Based on 2007 total IOU retail sales, a two percent cap amounts to an estimated \$370 million annually.

The recommendation creates two classes of renewable energy, Class I, which is solar and wind, and Class II, which is all other forms of renewable energy.⁷ The recommendation specifies a

² s. 3, Executive Order 2007-127. There was some question whether the PSC had the authority to adopt an RPS by rule as the Legislature had not delegated this authority to the PSC at that time.

³ <http://www.flgov.com/release/9217>

⁴ s. 42, ch. 2008-227, Laws of Florida (HB 7135)

⁵ Draft RPS Rule, Florida Public Service Commission, January, 30, 2009

⁶ A renewable energy credit is a financial instrument that represents the renewable energy attributes associated with one mega-watt hour (1,000 kilowatt-hours) of renewable energy.

⁷ Renewable energy is defined by reference to s. 366.91, F.S., which defines the term to mean “electrical energy produced from a method that uses one or more of the following fuels or energy sources: hydrogen produced from sources other than fossil fuels, biomass, solar energy, geothermal energy, wind energy, ocean energy, and hydroelectric power. The term includes the alternative energy resource, waste heat, from sulfuric acid manufacturing operations.” The section defines the term “biomass” to mean “a power source that is comprised of, but not limited to, combustible residues or gases from forest products manufacturing, waste, byproducts, or products from agricultural and orchard crops, waste or coproducts from

minimum of the RPS which is required to be provided by Class I sources. Also, the rate cap is divided among classes, with Class I compliance costs capped at 1.5 percent of each IOU's total annual revenues, and Class II compliance costs capped at 0.5 percent of those revenues.

The recommendation establishes a penalty for noncompliance with the RPS, to be paid by stockholders, of up to 50 basis points on the IOU's authorized rate of return. As such, it is considered to be a mandatory standard, rather than a goal. However, the recommendation includes two conditions under which an IOU may be excused from compliance: when the supply of IOU-produced renewable energy and available RECs is not sufficient to meet the RPS or when the cost of compliance is cost prohibitive, in that it exceeds the two percent cap on costs of compliance.

The recommendation includes a requirement that each IOU issue a request for proposals for renewable energy resources every two years. This would use a market-based approach to encourage renewable energy developers to competitively participate in the Florida renewable energy market. It will also provide information necessary to evaluate the cost-effectiveness and need for an IOU self-build option.

The amount of renewable energy and RECs that will be available is not known and cannot be predicted with any level of certainty. However, it can be predicted with some certainty that until sufficient amounts of RECs are being produced to create price competition, the price for any amount of available RECs will equal or exceed the amount remaining on the cost caps after subtracting any IOU self-build costs. As such, at least initially, it is more likely that the requirement that will be met is not the express RPS requirement, but the de facto requirement to spend at least two percent of annual revenues from retail sales attempting to meet the RPS.

The PSC report also included a staff recommendation that any RPS include "clean" energy, consisting of energy from the following sources:

- New nuclear facilities or uprates approved by the PSC since 2006.
- Integrated gasification combined cycle (coal-fired) plants with carbon capture and sequestration plans approved by the Department of Environmental Protection.
- Energy savings associated with efficiency improvements to existing utility generation facilities.
- Savings associated with customer energy efficiency programs.

Chapter 2008-227, L.O.F., provides rulemaking authority to the PSC for providing annual cost recovery and incentive-based adjustment to authorized rates of return on common equity to IOUs to incentivize renewable energy. Further, upon legislative ratification of the RPS, the PSC is authorized to approve project and power sales agreements with renewable power producers, and the sale of renewable energy credits needed to comply with the RPS. Subsections 366.9(3) and (4), F.S., require a utility to pay no more than full avoided costs, which are comprised of energy

and capacity estimated costs.⁸ The bill provides that, if there is ever a conflict between these two provisions, the RPS section will supersede s. 366.91 (3) and (4), F.S.

Further, ch. 2008-227, L.O.F., specifies that each IOU must submit a report to the PSC describing the steps that were taken during the previous year and the steps that will be taken in the future to add renewable energy to the IOU's energy supply portfolio. The report will indicate whether the IOU was in compliance with the RPS during the previous year and how it will comply with the RPS in the upcoming year.

Until ratification of the rule by the Legislature, the PSC is required to provide for full cost recovery, under appropriate cost-recovery clauses, of all reasonable and prudent costs incurred by an IOU for a project to place up to a total of 100 megawatts in new renewable energy capacity for each IOU. This is acceptable if the projects do not exceed the projected construction cost per kilowatt of at least one electric power plant for which the PSC has granted a determination of need, pursuant to s. 403.519, F.S., within the prior ten years.

Chapter 2008-227, L.O.F., further directs municipal electric utilities and rural electric cooperatives to develop standards for the promotion, encouragement, and expansion of the use of renewable energy resources and energy conservation and efficiency measures. Finally, ch. 2008-227, L.O.F., requires that, on or before April 1, 2009, and annually thereafter, each municipal electric utility and electric cooperative submit to the PSC a report that identifies those standards.

Section 366.93, F.S., requires the Public Service Commission to establish alternative cost recovery mechanisms for the recovery of costs incurred in the siting, design, licensing, and construction of a nuclear or integrated gasification combined cycle power plant. The mechanisms must: be designed to promote utility investment in nuclear or integrated gasification combined cycle power plants; allow for the recovery in rates of all prudently incurred costs; and include:

- Recovery of any preconstruction costs.
- Recovery of the carrying costs on the utility's projected construction cost balance associated with the nuclear or integrated gasification combined cycle power plant.

It is the policy of the state that, while recognizing the need for increased power generation facilities, the state must ensure through available and reasonable methods that the location and operation of electrical power plants will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life and will not unduly conflict with the goals established by the applicable local comprehensive plans.⁹ The Florida Electrical Power Plant Siting Act (PPSA) was passed by the Legislature for the purpose of minimizing the adverse impact of power plants on the environment.¹⁰

⁸ Unless the producer is unlikely to provide any capacity value to the utility of the electric grid during the contract time, in which case, capacity will not be included in the utility's full avoided cost estimate.

⁹ s. 403.502, F.S.

¹⁰ Tampa Elec. Co. v. Garcia, 767 So. 2d 428 (Fla. 2000), referring to ss. 403.501 - 403.518, F.S.

The Department of Agriculture and Consumer Services (DACS) collects a fee for the purposes of defraying the expenses to inspect, test, and analyze petroleum fuels in the state. The fee paid to the DACS is a charge of one-eighth cent per gallon on all gasoline, kerosene (except when used as aviation turbine fuel), and #1 fuel oil for sale or use in this state.¹¹

III. Effect of Proposed Changes:

Section 1 amends s. 366.92, F.S., to create a clean portfolio standard, which establishes a minimum percentage of total annual retail electricity sales by an electric utility to consumers in Florida that must be supplied by clean energy or clean energy credits produced in Florida.

This section defines the term “clean energy” to include all types of energy now included in the statutory definition of “renewable energy” plus nuclear energy placed in commercial service after the effective date of this act and integrated combined cycle with carbon capture and sequestration plans approved by the DEP. Clean energy also includes waste heat thermal energy produced by a combined heat and power system placed in service in Florida after July 1, 2009, and used to produce biofuel and biofuel coproduct. “Combined heat and power system” is defined as a system that simultaneously or sequentially generates electricity and thermal energy from the same primary energy source.

It creates the following three categories of clean energy:

- “Class I clean energy source” means Florida clean energy resources derived from wind or solar energy systems.
- “Class II clean energy source” means clean energy from all other sources.
- “Class III clean energy source” means clean energy derived from nuclear energy or integrated combined cycle with carbon capture and sequestration plans approved by the DEP.

This section requires each electric utility to meet or exceed the following clean portfolio standard through the production of clean energy or the purchase of clean energy credits:¹²

- By January 1, 2013: 7 percent of the prior year’s retail electricity sales.
- By January 1, 2016: 12 percent of the prior year’s retail electricity sales.
- By January 1, 2019: 18 percent of the prior year’s retail electricity sales.
- By January 1, 2021: 20 percent of the prior year’s retail electricity sales.

No more than 25 percent of the amount of the clean portfolio standard requirement for each year may be from Class III clean energy sources. A Florida utility that is a member of the South Eastern Reliability Council instead of the Florida Reliability Coordinating Council may purchase clean energy credits based on Class III energy sources located in other states.

¹¹ s. 525.09, F.S.

¹² A clean energy credit is a financial product that represents the unbundled, separable, clean renewable attribute of clean renewable energy produced in Florida and is equivalent to 1 megawatt-hour of electricity generated by a source of clean renewable energy located in Florida.

To provide the Legislature with information on the progress toward meeting this requirement, the PSC must, by February 1, 2010, and each year thereafter, report to the Legislature detailing further rulemaking activities; developments in production of clean energy; how much and what types of clean energy are available in various regions of the state and at what cost; and any impediments to further increases in clean energy in Florida.

Except under stated circumstances which require excusal from compliance, any investor-owned electric utility that fails to meet or exceed its CPS is subject to a penalty pursuant to s. 366.095, F.S., for each day such failure continues, with the penalty not recoverable from the utility's ratepayers.¹³ Technically, the clean energy requirement applies to all electric utilities, including municipal and cooperative utilities. However, the bill contains no enforcement mechanism for municipal and cooperative utilities and so is not mandatory for these utilities.

The PSC must excuse an investor-owned electric utility from compliance with the CPS under the following circumstances.

- The supply of energy and clean energy credits is not adequate to satisfy the CPS.
- The cost of producing clean energy and securing clean energy credits is prohibitive in that the total costs of compliance with the CPS exceeds two percent of the investor-owned electric utility's total annual revenue from retail sales of electricity.

The cost of compliance with the CPS includes the following.

- The costs associated with the purchase of clean energy credits.
- The costs paid by the utility which are associated with the clean energy credit market.
- The portion of the utility's cost of its self-built Florida clean energy resource which exceeds the cost to the utility of the generation source it would have otherwise built or the energy or capacity, or both, it would have purchased from another source.

Expenses for Class III clean energy sources are not to be included in the cost of compliance calculations.

The cost of compliance must be allocated separately for Class I and Class II clean energy sources, and for each class, the total cost of compliance is prohibitive if such costs exceed one percent of the investor-owned electric utility's total annual revenue from retail sales of electricity.

Each investor-owned electric utility seeking to construct a Florida clean energy project must select the technology and project determined as most likely to be cost-effective for the general body of ratepayers for that clean energy technology class. In determining the most cost-effective construction option and in purchasing clean energy credits, an investor-owned utility must seek the least cost alternatives within each class of clean energy sources. The method of determining

¹³ Section 366.095, F.S., provides the penalty for refusal to comply with or to willful violation of any lawful PSC rule or order or any provision of chapter 366. The penalty is not more than \$5,000 for each offense. Each day that the refusal or violation continues constitutes a separate offense. Each penalty is a lien upon the real and personal property of the entity, enforceable by the commission as a statutory lien under chapter 85.

the least cost alternative is to be determined by the PSC and may include requests for proposal, auctions, or another method.

A clean energy credit remains the property of the owner of the clean energy resource from which it was derived until it is sold or transferred.

The commission is directed to adopt rules providing for: implementation of the CPS; determination of the method of establishing least cost construction or credit purchase options; determination of what entities are eligible to produce clean energy credits; recovery of costs of compliance with the CPS, with these costs to appear as a separate line item on each customer's bill; filing of reports by the utilities concerning compliance with the CPS; and creation of a clean energy credit market.

Section 2 amends s. 366.93, F.S., on advance cost recovery for nuclear power plants, to encourage all electric utilities in this state to pursue the joint-ownership of nuclear power plants. This section authorizes the PSC to determine whether it would be more cost-effective to convert the existing generating plant to a biomass plant, and, if so, to allow for the recovery of the costs of conversion in base rate charges over a time period to be determined by the PSC.

Section 3 creates s. 366.99, F.S., to be referred to as the Natural Gas Act, which allows a natural gas utility that files a petition to establish or modify a carbon-reduction surcharge. The surcharge will be used to construct eligible installations in geographic areas of this state that are unserved or underserved with natural gas service. The fee can last for no more than five years, and the total amount of these fees in effect in any one year cannot exceed two percent of the utility's total annual non-fuel revenue for the prior year. It provides for true-up procedures to ensure that there are no under- or over-charges. This section stands repealed on December 31, 2014, unless the Legislature acts to reenact it; however, any fees approved prior to repeal, and the related procedures, remain in effect for the full term of all eligible installations.

Section 4 amends s. 377.6015, F.S., to clarify that the terms of members of the Florida Energy and Climate Commission begin on October 1 and end on September 30.

Section 5 amends s. 403.503, F.S., to remove the requirement for solar generating facilities to comply with the Florida Electrical Power Plant Siting Act.

Section 6 amends s. 525.09, F.S., to clarify that the one-eighth cent per gallon of gas tax used to fund the DACS petroleum inspection program applies to alternative fuel containing alcohol.

Section 7 requires the Florida Energy and Climate Commission to prepare a report to the Legislature by December 1, 2009, that:

- Identifies methods of increasing energy-efficiency practices among low-income households.
- Determines the statewide impact of improving the level of the energy efficiency of rental housing stock, including, but not limited to, the environmental benefits of the improvements and the potential fiscal impact with respect to property tenants, owners, and landlords and to the economy.

- Provides recommendations for implementing energy efficiency practices among residents of low-income households.

Section 8 provides that the bill takes effect July 1, 2009.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

According to the PSC rule report, two percent of total retail sales for all investor-owned utilities combined amounts to an estimated \$370 million annually. According to the PSC's Statistics of the Florida Electric Utility Industry, 2007 (page eight), total investor-owned utility retail sales for that period were 176,561 gigawatt hours. If the \$370 million is divided by the 176,561 gigawatt hour total, the result is \$2095.59 per gigawatts hour, which translates to \$.002 per kilowatt hour. The average residential customer uses 1,200 kilowatt hours of electricity a month, so the average residential customer monthly bill impact is \$2.58 (\$.002 per kilowatt hour multiplied by the 1,200 kilowatt hours).

According to proponents of the Natural Gas Act, the maximum rate increase to a residential customer is approximately \$6.28 per year, or an average of \$0.52 per month, per eligible project. However, the bill allows for cost recovery for costs related to providing gas service to underserved or unserved area. Therefore, the actual impact to the ratepayers may be more substantial.

Electricity providers may realize profits from the sale of clean energy credits to other providers.

C. Government Sector Impact:

Beginning in 2011, ten percent of all gasoline sold in the state must include ethanol. According to the DACS, approximately 70 percent of all of the gasoline blends that

contain ethanol have already complied with the anticipated December 2010 deadline. The bill clarifies that the fuel inspection fee applies to ethanol and is projected to provide the DACS with \$1.1 million in annual revenue. The DACS is currently not able to collect this fee without the inclusion of ethanol in the definition of gasoline.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Additional Information:

- A. **Committee Substitute – Statement of Substantial Changes:**
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS/CS/CS by Policy and Steering Committee on Ways and Means on April 21, 2009:

This committee substitute:

- Expands the definition of clean energy to include waste heat thermal energy produced by a combined heat and power system placed in service in Florida after July 1, 2009, and used to produce biofuel and biofuel coproduct.
- Defines “combined heat and power system” as a system that simultaneously or sequentially generates electricity and thermal energy from the same primary energy source.
- Provides that, for combined heat and power systems placed in service after July 1, 2009, one clean energy credit shall be produced for every 3.412 million British thermal units of waste heat thermal energy used to produce biofuel and any associated coproducts.
- Expands the definition of low-income households to include households determined to be low-income by a housing authority, pursuant to s. 421.03, F.S.

CS/CS by Environmental Preservation and Conservation Committee April 6, 2009:

The committee substitute:

- Specifies that in order to achieve a clean energy standard an electric utility will not be required to produce or purchase any Class III clean energy and will not be penalized for not acquiring any energy from a Class III energy source;
- Removes the requirement for nuclear utilities to have a joint ownership agreement sharing construction costs in exchange for projected capacity;
- Extends the recovery cost clause for utilities to provide natural gas service to areas of the state that are unserved or underserved;

- Clarifies that the existing provision of one-eighth cent per gallon tax shall apply to alternative fuel containing alcohol; and
- Removes solar generating facilities from the definition of electrical power plants for the purposes of complying with the Florida Electrical Power Plant Siting Act.

CS by Communications, Energy, and Public Utilities Committee on March 31, 2009:

The committee substitute:

- Creates a clean portfolio standard requiring investor-owned utilities to produce specified amounts of clean energy or purchase clean energy credits from other producers, including definitions, a phase-in schedule and requirements, conditions for being excused from the requirement, cost-of-compliance calculations, and reporting requirements;
- Encourages electric utilities to pursue the joint-ownership of nuclear power plants;
- Authorizes the Public Service Commission to consider, when it is more cost-effective, ordering the conversion of an existing plant to biomass instead of retiring the plant when it is made superfluous due to operation of a nuclear plant;
- Creates the Natural Gas Act to allow a natural gas utility to establish a carbon reduction fee to be used by that utility to construct eligible installations in areas that are unserved or underserved with natural gas service, with restrictions on the time and amount of the charge;
- Clarifies that the terms of members of the Florida Energy and Climate Commission begin on October 1 and end on September 30;
- Preserves the full amount of the fuel inspection fee revenue by adding alternative fuel containing alcohol to the list of fuels for which a fee must be paid;
- Creates a carbon reduction charge on all types of motor vehicle fuels, including diesel, of one cent per gallon, providing for deposit of the charge; and
- Requires the Florida Energy and Climate Commission to report to the Legislature on increasing energy-efficiency practices among low-income households.

B. Amendments:

None.