

Renewable Energy Developments in Florida

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Background

- 2002 HB 1601 directs FPSC to perform a study to define public policy for use of renewable resources in Florida
- Defines “Renewable Energy”
- 2003 FPSC/FDEP report on renewables



FPSC/DEP 2003 Report

- Review of renewable electric generating technologies
- Cost and economic review
- Review of policies to promote renewables
- Review of then current activities in Florida
- Net capacity = 1028 MW (as of 1/1/02)



Recent Developments

- 2005 HB 77
- 2006 SB 888
- 2007 Serve to Preserve Summit on Global Climate Change
- Three Executive Orders
- RPS workshops and rule development
- 2008 HB 7135



Standard Offers to Purchase from Renewable Sources

- Requirement of IOUs and certain Municipals to offer to purchase capacity and energy from renewable sources
- Based on full avoided costs
- FPSC adopted rules – December 2006
- Contract terms acceptable without further negotiation

Energy Bill 2006 – SB 888

- Amends and restates Florida Renewable Energy Policy
- Established Florida Energy Commission
- Florida Renewable Energy Technologies and Energy Efficiency Act
- Solar Energy System Incentive Program
- Tax exemptions for equipment for alternative energy technologies/tax credits



2007 Serve to Preserve Summit on Global Climate Change

- Governor Crist's climate change initiatives
- Partnership Agreement with Germany
- Partnership Agreement with the United Kingdom
- Three Executive Orders
- Governor's Action Team on Energy and Climate Change



Executive Order 07-126

- Reduction of Greenhouse Gas Emissions from Florida State Government
- GHG emission reduction targets for state agencies and departments
 - 10% reduction by 2012
 - 25% reduction by 2017
 - 40% reduction by 2025

Executive Order 07-128

- Establishes Governor's Action Team on Energy and Climate Change
- Development of Energy and Climate Change Action Plan
- Action team recommendations on energy-related issues

Executive Order 07-127

- Actions to reduce GHG emissions in Florida
- Establishes Florida reduction targets
 - By 2017 to 2000 levels
 - By 2025 to 1990 levels
 - By 2050 to 80% of 1990 levels
- Directs FDEP to develop rules for maximum allowable GHG emissions for Florida utilities
 - By 2017, not greater than 2000 emissions
 - By 2025, not greater than 1990 emissions
 - By 2050, not greater than 20% of 1990 emissions



Executive Order 07-127

- Requests FPSC to open the market to renewable energy technologies
 - Initiate rulemaking for a 20% RPS with strong focus on solar and wind energy
 - Initiate rulemaking to authorize net metering for residential and commercial customers



Energy Bill 2008 – HB 7135

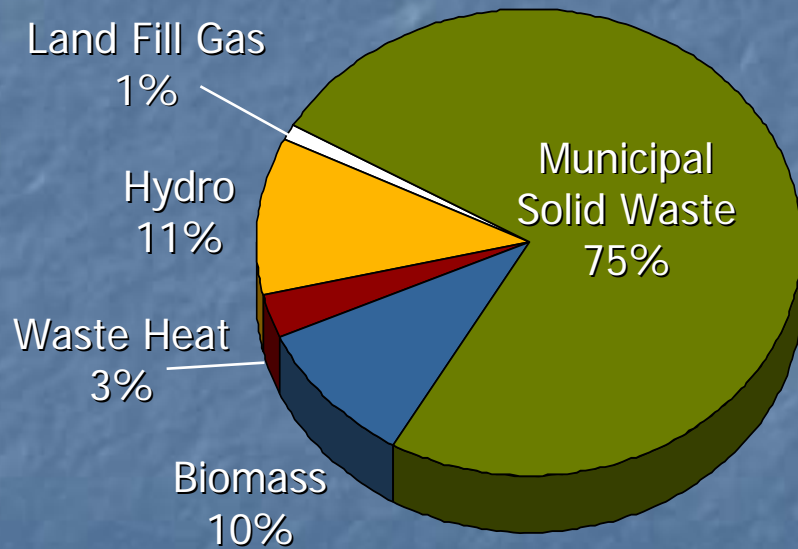
- Creates Florida Energy and Climate Commission (replaces FEC)
- Florida Climate Protection Act (cap and trade)
- Directs FPSC to draft rules for RPS by 2/1/09 for ratification by legislature
- Directs FPSC to set goals for customer-located renewable energy systems



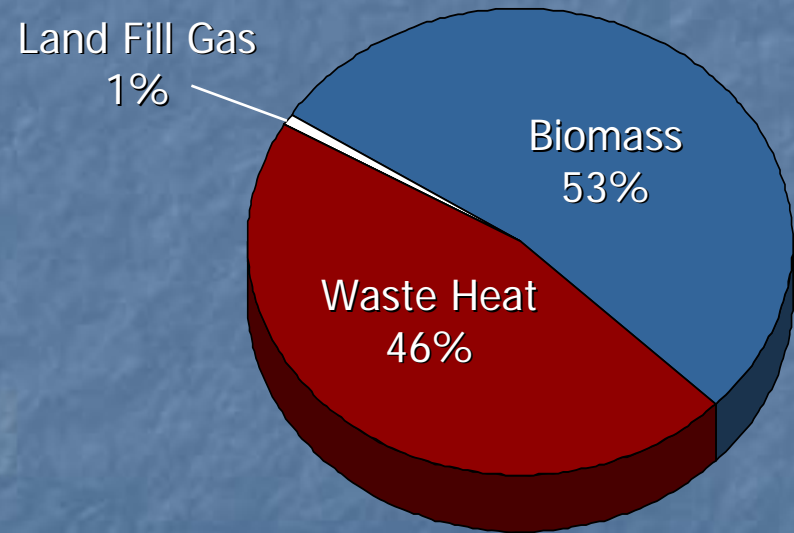
Sources of Renewable Energy Capacity in Florida

[As of December, 2007]

Firm Capacity Renewable Energy Sources by Fuel Type (507.2 MW)



Non-Firm Renewable Energy Sources by Fuel Type (615.8 MW)



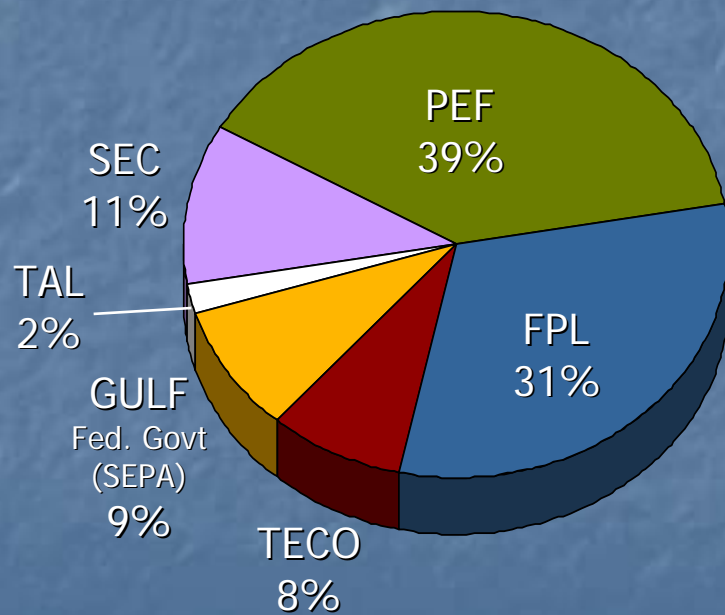
Source: FPSC Review of 2007 Ten-year Site Plans for Florida's Utilities (December 2007)



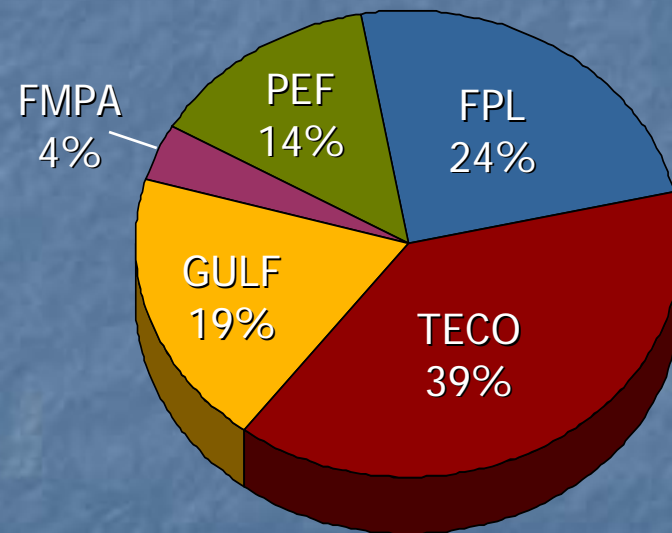
Sources of Renewable Energy Capacity in Florida By Utility

[As of December, 2007]

Firm Capacity Renewable Energy Sources by Utility



Non-Firm Renewable Energy Sources by Utility



Source: FPSC Review of 2007 Ten-year Site Plans for Florida's Utilities (December 2007)



Tampa Electric's Renewable Energy Program

- In 2000, residential and commercial customers allowed to purchase energy from renewable resources
- For each \$5 "block" of renewable energy purchased per month, TEC distributes 100 kW-hours of energy generated from renewable resources



Tampa Electric's Renewable Energy Program

- TEC's renewable energy sources
 - Biomass – organic plant material and other vegetation
 - Methane gas fired 30 kW micro-turbine from landfill
 - PV panels at MOSI, Schools and Lowry Park Zoo
- 17 million kWh of renewable energy generated or purchased
- 2007 RFP for 150 MW renewable capacity and energy



FPSC “Strawman” Rule

- Rule 25-17.400 F.A.C. – RPS
 - Initial long term renewable portfolio standards
 - By 2010, 2% of 2009 retail sales
 - By 2017, 3.75% of 2016 retail sales
 - By 2025, 6% of 2024 retail sales
 - By 2050, 20% of 2049 retail sales



FPSC “Strawman” Rule

- Reporting requirements
- Excuses for non-compliance
- Reasonable and prudent costs recoverable via ECRC
- Renewable energy credits



FPSC “Strawman” Rule

- Rule 25-17.410 F.A.C. – REC Market
 - RECs = unbundled, separable, renewable attributes of associated renewable energy
 - IOUs must establish an electronic REC market
 - Initial REC cap price of \$16/ton of GHG avoided; 2 year “life” for RECs
 - Eligible producers of RECs
 - FPSC oversight of REC market

FPSC “Strawman” Rule

- Rule 25-17.420 F.A.C. – Municipal and Rural Electric Cooperative Reporting
 - Develop standards for promotion of renewable energy resources, conservation and efficiency measures
 - Submit annual report

Next Steps

- Finalization of “Strawman” Rule by FPSC
- Submission for ratification by Legislature by February 1, 2009
- After ratification, utilities would make annual compliance filing with FPSC
- Five year review of RPS, presumably in 2014