



# RPS Development in Florida

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FPSC Workshop on RPS

Bob McGee, Marketing Services Manager  
Gulf Power Company





# A Framework for Proceeding

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1. Objectives
2. Definition
3. Assessment
4. RPS Goal levels
5. Details



# 1. Objectives

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- Determine overarching Objectives of RPS
  - Reduces confusion and conflict later
  - “First and foremost, the objectives of an RPS must be clearly identified, weighted, and prioritized... To produce the best RPS design for the state, articulating the primary objectives early in the process is important.” *from page 2 of the March 2008 FPSC Staff Summary of RPS Workshops held in 2007*



# 1. Objectives

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- CO<sub>2</sub> reduction is a top priority
  - “Florida ...shall reduce atmospheric carbon dioxide by promoting an increased use of renewable energy resources and low-carbon-emitting electric power plants.”

*HB7135 section 5, F.S. 187.201(11)*



# 1. Objectives

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- Cost Control is a top priority
  - “The commission's rule: 1. Shall include methods of managing the cost of compliance with the renewable portfolio standard,...2. Shall provide for...conditions under which noncompliance shall be excused due to a determination by the commission...that the cost of securing renewable energy or renewable energy credits was cost prohibitive.”

*HB7135 section 42, F.S. 366.92(3)(b)*



## 2. Definition

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- Clarify the definition of “Renewable Energy”
  - HB7135 does not explicitly reference F.S. 366.91(2)(a) {biomass, MSW, LFG}
  - HB7135 references both F.S. 366.91(2)(d) and F.S. 377.803 {thermal}



## 2. Definition

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- Clarify the definition of “Renewable Energy”
  - Is 366.91(2)(a), the definition of “Biomass”, applicable to the RPS?
  - Does solar thermal water heating at a residence count toward the RPS?
  - Does solar thermal water pre-heating at an electric generating plant count toward the RPS?



## 3. Assessment

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- Complete a state-wide Assessment of Renewable Energy potential and cost
  - “In developing the rule, the commission shall evaluate the current and forecasted levelized cost in cents per kilowatt hour through 2020 and current and forecasted installed capacity in kilowatts for each renewable energy generation method through 2020.”

*HB7135 section 42, F.S. 366.92(3)(a)*





## 3. Assessment

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- Begin Assessment after the definition of Renewable Energy has been clarified
- Group Renewable Energy sources by broad technology types:
  - solar, wind, hydroelectric, ocean, geothermal, biomass-direct, biomass-conversion, landfill gas, municipal solid waste, municipal liquid waste, waste heat, non-fossil hydrogen

*HB7135 section 42, F.S. 366.91(2)(a) and (d)*



# 3. Assessment

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- Assess important attributes of each technology
  - Current level of product or process maturity
    - Theoretical, Demonstration, or Commercially available
  - Projected year of commercial availability if not now
  - Current availability in Florida – kW and kWh attainable now based on technology and natural resources available in Florida
  - Projected availability in Florida – kW and kWh attainable through 2020



# 3. Assessment

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- Assess important attributes of each technology
  - Current cost in Florida - cents per kWh
  - Projected cost in Florida - cents per kWh through 2020
  - CO<sub>2</sub> emissions in lb/kWh for each technology
    - assumes CO<sub>2</sub> reduction is an important objective of RPS



# 4. RPS Goal Levels

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- Percentage of annual retail electricity sales
  - Set RPS Goal levels after
    1. Objectives are determined and
    2. Definition is clarified and
    3. Assessment of resources is completed
  - Consider all economic impacts of RPS goal levels
    - there is gold in green, but...
    - resulting higher electricity prices hurt Florida's economy



## 5. Details

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- Cost recovery, expense caps, incentives, penalties, etc.
- REC rules, administration, verification, tracking, ownership, etc.
- Etc.



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# Thank You

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