Summary Report
Regional Energy Resiliency Workshop
December 11, 2012
Energy Planning Area 5

Introduction

This report summarizes the Regional Energy Resiliency Workshop hosted by South Florida Regional Planning Council (SFRPC) and Treasure Coast Regional Planning Council (TCRPC) on December 11, 2012. The purpose of the workshop was to gather input from citizens in Southeast Florida to help develop strategies for the Statewide Energy Resiliency Strategy, a project being conducted by all the regional planning councils in Florida. Workshop attendees were invited by an email announcement sent to over 5,000 individuals using a list developed jointly by SFRPC and TCRPC. The workshop was attended by 65 participants, including 11 regional planning council staff members, from six counties.

The combined regions of SFRPC and TCRPC make up Energy Planning Area 5 (EPA 5), one of five energy planning areas recognized by the regional planning councils in Florida. EPA 5 includes 7 counties in Southeast Florida: Indian River, St. Lucie, Martin, Palm Beach, Broward, Miami-Dade, and Monroe. EPA 5 stretches approximately 320 miles along the coast from Sebastian to Key West. This linear corridor is generally characterized by higher levels of urban development in the eastern portions of the counties near U.S. Highway One, and more rural development and conservation areas in the western parts of the counties.

EPA 5 is unique, because it is located at the end of the Florida peninsula and because it contains the top three counties ranking highest in population in the state: Miami-Dade, Broward, and Palm Beach. In 2012, EPA 5 had a population of 6,297,705, which accounted for 33 percent of the entire population of the State of Florida (Bureau of Economic and Business Research, Florida Estimates of Population 2012, University of Florida).

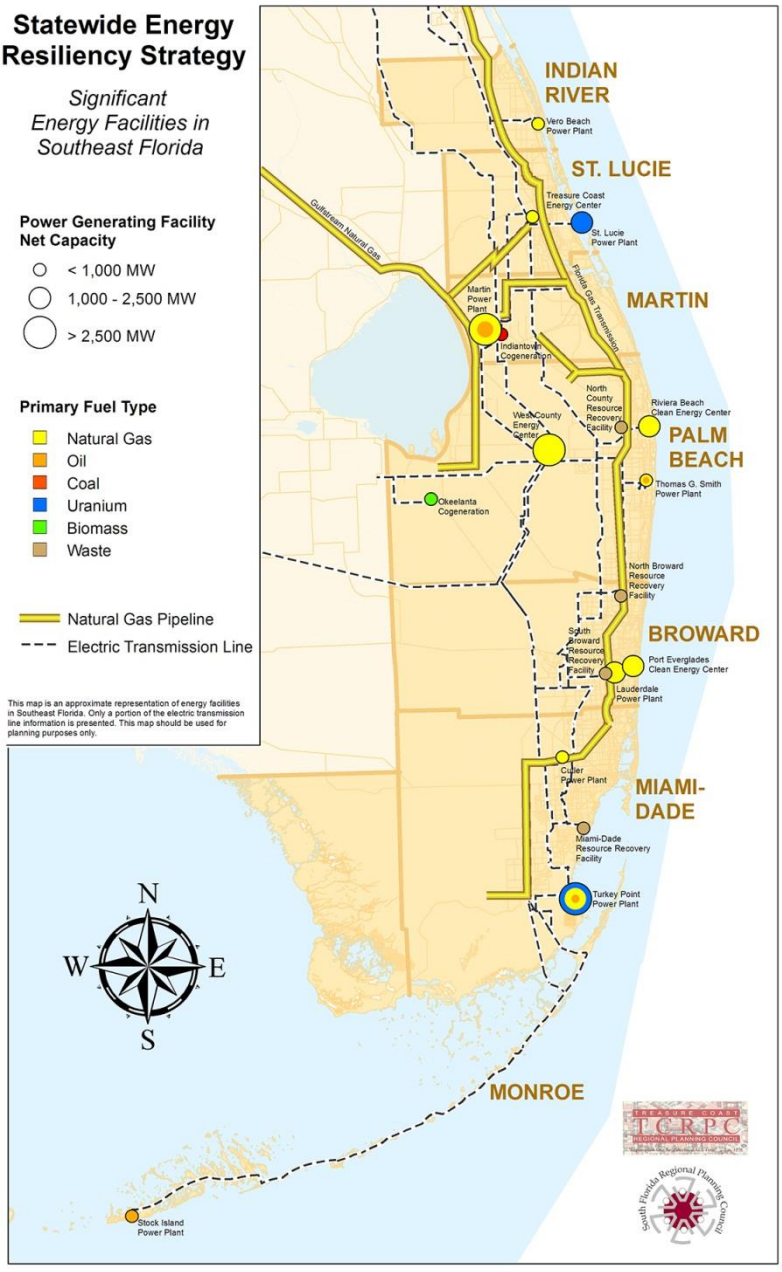
Description of the Workshop

The workshop was held from 10:00 am to 2:00 pm at the Vintage Gymnasium at the Delray Beach Center for the Arts at Old School Square in Delray Beach, Florida. The workshop opened with a welcome from Jim Murley, Executive Director of SFRPC. This was followed by a series of presentations providing an overview of the Statewide Energy Resiliency Strategy project. The overview included a presentation by Peter Merritt on the background of the project, a presentation by Greg Vaday on the energy survey results, and a presentation by Richard Ogburn on energy scenario modeling.

The overview was followed by a discussion of the energy profile of Southeast Florida: Peter Merritt made a presentation describing the electrical generation system and the power grid, and Jim Murley made a presentation describing the transportation systems and motor fuels. Key points made in the presentations included:

- Florida Power and Light (FPL) is the primary electric utility serving Southeast Florida
- Natural gas accounted for 66.1% of FPL electric generation in 2011
- Natural gas enters Southeast Florida by way of two pipeline systems originating from the Gulf Coast
- Port Everglades is the main entry point for petroleum products in Southeast Florida
- Port Everglades receives fuel deliveries from the U.S. Gulf Coast, Mexico, Caribbean, South America, Canada, and Europe
- Southeast Florida is extremely vulnerable to energy supply interruptions

The following map of significant energy facilities was presented at the workshop:



The initial presentations were followed by an informal polling of the attendees to help identify characteristics of the participants. Results of the polling indicated that 55% of the attendees represented local government; 26% private companies; 7% non-governmental organizations; 7% private citizens; and 5% state agencies. Regarding travel to the workshop, 75% indicated they drove alone in a traditional vehicle; 17% drove in an electric or hybrid vehicle, and 8% car pooled. Seventy-three percent of the attendees indicated that they are currently involved in an energy-related program or project at work.

The workshop participants were then asked to divide into breakout groups to discuss energy resiliency in relation to the following topic areas:

- Power Generation & Fuel Diversity
- Renewable Energy
- Energy Efficiency & Conservation
- Energy Efficient Communities
- Transportation & Motor Fuel Alternatives
- Transit Development
- Electric & Hybrid Vehicles

Each breakout group was facilitated by a regional planning council staff member. The facilitators guided the discussion in the breakout groups through two exercises. Exercise 1 lasted about 30 minutes. Each breakout group was asked to develop separate lists of Strengths, Weaknesses, Opportunities, and Threats (SWOT) related to the breakout group topic. After developing the lists, the facilitators asked the participants to select the single most important Strength, Weakness, Opportunity, and Threat related to the topic. The SWOT Analysis exercise results from each breakout group were organized on a single page and imported into a PowerPoint presentation for reporting to the entire group.

Exercise 2 lasted about 60 minutes. Each breakout group was asked to develop a list of strategies related to the breakout group topic to make the region more energy resilient. After developing the list of strategies, the facilitators asked the participants to select the three priority strategies to make the region more energy resilient. The Strategy Development exercise results from each breakout group were organized on a single page and imported into a PowerPoint presentation for

reporting to the entire group. The facilitators solicited a volunteer from each breakout group to present the exercise results to the entire group.

The workshop participants reconvened as a single group after the breakout groups completed their exercises. A volunteer from each breakout group presented the exercise results to the entire group. The exercise results are summarized below:

SWOT Analysis Breakout Group Results

Power Generation & Fuel Diversity

Strength:	Established infrastructure
Weakness:	Inability to meet future demand
Opportunity:	Gulf Stream energy generation
Threat:	Climate change

Renewable Energy

Strength:	Climate
Weakness:	Policy & climate
Opportunity:	Gulf Stream (current)
	Biomass
	Sun
	Wind
Threat:	Lack of consistent policy

Energy Efficiency & Conservation

Strength:	Sustainability is a popular and well accepted idea in both public and private sectors
Weakness:	Paradigm shift (change in behavior is difficult)
Opportunity:	Leadership, early education & adaption matters
Threat:	Complacent/reluctance to change behavior

Energy Efficient Communities

Strength:	Economic self-sufficiency
	Decreased sprawl
	Higher quality of life
Weakness:	Sustained commitment to all inclusive change
Opportunity:	New industries/economies
	More preserve/conservation
Threat:	Institutional disincentives

Transportation & Motor Fuel Alternatives

Strength:	Concentrated regional travel demand adjacent to regional transportation corridors
Weakness:	Totally dependent on centralized imports
Opportunity:	Sustainable agriculture & opportunities to deregulate alternative energy production
Threat:	Risk of natural or man-made threat to Port Everglades

Transit Development

Strength:	Population, critical mass and continued growth trends
Weakness:	Low density, sprawling car-focused land development pattern that is exacerbated from East to West
Opportunity:	Inventory of infill, redevelopment, and underperforming lands (i.e., low intensity commercial uses in West communities) that can be transformed into transit-supportive forms over time
Threat:	Money & politics

Electric & Hybrid Vehicles

Strength:	Lower operational cost
	Good for short trips
	No trips to gas station. Nightly charge at home
	Reduce environmental impact
	Noise reduction
	New standard charging nozzle
Weakness:	Initial cost
	Driving range
	Available charging stations (public)
	Too silent, pedestrians/bicycles don't hear them
Opportunity:	Incentives
	Plug-in hybrids – great opportunity to transition from gas to electric
Threat:	Emergency response/training for first responders
	Disposal of batteries

<u>Strategy Development Breakout Group Results</u>

Power Generation & Fuel Diversity

1. Incentivize development of renewable sources with lowest carbon footprint
2. Expand energy infrastructure
3. Develop ocean energy

Renewable Energy

1. Polling and economic modeling
2. Set goals
3. Education & Research and Development

Energy Efficiency & Conservation

1. Adopt a broad based regional strategy for energy conservation using available tools (Strategic Energy Master Plans, Solar and Energy Loan Fund, PACE)
2. Promote a consistent message of energy conservation region wide through all channels (elected officials, government staff, school board, school curriculum)
3. Promote competition around conservation using benchmarks and incentives/recognition

Energy Efficient Communities

1. Education on goals & benefits (public/elected officials, etc.). Pilot projects are key
2. Economic strategies and financing (incentives/disincentives)
3. Broad-scaled inclusion from all of community
4. Tie transportation and land use

Transportation & Motor Fuel Alternatives

1. A Statewide energy policy including private/public partnerships for fleet conversion and alternative fuel refueling stations
2. Moving agricultural transportation from diesel to lower carbon emitting and bio fuels
3. Reduce carbon emission idle timing for all modes of transportation (goal zero carbon idle time)

Transit Development

1. Rethinking land development regulations to incentivize a more transit oriented development pattern
2. Public education campaign on relationships between and among land use and the built environment, transportation, sustainability, energy & environmental impacts (K-12, elected officials, the public)
3. More regional approach to transit development, rethinking use of roadway network and a more multi-modal fashion to be more competitive for funding

Electric & Hybrid Vehicles

1. Standardize permitting
2. Provide incentives and/or rebates to buy vehicles, develop batteries, and develop more options/vehicles
3. Technological advancements to expand driving range

Conclusion

Following the breakout group presentations, all workshop participants were given an opportunity to make final public comments. There was a general consensus that the workshop was a productive forum for identifying strategies to make Southeast Florida more energy resilient. The workshop closed after the regional planning council staff thanked all participants for attending and providing valuable input to help develop strategies for the Statewide Energy Resiliency Strategy project.

After the workshop, SFRPC and TCRPC staffs worked together to consolidate the strategies and present them in a consistent format. The following priority strategies for enhancing energy resiliency in Southeast Florida are based on input from the workshop:

Power Generation & Fuel Diversity

- Promote the accelerated development of ocean energy technology and infrastructure necessary to use the Gulf Stream current to generate electricity.

Renewable Energy

- 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.

Energy Efficiency & Conservation

- 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.

Energy Efficient Communities

- Provide comprehensive, all-inclusive education on the goals, costs and benefits, obstacles, and quality of life implications related to energy efficient community design.

Transportation & Motor Fuel Alternatives

- Adopt a statewide energy policy including private/public partnerships for fleet conversion and alternative fuel refueling stations.

Transit Development

- Promote land development regulations and patterns that incentivize transit-oriented development and complement a broad, multi-modal transportation network.

Electric & Hybrid Vehicles

- Standardize and streamline the permitting process for electric vehicle charging infrastructure.