

# Green Energy Portfolio Standard

## I. Goal

Develop and deploy Green Energy in Florida, including renewable energy, energy efficiency and energy conservation.

## II. Green Energy Portfolio Standard

1. Annual Goals: Establish annual goals for qualified utilities [see II(4)(h), and hereafter referred to as “utilities”] to develop new renewable energy generation, efficiency and conservation resources whereby a percentage of their total retail energy portfolio, based on MWh delivered or forecasted, be obtained from Green Energy resources [see II(2)]. Utilities will procure Green Energy as a percentage of their total retail MWh sales from resources identified in II(2). The table below shows the structure for proposed annual percentage goals. Actual statewide goals (column B, \*) shall be recommended by the PSC to the Legislature based on a study of the potential of actual Green Energy resources in Florida. Estimated annual and total budgets over 20 years (column C), are based on total statewide electric sales (in 2005, \$20 billion) multiplied by a 1% Affordability Rate Cap, then multiplied by an estimate of annual increases in utility growth of 3%. This shows the magnitude of potential utility expenditures on Green Energy resources. Using these assumptions, over 20 years Florida utilities will invest up to \$5.4 billion in Green Energy.

A	B	C
Year	Annual % of Retail Sales from Green Energy	Upper Limit of Total Utility Annual Expense (1% of Revenues) and Consumer Rate Impact (\$ millions) <sup>1</sup>
2010	*	200
2011	*	206
2012	*	212
2013	*	219
2014	*	225
2015	*	232
2016	*	239
2017	*	246
2018	*	253
2019	*	261
2020	*	269
2021	*	278
2022	*	285
2023	*	294
2024	*	303
2025	*	312
2026	*	321
2027	*	331
2028	*	341
2029	*	351
20 years	Cumulative Total	5,378

<sup>1</sup> Column C is illustrative only. The upper limit of Green Energy funding, the Affordability Rate Cap, will be identified each year by each qualified utility. See section II.7 for further explanation.

2. Categories of Green Energy Development: (In a subsequent draft, all technologies must be fully defined and specified.)

Utilities shall procure their percentage of Green Energy each year from any of the following technologies:

- i. Solar photovoltaics
- ii. Solar thermal
- iii. End-use energy efficiency
- iv. Energy Conservation
- v. Measures that reduce end use energy consumption
- vi. Biomass (with land management)
- vii. Biofuels
- viii. Wind
- ix. Landfill methane
- x. Methane digester or wastewater treatment
- xi. Geothermal
- xii. Ocean energy – thermal, tides, currents or waves
- xiii. Transmission or distribution system efficiency improvements
- xiv. Power plant efficiency improvements
- xv. Waste-to-energy
- xvi. Hydro power
- xvii. Fuel cells (renewable-resource-derived)
- xviii. Combined heat and power
- xix. Thermal storage
- xx. Other resources identified by individual utilities and approved by the PSC. Furthermore, the PSC may consider assigning greater weight to technologies and programs that yield carbon-free kWh.

3. Green Energy Development – Use of Credits: Each year utilities shall, alone or with others, develop, invest in, participate in, or account for Green Energy projects. Utilities may purchase Green Energy credits from other utilities, renewable energy producers, credit marketers or energy consumers that have permanently reduced their energy consumption (based on the useful life of the measure). One MWh equals one Green Energy credit. Credits may only be counted once (i.e., the entity generating the Green Energy may either use the credit or sell the credit to another entity; both entities may not use the same Green Energy credit). Credits must be verified by metering or statistical evaluation.

4. Considerations:

- a. Direct and indirect costs may be included in utilities' Green Energy expenses.
- b. Utilities may earn a rate of return on their capital investments in Green Energy.
- c. In-state and out-of-state Green Energy output is equal to one credit per MWh toward a single utility's annual goal. Utilities may purchase Green Energy credits from other entities, as long as they are verified.
- d. Excess Green Energy output, purchases or savings may be used to meet annual goals for subsequent years.
- e. For the purposes of counting Green Energy credits, utilities may use projects or programs in effect on or after January 1, 1997, and that are still producing Green Energy. Previous Green Energy may not be counted; however, savings or production in the current year may be counted.
- f. Utilities may pass all costs incurred to meet Green Energy goals on to customers.
- g. Customer education may account for up to 15% of annual Green Energy expenditures and be counted toward the utility's annual Green Energy budget.

- h. Qualified Utilities: The Green Energy Portfolio Standard applies only to utilities with retail sales of 500,000 MWh per year and greater. Utilities with sales below 500,000 MWh per year will be encouraged to comply voluntarily.
  - i. The Green Energy Portfolio Standard shall be evaluated every three years by the PSC to determine if the goals and Affordability Rate Cap they are set properly compared to available Green Energy resources and costs, and a report shall be made every three years to the Legislature.
  - j. If the federal government promulgates a renewable or Green energy portfolio standard that would supersede this state standard, this state standard shall be repealed and utilities shall be automatically relieved from meeting the Florida Green Energy Portfolio Standard.
  - k. Solar photovoltaics shall receive a credit of 1.5 times for every MWh generated.
  - l. Ultimately, the goal of this Green Energy Portfolio Standard is to replace existing or develop new electric generation that is low-carbon-emitting or carbon-free, as an important part of reducing greenhouse gas (GHG) emissions. One viable and important technology that meets this criterion for future generation is absent from the list in II(2) – Nuclear Energy. Public power utilities believe that nuclear energy is vital to powering continued growth in Florida, and while not considered a traditional “green” resource, it can provide a significant quantity of cost-effective energy that is free of GHG emissions. Furthermore, public power utilities believe that 1) such power plants require considerable land, water and other statewide resources, and 2) smaller utilities may not have the scale to build a nuclear power plant on their own. Therefore, public power utilities should be allowed full participation in nuclear power plants developed by others in proportion to statewide load share.
5. Green Energy Measurement and Verification: Green Energy project impacts shall be verified by metering, or for efficiency and energy conservation, confirmed by statistical evaluation that conforms to industry-accepted standards for measurement. Costs for measurement and verification may be included in the Green Energy funding, but shall not exceed 15% of the annual budget for Green Energy. Impacts of customer education may be included in the measurement and verification of the total impact of a utility’s Green Energy efforts.
6. Annual Reporting: Utilities shall report annually to the PSC the status of achieving their Green Energy goals set forth in II(1), and if they do not achieve their goal for that year, an explanation describing the reasons. The report shall include a disclosure of the technologies and measures used, and their contribution (in MWh) to achieving Green Energy goals.
7. Green Energy Funding, Cost Effectiveness and Affordability Rate Cap:

Each qualified utility shall be solely responsible for determining the funding necessary to meet its percentage goal identified for that year.

Utilities shall choose Green Energy resources that achieve the greatest benefit versus cost to the utility, consistent with the utility’s resource availability, load profile, or customer needs. If the cost of procuring Green Energy to achieve the annual goal for a particular year exceeds the utility’s annual Green Energy budget, it shall only be required to purchase/spend the budgeted amount and it shall report its efforts in its annual report to the PSC. If the available Green Energy does not match the utility’s resource, load profile, or customer needs, or would be detrimental to the utility’s operations (as determined by the utility and justified to the PSC in its annual report), it shall not be required to procure such Green Energy and include the reason in its annual report.

The annual investment in Green Energy shall include an Affordability Rate Cap, and be calculated on a system average basis as 1% of the utility’s revenues, calculated to include its

combined base rate, fuel costs and other regulatory costs (e.g., environmental). It shall exclude local, state and federal taxes, general fund transfers and franchise fees.

For example, if the goal for a particular year is to achieve a Green Energy goal of 2%, the utility may comply in one of two ways. It may develop, invest in, or participate in Green Energy projects or purchase Green Energy credits. The budget for such investment shall be set at 1% of electric revenues. Conversely, if the utility achieves the 2% Green Energy goal by spending less than 1% of electric revenues, it is not required to spend the entire 1%. If the utility chooses to, however, it may spend more than the 1% Affordability Rate Cap.

Furthermore, if a utility purchases renewable energy or invests in a renewable energy generator, the only cost that may be applied to the Affordability Rate Cap is the marginal cost above the utility's avoided cost for that energy and/or capacity.

8. Green Energy Goal Non-Achievement: If a utility does not achieve the goals set forth in II(1), it shall describe its reasons in its annual report to the PSC. On a statewide basis, annual reports to the PSC shall be used by the PSC to evaluate Green Energy goals and investments, and recommend to the Legislature if goals or funding need to be adjusted. If a utility does not meet its annual percentage or funding goals, on average, for five consecutive years, in the sixth year it must participate in the Alternate Program [II(9)] or be subject to the rules for Non-Compliance [II(10)]. Payments shall be made that reflect the appropriate budget for the first year of the five-year time frame.
9. Alternate Program: A utility may choose to invest in Green Energy according to the budget prescribed in II(7), in lieu of or in combination with its own Green Energy projects or programs. It may pay up to 100% of its Green Energy budget to any or a combination of the following: a state fund that may be used for Green Energy grants, to another utility to develop Green Energy projects and programs, or to a qualified state university or research center for research, development and/or demonstration of Green Energy.
10. Non-Compliance: If a utility does not invest in Green Energy according to the Affordability Rate Cap prescribed in II(7), it shall make a payment equal to its Green Energy budget multiplied by 1.1 to a state fund that may be used for Green Energy grants.