

# How FPL is building a more resilient grid

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#### FPL serves 5.7 million customers in 43 counties

9,174 miles of transmission lines 77,424 miles of distribution lines

832 substations

82,668 transmission structures

1.4 million distribution poles

1.1 million transformers

35,550 square miles

(Figures as of January 2022)

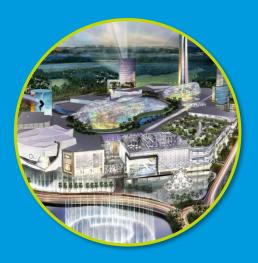


### Our service area poses some unique challenges









- Covers more than half of Florida
- Electrical facilities exposed to salt spray environment
- More thunderstorms and lightning than any other U.S. region
- Subtropical climate promotes rapid tree growth
- Higher probability of a hurricane striking
- One of the fastest growing states in U.S.



The 2004-05 hurricanes forever changed the way we provide service









## In 2006, after seven storms in two years, we began executing our Storm Secure program



**Hardening** 

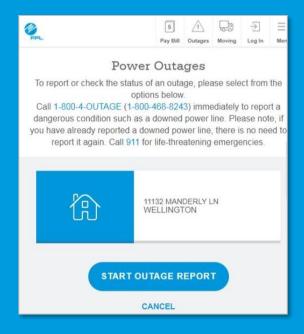
**Pole inspections** 

Vegetation management

**Underground conversions** 



#### We continue to execute on key improvements



Enhancing information for customers



Educating communities about Right Tree, Right Place



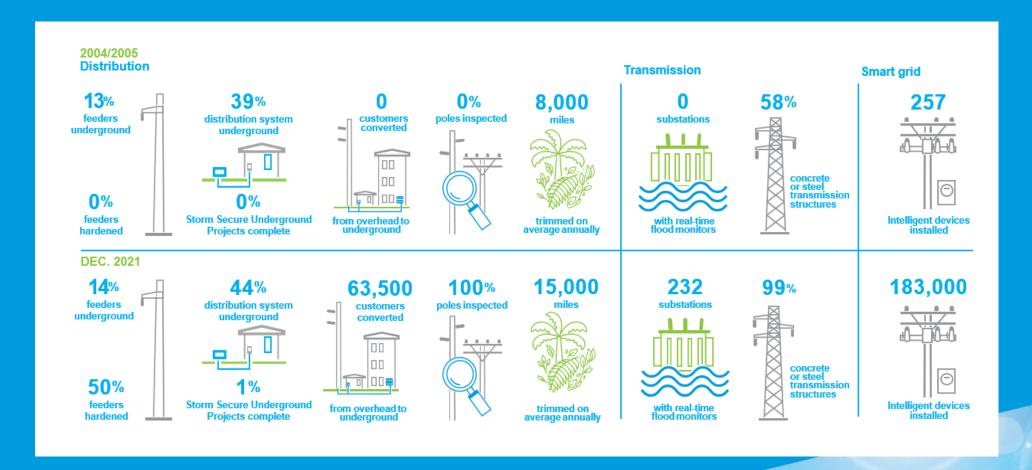
Building on proven hardening investments



Putting more power lines underground



### We've built a stronger, smarter, more storm-resilient grid since the 2004-05 hurricane seasons



Figures show improvements through end of 2021 in areas served by FPL since 2004-05; graphic does not include Northwest Florida



### Our improvements have reduced hurricane damage and shortened restoration times

	Hurricane Wilma (2005)	Hurricane Irma (2017)
Saffir-Simpson Scale	Category 3	Category 4
Fla. landfall max sustained winds	120 mph	130 mph
Cyclone Damage Potential Index	2.8	4.3
Customers affected	3.2 million (75%)	4.4 million (~90%)
Poles damaged	12,400	2,900
Transmission structures failed	100	5
Substations de-energized	241	92
Substations restored	5 days	1 day
50% of customers restored	5 days	1 day
100% of customers restored	18 days	10 days
Average customer outage	5.4 days	2.1 days



### Not done improving, we're finding better ways to put power lines underground to enhance the grid





- About 45% of our distribution system is underground
- Underground neighborhood lines perform 50+% better than overhead lines day-to-day and were 85% better during Hurricane Irma
- We completed ~600 Storm Secure Underground Pilot Program projects through the end of 2021, with ~600 more planned in 2022



### Smart grid technology plays an important role in resiliency

- Avoided outages for customers
  - Stations
  - Feeders
  - Laterals
- Accelerated restoration
- Remote assessments
  - Camera systems
  - Drone
- Real-time data
  - Closing of tickets
  - Grid Performance
  - Real time equipment and facility information
  - Equipment health
  - Equipment performance









### Along with better hurricane performance, our investments have improved daily reliability by 43% since 2006



- We've slashed the average time a customer experiences an outage in a year to 45.6 minutes in 2021 from 79.8 minutes in 2006
- We've also reduced the average number of outages and momentary interruptions a customer experiences in a year

SAIDI, or System Average Interruption Duration Index, measures the average time a customer experiences an outage in a year



#### We're committed to becoming the nation's best utility



- Best reliability in Florida
- Cutting-edge technology
- **▶** World-class customer satisfaction



