Florida Power & Light

Largest of Florida’s 55 electric utilities

Powering about half the state
4.9 million customer accounts
nearly 10 million people

Largest utility in the U.S. by electricity sold, 3rd in customers
Our Record

Enabling reliable service, reducing emissions and keeping customer bills low for the long term

30% lower bills
typical 1000-kWh rates vs. U.S. average

99.98+% reliable service

30% cleaner
CO₂ emission rate vs. U.S. average
Solar is a growing part of the mix

☀ FPL is adding 10 million+ solar panels across Florida by 2023

➢ We built three new solar power plants in 2016

➢ Eight more solar plants are under construction

➢ Numerous future sites are being developed
  ▪ That’s about 20 more solar power plants
Why should we deploy energy storage

► Can it lower customer bills?
► Can it improve customer reliability?
► Can it lower our emissions profile?
How can we use storage

Power Quality
- Frequency Regulation
- Renewable Ramp Control
- Load Following
- Solar Storage
- UPS

Generation Reserves
- Generation Capacity
- Peak Shaving
- Demand Response
- Congestion Relief
- Curtailment Reduction

Voltage Support
- T&D Deferral
- Renewable Smoothing
- Demand Charge Management
- Energy Arbitrage
Which technology

- Solid State “Battery”
- Compressed Air
- Flow
- Thermal
- Flywheels
- Pumped Hydro
Batteries (like solar) are becoming cheaper

1) Bloomberg New Energy Finance and GTM Research
2) Bloomberg New Energy Finance
Energy storage evolution @ FPL

2016
6 projects
3 MW

2017-2020
10-20 projects
50 MW

2020+

9
2016 demonstration projects

**Florida Bay**
1.5 MW / 1.5 MWh

**Community**
3 Residential Sites

**SW Substation**
1.5 MW / 4 MWh using 2nd life EV Batteries

**Relocatable**
Stadium Lighting Backup & Customer UPS

10
Current 50 MW Pilot

Urban Environment

Solar + Storage

Shift Solar to Meet Peak

Smooth Solar Output

Source: ComEd Underground 345kV Project
Current 50 MW Pilot (cont’d)

Mobile

Customer Sites

EV Charging

Other