

# EXECUTIVE SUMMARY



The Florida Energy Resiliency Report is the first of its kind developed by the Florida's eleven Regional Planning Councils (RPCs) in their capacity as Economic Development Districts (EDDs). This effort began developing an Energy Resiliency Report in November 2011. This effort was a result of the BP Deepwater Horizon oil spill that led to the discharge of an estimated 206 million gallons of oil into the Gulf of Mexico. The statewide Energy Resiliency Study is about creating a more diverse energy supply and the actions that we take in advance or before an energy event to reduce or minimize the impact of an interruption to the energy supply.

## TIMEFRAME

The expansive timeframe of the Energy Resiliency Report allowed the RPCs to thoroughly analyze Florida's robust energy needs and concerns. Over 3,000 survey results helped create discussions to craft strategies and future scenarios at 9 statewide workshops. Twenty-one Case Studies were analyzed to identify early adopters and programs for new energy resiliency solutions. Confabs and discussions between the RPCs helped develop 27 strategies to help Florida become more energy resilient.

## WORKSHOPS

As part of the Energy Resiliency Study, energy workshops were held to determine each Energy Planning Area's strengths, weaknesses, opportunities, and threats, as well as general happenings in each EPA related to energy. These findings also included relative strengths of each area with respect to renewable and alternative energy technologies.

## SURVEYS

Phone and internet surveys were conducted to understand the residential and business price elasticity, temperament towards energy policies, and potential energy-related investments. The surveys interviewed both businesses and residents, which overall indicated that over 50% of Floridians were willing to invest in energy efficiency. Additional guidance was provided by stakeholders from each of five "Energy Planning Areas".

## ENERGY PLANNING AREAS



In order to address the uniqueness of Florida's regions, we divided up the state into 5 Energy Planning Areas. The EPA's were divided to align with more appropriate energy resources.

**The Panhandle EPA** has great wind potential along the I10 corridor and portions of it are in Plant Hardiness Zone 8 which allows for additional trees and biomass vegetation.

**The South Florida EPA** has access to the gulfstream, a number of islands, and Plant Hardiness Zone 10 which allows for additional trees and biomass vegetation.

**The Southwest and Central Florida EPA** have access to the gulf, lakes, and available land in their RACEC.

**The Tampa Bay/Orlando EPA** has access to the I4 Corridor, containing UF, UCF, USF, NASA, Florida Solar Energy Center, etc.

In order to address the uniqueness of Florida's regions, for purposes of this study the state is divided into five Energy Planning Areas (EPAs), which are comprised of partnerships among the eleven regional planning councils.



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## SCENARIO MODELING

Scenario modeling was performed by the regional planning councils to determine the impacts of hypothetical energy or resiliency situations. A dozen hypothetical scenarios were modeled and analyzed using REMI to determine what would happen if the scenario came to fruition. The benefits of the scenarios are of interest to decision makers and Floridians in general. Overall, these scenarios were analyzed with the following results:

### Natural Gas Disruption:

This fuel has become increasingly important in Florida, and currently is plentiful and inexpensive. Analysis shows however that a mere six month disruption or period of significant price increase could cause the state to lose \$4.2B in Gross Domestic Product in that short timeframe.

### Gas Price Increase:

Florida is very dependent on gasoline. Increase prices by 50%-175% for five years and the State loses \$28B-\$82B in Gross Domestic Product.

### Renewable Portfolio Standards:

Increase the percentage of renewable fuel sources used in Florida from the current 1% to 10% in five years, and \$6B is added to Gross Domestic Product.

### Private Energy Market:

An increase in solar installations that added 1% to construction sales and reduced electric costs by .05% each year has only a minimal impact on Gross Domestic Product.

### Electric Vehicles:

If 1% of all new vehicles sold in Florida in 2030 were electric, \$27M would be added to Gross Domestic Product.

## STRATEGY DEVELOPMENT

Strategy development and Implementation steps were the final steps in the strategy. Over 27 strategies were created to address the issue of energy resiliency in Florida. Once implemented, this preparation will counter concerns related to Florida's energy vulnerability.

The top five strategies were ranked by ease of implementation, as shown below. All these strategies were deemed to be easy or moderate to carry out, and could be implemented by different stakeholders through facilitation by Regional Planning Councils. The majority of these strategies also have a strong outreach and educational component, and some might require changes to local policies and ordinances.

## STRATEGY

- 1 Provide comprehensive education on the goals, costs and benefits, obstacles, and quality of life implications related to energy efficient community design and planning.
- 2 Adopt a broad-based program to promote efficiency and conservation using all available tools, and market a consistent message of energy efficiency and conservation through comprehensive planning and school district curricula.
- 3 Continue to conduct public opinion polling and economic modeling to support the adoption of renewable energy goals by the state and its public and private partners.
- 4 Encourage innovative energy project development through collaboration of universities, entrepreneurs, and regional expertise.
- 5 Develop and encourage Property Assessed Clean Energy (PACE) and other locally established financing programs for energy efficiency, energy conservation, and energy generation improvement programs and make available to all sectors

