Renewable Energy: Investment, Jobs and Protection for Ratepayers

Renewable energy is poised to expand investment, bring relief to unemployed Floridians and insulate ratepayers from the electricity price shocks of conventional energy sources. ***NOW*** is the time to act.[1]

Renewable Energy Protects Ratepayers Through Diversification

- Of the three main electric power choices facing Florida – development of natural gas power plants, nuclear plants, and renewable energy – the renewable option ultimately costs the consumer less.

- Statewide, 2006 average residential rates were 41 percent higher than in 2000, without any significant investments in clean energy.[2] Those price spikes were created by spiking fossil fuel costs. Fossil fuels, especially natural gas will continue to be high price-volatility fuel sources in the future – with natural gas comprising over 50% of fuel for electricity by 2013.[3]

  Additionally, early cost recovery starting this year for proposed nuclear plants is slated to drive up Progress Energy's ratepayer bills by up to 25%. Construction costs estimates for nuclear units have tripled in the last several years and are expected to increase – placing enormous risk on the backs of ratepayers. This year, Florida consumers can expect substantial price spikes from Progress Energy, Florida Power and Light (FPL), and Tampa Electric (TECO):

Progress: 25% ↑	**FPL: 16% ↑**	**TECO: 12% ↑**

- Renewable energy sources have stable or no fuel costs at all. Additionally, capital costs are dropping steadily for renewable energy sources. For instance, the price per watt at peak of photovoltaic solar has dropped from $27 in 1982 to $4 today.[4]

- Renewable resources can deliver new electricity generation capacity much faster.

- Moreover, RPS rate impacts are relatively low – at most a few percentage points rate impact, as opposed to the double-digit rate increases from fossil fuel and nuclear power sources cited above.[5]

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[1] REAL is a consortium of renewable energy providers, environmental and clean energy non-profit organizations committed to a robust renewable energy market in Florida.
[2] Energy Information Administration, at http://tonto.eia.doe.gov/oog/info/ngw/ngupdate.asp
[3] *A Review of Florida Electric Utility 2005 Ten Year Site Plans*, Florida Public Service Commission, December 2005.
[4] Photovoltaic Industry Statistics, at http://www.solarbuzz.com/StatsCosts.htm
[5] Wiser & Barbose, LBNL, *Renewable Portfolio Standards in the U.S.: Status Report with Data Through 2007,* April 2008.

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Renewable Energy Poised to Expand State's Economic Base and Create Jobs

- The jobless rate in Florida hit a 16-year high of 8.1% in December. The state lost more than 255,000 jobs, or 3.2 percent over the year, worse than the 1.9 percent decline nationwide. Construction accounted for 30 percent of the jobs lost. More than 750,000 Floridians remain unemployed.

- Recent studies have shown job creation achieved by solar generation to be about 15–30 for each MW (mega-Watt, 1000 kilo-Watts). The prospect of job creation in Florida is supported in a recent Navigant Consulting, Inc. report where the lower range represents utility scale and/or no manufacturing in the state, and the higher range represents mostly distributed installation or a heavy manufacturing base in the state.

- A 2007 University of Florida IFAS economic study considered wood-fueled plants of 20-40 MW in size and concluded an average of 9 direct jobs are created per MW with value-added benefits of $13 million per year to the local economy.

Jobs Created per MW of Capacity[6]:	**Solar**	**Biomass**	**Nuclear**
	15-30	**9**	**0.4-0.9**

- Additionally, 85 percent of the money spent on producing home-grown biomass power stays within a 75-mile radius of the plant – stimulating the local economies. On the other hand, electricity generated by natural gas is exported out of Florida – meaning nearly 85 percent of the dollars it costs to deliver energy to the electric grid are exported out of state.

- Florida is uniquely positioned to take advantage of renewable energy because of our immense solar and biomass resources – according to a recent report commissioned by the Public Service Commission. The Navigant Consulting, Inc. study concluded that Florida could reach 24 percent renewables by 2020 with a moderate investment. It simply requires that the right policies be in place. So, why continue condemning ratepayers to natural gas fuel price spikes and skyrocketing nuclear construction costs?

Now is the time to support an RPS policy of 20 percent renewable energy by 2020, with a reasonable cost cap that allows for meaningful renewable energy investment and job creation in Florida.

[6] Navigant Consulting, Inc. *Economic Impacts of Extending Federal Solar Tax Credits*, Final Report, September 15, 2008 (This estimate is consistent with the experience in Germany, where the government estimates that 42,000 direct jobs have been created by the installation of 1,382 MW of solar); Rahmani and Hodges, *Economic Impacts of Generating Electricity*, University of Florida/IFAS, September 2007; Lyash, *Presentation by Jeff Lyash, Progress Energy President and CEO, Progress Energy Florida*, January 13, 2009.