

# ## FPL Solar Power Plant Update ##

Pam Rauch Vice President, Development & External Affairs September 15, 2015

# Florida is advancing solar

FPL has been working to advance solar affordably in Florida for more than a decade

- ☼ Built Florida's first solar power plant in 2009 and two more in 2010
- ☼ Steep decline in the cost of solar is making it possible to do more without increasing electricity costs for customers
- ⇒ FPL is targeting completion for late 2016 to take advantage of decreasing solar-panel prices while still qualifying for 30% federal tax credit

Cost-effective large-scale solar becoming a reality for the first time in Florida



# Our current large-scale solar plants

Our first solar plants have given us valuable expertise that will help us cost-effectively triple our solar capacity by 2016

### FPL DeSoto Solar Energy Center

- ☆ 25 MW Photovoltaic project, built in 2009
- Florida's first large-scale solar plant

### FPL Space Coast Solar Energy Center

- ☼ 10 MW Photovoltaic project, built in 2010
- Partnership with NASA's Kennedy Space Center

### FPL Martin Clean Energy Center

- ☆ 75 MW of solar, built in 2010; connected to natural gas plant
- World's first hybrid solar-natural gas energy center



# Our future large-scale solar plants

We are on track to triple our current solar capacity by the end of next year with no net-cost to customers

### **FPL Solar Power Plants Timeline** 2012 2008 2010 2014 2016 **DeSoto** Space Martin Coast **25 MW 75 MW 10 MW** Citrus 2016

**Babcock** & Manatee 74.5 MW each Slated for 2016



### The complexity of solar

Solar is easy to over-simplify, but responsible advancement must rely on facts, context and economics

#### Resource

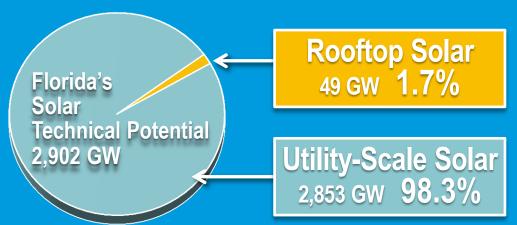
☼ Intensity of sun's rays reaching an area – affects ability of panels to generate electricity

Solar Resource Strength		
State	Solar Resource (kWh/m2/day)	Rank
Arizona	6.58	1
<b>New Mexico</b>	6.43	2
Nevada	6.11	3
California	6.08	4
Utah	5.90	5
Colorado	5.73	6
Texas	5.65	7
Hawaii	5.47	8
Florida	5.44	9
Kansas	5.43	10

☼ Solar resource variances make a difference: Southwest Florida's stronger solar resource provides a 3% to 5% edge in production

#### **Technical Potential**

- Estimate of the theoretical amount an energy source can produce in a given area
- ☼ More than 98% of Florida's solar technical potential is large-scale



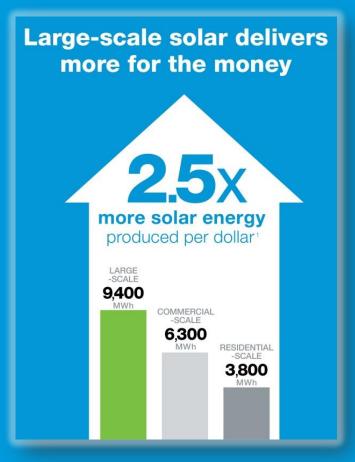


## Large-scale solar offers many advantages

Prioritize projects that deliver the greatest benefits for our customers' dollar

## The most economic way to advance solar

- Economies of scale and advanced design drive lower cost
  - Florida has strong potential for large-scale
- ☼ Offers higher production
  - ☼ Better orientation and less shading
- Benefits all utility customers fairly
- Best bang for the buck





### How FPL is delivering cost-effective solar

The benefits of our three new solar plants over their operational life will offset the costs of building them for our customers

We're leveraging multiple advantages to bring the costs of these projects down

- ☼ Building on FPL sites with prior permitting/development work
- Close proximity to transmission infrastructure with sufficient capacity, minimizing operating costs
- **☼** Economies of scale because plants are more than ~50 MW
- ☼ Strong supply chain relationships to drive down costs
- Targeting completion for late 2016 to take advantage of falling panel prices while still qualifying for 30% investment tax credit
- Tax and fee incentives from local communities



## FPL Babcock Ranch Solar Energy Center

~74 MW solar plant, partnership with Babcock Ranch development

- Key site-specific cost-saving advantages:
  - Tax incentive from Charlotte County
  - Babcock Ranch Independent
    Special District 3% franchise fee
  - Initial permitting completed in 2011; only modifications needed



# **FPL Citrus Solar Energy Center**

~74 MW solar plant, near Florida's first large-scale solar plant

- Key site-specific cost-saving advantages:
  - Tax incentive from DeSoto County
  - ☼ Permitting began in 2009; only modifications required
  - Existing transmission capacity availability





### **FPL Manatee Solar Energy Center**

~74 MW solar plant adjacent to FPL Manatee natural gas plant

- ↑ 762 acres of FPL owned property
- Key site-specific cost-saving advantages:
  - Use of existing substation
  - Tax incentive from Manatee County
  - Key permits were initiated several years ago and now only need to be modified



Leveraging existing infrastructure and permitting at all three sites is key to cost-effectiveness of projects

### **Questions?**