

The Florida Senate
COMMITTEE MEETING EXPANDED AGENDA
REGULATED INDUSTRIES
Senator Bradley, Chair
Senator Pizzo, Vice Chair

MEETING DATE: Tuesday, March 4, 2025
TIME: 4:00—6:00 p.m.
PLACE: Pat Thomas Committee Room, 412 Knott Building

MEMBERS: Senator Bradley, Chair; Senator Pizzo, Vice Chair; Senators Bernard, Boyd, Burgess, Calatayud, Fine, Gruters, and Ingoglia

TAB		BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
		Presentations on storm recovery and storm protection.		Presented
		Other Related Meeting Documents		

Senate Regulated Industries Committee

4:00 p.m. to 6:00 p.m.

March 4, 2025

412 Knott Building

Presenters in Order of Appearance

Mr. Mark Futrell, Deputy Executive Director, Technical, Florida Public Service Commission

Mr. Andy Pankratz, Vice President of Transmission & Substation, Florida Power & Light Company

Mr. Brian Lloyd, General Manager, Power Grid Operations, Duke Energy

Mr. Todd Fountain, General Manager, Emergency Preparedness, Duke Energy

Mr. Chip Whitworth, Vice President, Electric Delivery, TECO Energy

Mr. Kevin Walz, Regional Manager of Operations, Chesapeake Utilities Corporation.

Mr. Walt Trierweiler, Public Counsel

Storm Protection and Restoration Florida Public Service Commission Overview

Senate Regulated Industries Committee

Presentation to the



Mark Futrell
Deputy Executive Director, Technical
March 4, 2025

Extreme Weather Impacts on Utility Infrastructure

- Overhead transmission and distribution facilities
 - Direct structural damage caused by wind
 - Indirect structural damage caused by windblown vegetation and debris
- Underground facilities
 - Uprooted tree roots and erosion
 - Flooding and storm surge



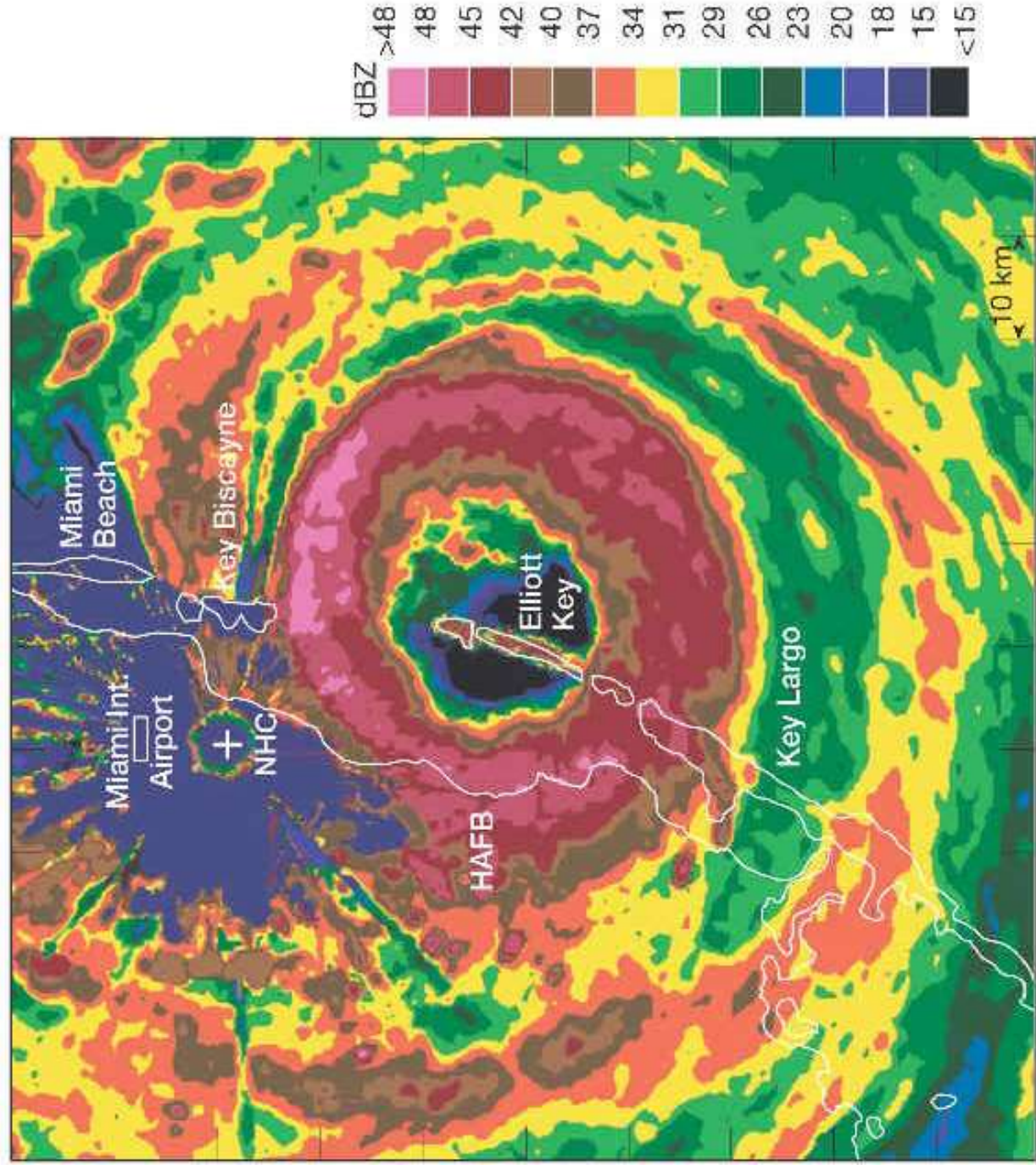
Transmission and Distribution Insurance

Pre-1992

- Commercial insurance available at reasonable and affordable prices
 - e.g., FPL per occurrence limit of \$350M for each storm in a given year at a \$3.5M annual premium
- Utilities maintained a relatively small reserve fund
- Costs of insurance and reserve fund recovered through base rates



Hurricane Andrew August 24, 1992



Hurricane Andrew August 24, 1992



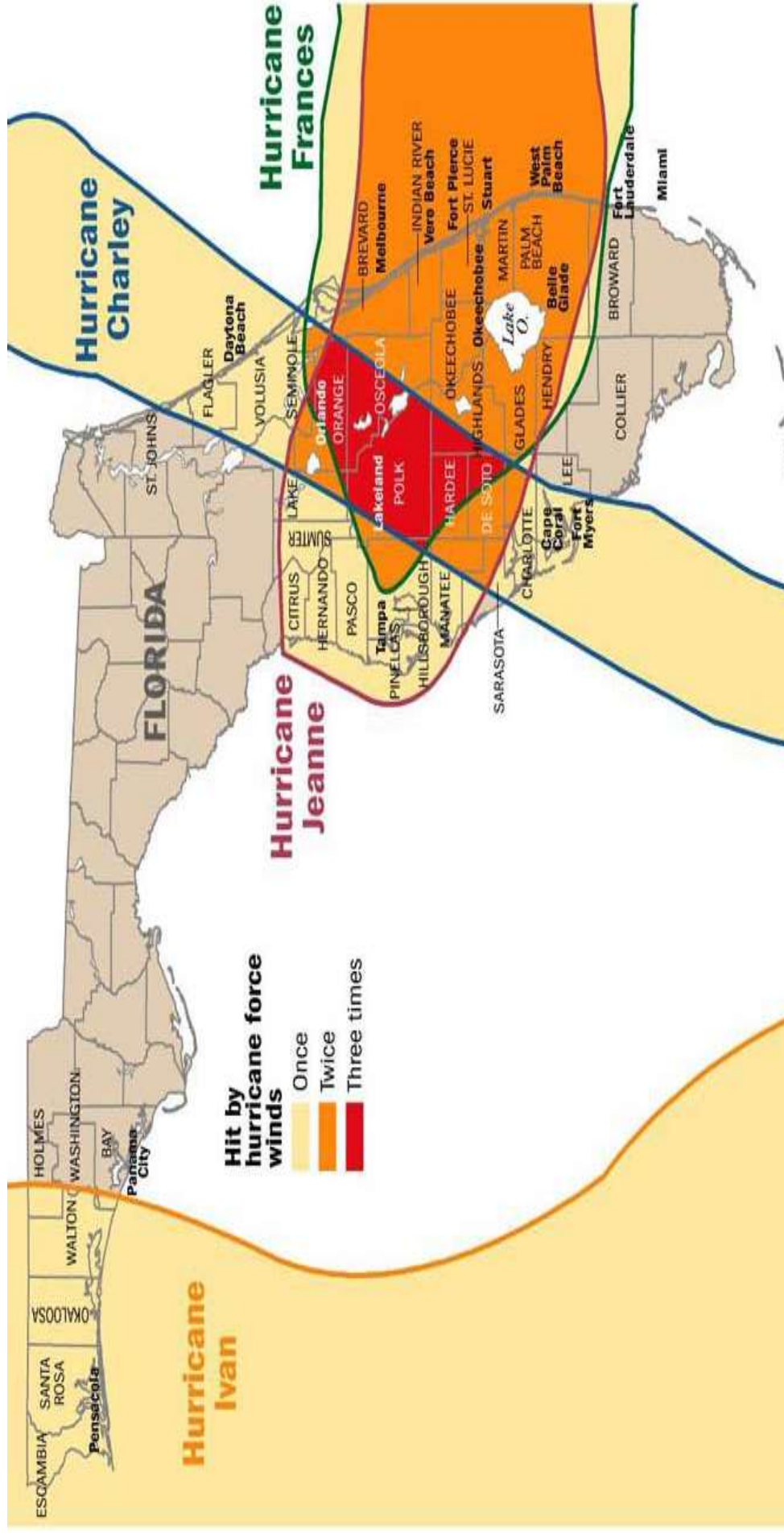
Transmission and Distribution Self-Insurance

Post-Andrew

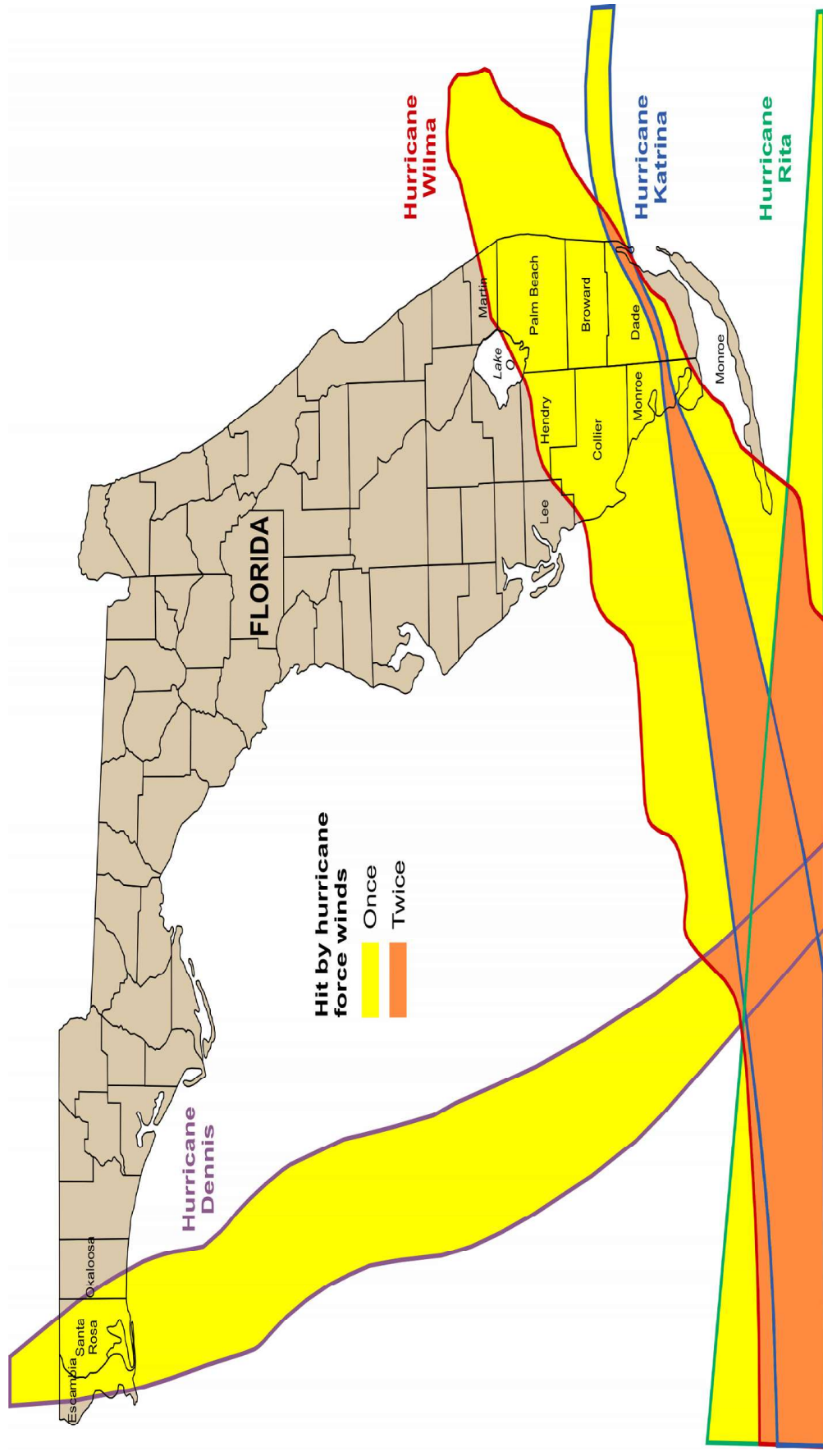
- Commercial insurance coverage limited and premiums unaffordable
- Utilities sought approval to pursue self-insurance
- The FPSC held proceedings to establish utility-specific storm reserve and annual accrual or contribution
- Accrual designed to achieve and maintain the target reserve level over time
- Utilities may seek approval to recover costs that exceed the storm reserve



2004 Hurricanes Ivan, Jeanne, Charley & Frances



2005 – Hurricanes Wilma, Katrina & Rita



Legislative Actions

- In 2005, Section 366.8260, F.S. established a new financing vehicle by which electric utilities can recover storm restoration costs and replenish storm reserves through “securitization” allowing access to low-cost funds through “storm-recovery bonds” issued pursuant to a financing order of the FPSC
- In 2006, SB 888 required the FPSC to:
 - Conduct a review to determine what should be done to enhance the reliability of Florida’s transmission and distribution grids during extreme weather events
- Submit reports to the Governor, President of the Senate, and Speaker of the House



FPSC Actions

- In 2006, the FPSC initiated a multi-faceted approach to hardening the electric infrastructure
- Workshop to explore lessons learned from 2004 and 2005 hurricane seasons
- Series of Orders and Rules implementing Storm Hardening and Preparation Activities
- Utilities required to file storm hardening plans every three years for FPSC review

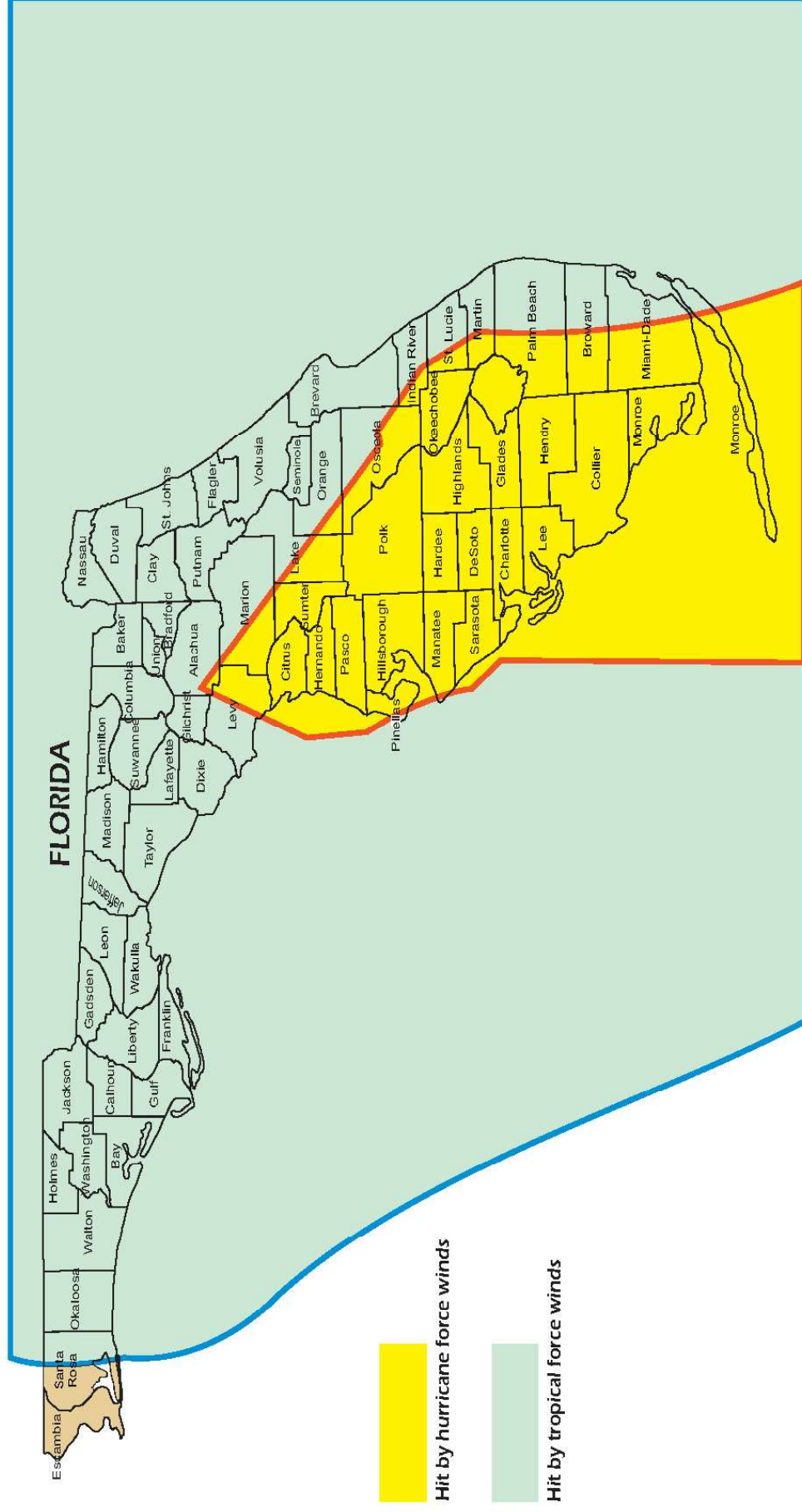


FPSC's Storm Preparedness Initiatives

- 1) Three-year trim cycle for distribution circuits
- 2) Audit of joint use attachments
- 3) Six-year transmission structure inspections
- 4) Hardening existing transmission structures
- 5) Develop a transmission and distribution geographic information system
- 6) Collection of post-storm forensic data
- 7) Collection of overhead vs. underground system performance
- 8) Increased coordination with local governments
- 9) Collaborative research on wind and storm surge effects
- 10) Develop a natural disaster preparedness and recovery plan



2017 - Hurricane Irma

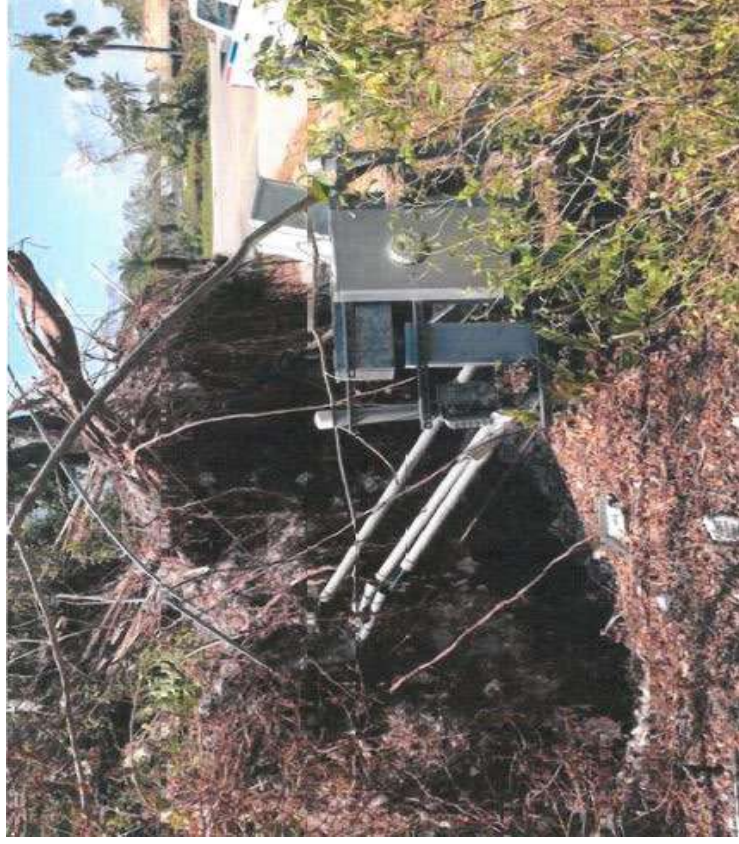


Hurricane Irma



2017-18 FPSC Hurricane Review

Despite the goal of reducing outages, even storm hardened facilities can suffer damage due to events beyond a utility's control



2017-18 FPSC Hurricane Review

- The FPSC's findings included:
 - Florida's aggressive storm hardening programs are working
 - The primary causes of power outages came from outside the utilities' rights of way including falling trees, displaced vegetation, and other debris
 - The length of outages was reduced markedly from the 2004-2005 storm season
 - Hardened overhead distribution facilities performed better than non-hardened facilities



2017-18 FPSC Hurricane Review

- FPSC's findings continued:
 - Very few transmission structure failures were reported
 - Underground facilities performed much better compared to overhead facilities in withstanding wind impacts
 - Rising customer expectations are that resilience and restoration will have to continually improve



2018 - Hurricane Michael

- Impacted 15 counties in the Big Bend region. Of these, 11 counties reported outages of over 80%. 4 counties reported outages of 100%
- Close to 20,000 restoration personnel utilized
- Structural damage to both utility facilities and customer dwellings was significant
- Some utility circuits required total re-build
- The FPSC approved a temporary payment program to assist FPUC's customers in repairing customer-owned equipment necessary for the resumption of electric service



Storm Protection Plan Legislation – 2019

Section 366.96, F.S.

- Legislative Intent: It is in the state's interest to strengthen electric utility infrastructure to withstand wind blown vegetation and debris caused by extreme weather conditions by promoting the overhead hardening of electrical transmission and distribution facilities, the undergrounding of certain electrical distribution lines, and vegetation management
- Protecting and strengthening transmission and distribution electric utility infrastructure from extreme weather conditions can effectively reduce restoration costs and outage times to customers and improve overall service reliability for customers
- It is in the state's interest for each utility to mitigate restoration costs and outage times to utility customers when developing transmission and distribution storm protection plans



Storm Protection Plan Legislation

- The investor-owned electric utilities must submit storm protection plans for FPSC review at least every three years
- The FPSC considers:
 - The extent to which the plan is expected to reduce restoration costs and outage times associated with extreme weather events and enhance reliability, including whether the plan prioritizes areas of lower reliability performance
 - The extent to which storm protection of transmission and distribution infrastructure is feasible, reasonable, or practical in certain areas of the utility's service territory, including, but not limited to, flood zones and rural areas
 - The estimated costs and benefits to the utility and its customers of making the improvements proposed in the plan
 - The estimated annual rate impact resulting from implementing the plan during the first 3 years of the plan



Storm Protection Plans

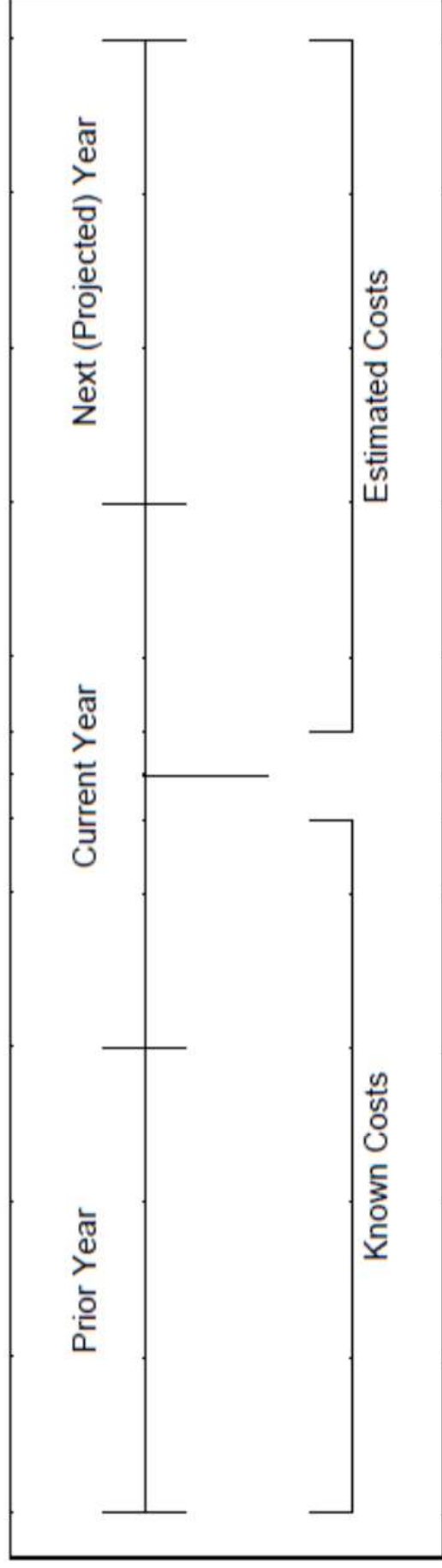
Example Programmatic Activities

- Vegetation management: routine maintenance trimming, hazard tree removal, right-of-way brush mowing
- Transmission and distribution pole inspections and replacement: replacing wood poles with concrete or steel
- Distribution feeder hardening: strengthening or replacing structures, updating basic insulation levels and conductors to current standards, relocating difficult to access facilities
- Distribution lateral hardening: conversion from overhead to underground of laterals that are most prone to damage during extreme weather events and are in inaccessible locations, and overhead hardening of those laterals less prone to damage
- Transmission substation hardening: mitigate risk of surge or flooding by raising the equipment above flood level, or constructing flood protection walls



Storm Protection Plan Cost Recovery

- Section 366.96, F.S. requires the FPSC to conduct an annual proceeding to determine the utility's prudently incurred transmission and distribution storm protection plan costs and allow the utility to recover such costs through a charge separate and apart from its base rates



- Costs determined to be prudently incurred, will not be subject to disallowance or further prudence review except for fraud, perjury, or intentional withholding of key information by the utility



Storm Protection Plan Cost Recovery

Actual Total SPP Costs (Millions)

	DEF	FPL	FPUC*	Gulf**	TECO	Total
2020	\$239.3	\$1,037.2		\$36.6	\$36.9	\$1,350.0
2021	\$343.5	\$1,149.5	\$0.0	\$96.3	\$115.1	\$1,704.4
2022	\$416.5	\$1,292.4	\$1.7		\$202.4	\$1,912.3
2023	\$684.2	\$1,374.6	\$8.8		\$208.9	\$2,280.9

Source: The Company's 2020-2023 SPP Annual Reports.

Actual SPP Bill Impacts (Residential \$/1,000 kWh)

	DEF	FPL	FPUC*	Gulf**	TECO
2020	\$2.05	\$1.29		\$0.98	\$1.03
2021	\$0.31	\$0.42		\$0.36	\$2.39
2022	\$3.29	\$2.17	\$0.84		\$2.91
2023	\$4.21	\$3.82	\$2.51		\$3.76

Source: The Company's 2020-2023 SPP Annual Reports and SPPCRC Dockets.



Storm Restoration Costs and Surcharges

- The FPSC has established storm reserve funds for electric IOUs to pay for costs to restore service caused by storm damage
- If storm restoration costs exceed storm reserve funds, electric IOUs may seek approval to establish a surcharge to recover costs and replenish the storm reserve fund
- The FPSC holds a hearing to determine the appropriate amount of storm restoration costs



Storm Restoration Costs and Surcharges

<u>Utility</u>	<u>Total Storm Costs</u>	<u>Impact on 1,000 kWh Residential Bill</u>	<u>Duration</u>	<u>Hurricanes and/or Tropical Storms</u>
FPL	\$794,309,025	\$2.07	2/2005 - 8/2005	Charley, Frances, Jeanne
		Initial - \$1.65 Final - \$1.34	9/2005 - 7/2019	Dennis, Katrina, Rita, Wilma
	\$294,759,000	\$3.36	3/2017 - 3/2018	Matthew
FPL and FPL NW	\$1,298,027,000	\$15.30	4/2023 - 3/2024	Michael, Sally, Zeta, Ian, Nicole
	\$1,200,000,000	\$12.02	1/2025 - 12/2025	Debby, Helene, Milton
Gulf Power	\$53,062,953	\$2.71	3/2005 - 2/2006	Ivan
	Revised Ivan Factor	\$2.57	3/2006 - 6/2009	Ivan
	\$290,000,000	\$8.00	7/2019 - 3/2023	Michael
	\$238,792,000	\$3.00	3/2021 - 3/2023	Sally, Zeta



Storm Restoration Costs and Surcharges

<u>Utility</u>	<u>Total Storm Costs</u>	<u>Impact on 1,000 kWh Residential Bill</u>	<u>Duration</u>	<u>Hurricanes and/or Tropical Storms</u>
Duke	\$250,000,000	\$3.62	8/2005 - 7/2008	Charley, Frances, Jeanne, Ivan
	\$171,300,000	\$5.34	3/2020 - 12/2020	Dorian, Nestor
	\$20,100,000	\$0.55	8/2021 - 12/2021	Eta, Isaias
	\$431,380,637	\$13.14	4/2023 - 12/2023	Elsa, Eta, Isaias, Ian, Nicole, Fred
	\$91,900,000	\$5.09	1/2024 - 12/2024	Idalia + Previous Storms
	\$1,089,556,000	\$32.40	3/2025 - 2/2026	Debby, Helene, Milton
Tampa Electric	\$134,832,848	\$10.22	4/2023 - 12/2023	Dorian, Elsa, Ian, Nicole, Alberto, Nestor, Eta
		\$2.19	1/2024 - 12/2024	Dorian, Elsa, Ian, Nicole, Alberto, Nestor, Eta
	\$466,651,185	\$19.95	3/2025 - 8/2026	Idalia, Debby, Helene, Milton
Florida Public Utilities	\$2,921,190	\$1.54	4/2019 - 3/2021	Matthew, Irma
	\$69,000,000	\$12.80	11/2020 - 12/2025	Michael



Thank you

Questions?

mfutrell@psc.state.fl.us





FPL - Proudly powering Florida's growth for 100 years

Andy Pankratz
Vice President of Transmission & Substation
Florida Power & Light Company

Florida Senate Committee on Regulated Industries
March 4, 2025



FPL is honored to have served Florida for 100 years!



Providing
reliable
electricity

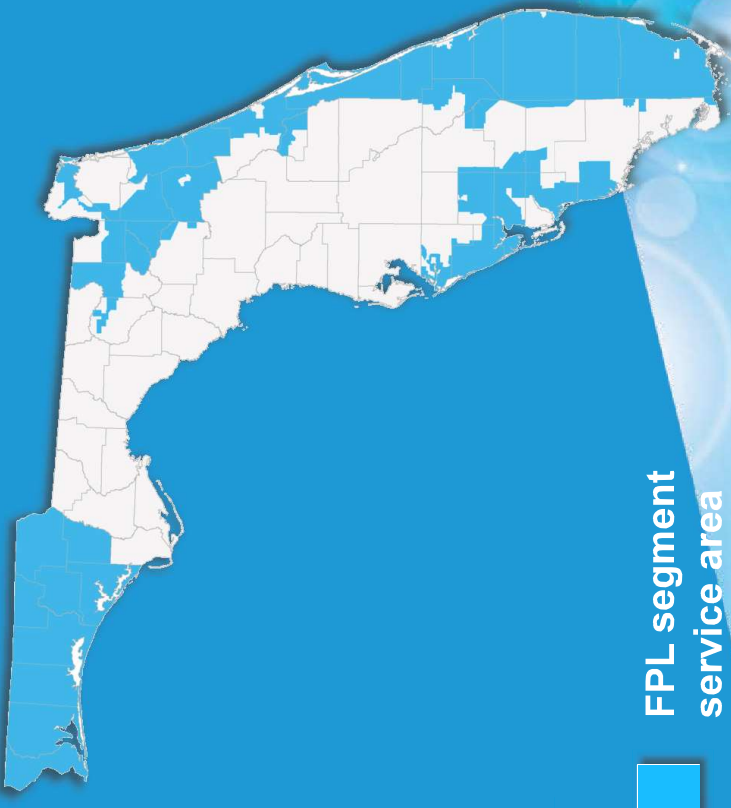
From
diverse
energy sources

While keeping
bills as
low as
possible



FPL serves ~6 million customers across 43 counties and over 35,000 sq. miles

- ▶ 9,537 miles of transmission lines
- ▶ 81,823 miles of distribution lines
- ▶ 921 substations*
- ▶ 83,573 transmission structures
- ▶ 1.4 million distribution poles
- ▶ 1.15 million transformers
- ▶ 35,296 MW Generation Resources
 - » ~8,000 MW Solar/500 MW BESS
- ▶ **System Peak Load ~28,461 MWh**



 FPL segment
service area

*as of Dec. 2024

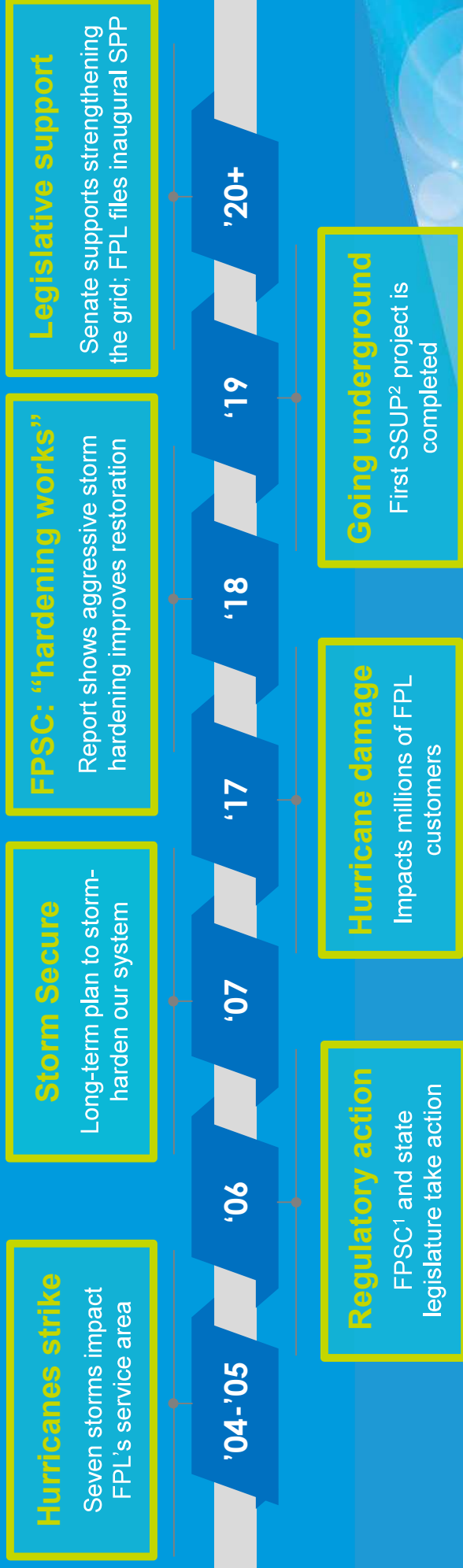


Our service area poses some unique challenges



- ▶ More than 80% of customers live within 20 miles of the coast
- ▶ 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.

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



¹ Florida Public Service Commission

² Storm Secure Underground Program

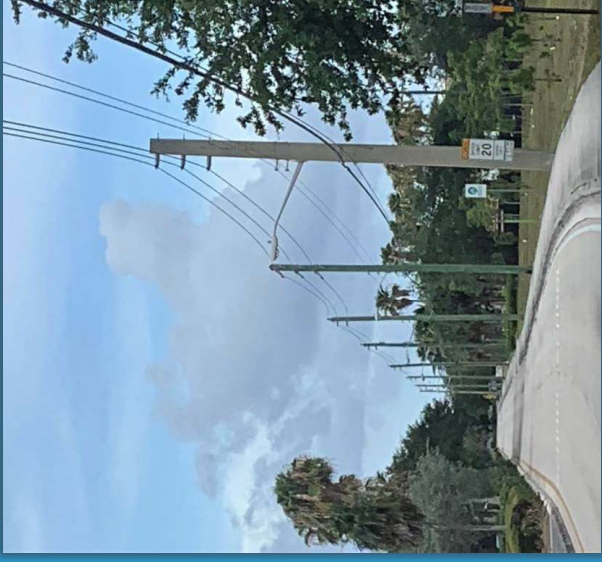
FPL's Storm Protection Plan improves resiliency across our entire T&D grid

Transmission and substations



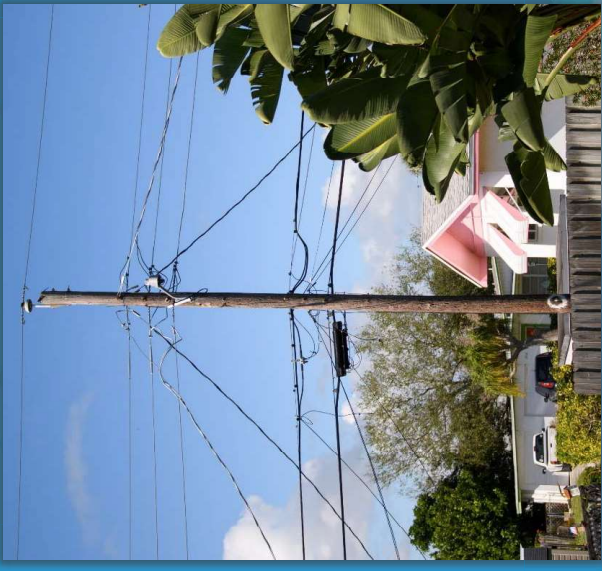
Transmission & Distribution Feeder Hardening
Vegetation Management

Distribution “feeder” lines



Transmission & Distribution Feeder Hardening
Vegetation Management
Pole Inspection & Replacement
Substation Flood Mitigation

Distribution “lateral” lines
(neighborhood lines)



Lateral Hardening (SSUP)

We continue to build a stronger, smarter and more storm-resilient electric grid that benefits our customers during good weather and bad

2004/2005
Distribution

12%

feeders underground

0%

Feeders hardened

39%

distribution system underground

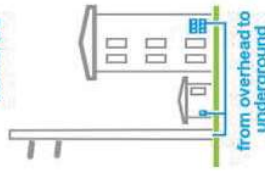


0

Storm Secure Underground Projects complete

0

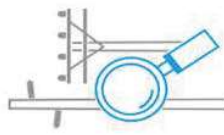
customers converted



from overhead to underground

0

poles inspected



8,000 miles

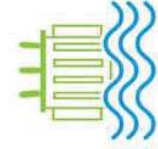


trimmed on average annually

Transmission

0

substations



with real-time flood monitors

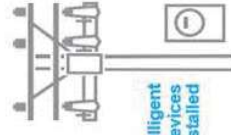
58%



concrete or steel transmission structures

Smart grid

257



Intelligent devices installed

Jan. 2025

13%

feeders underground

69%

Feeders hardened

50%

distribution system underground

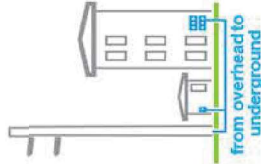


5%

Storm Secure Underground Projects complete

132,500

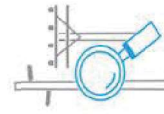
customers converted



from overhead to underground

100%

poles inspected



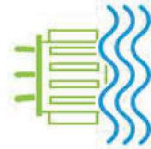
17,000 miles



trimmed on average annually

240

substations



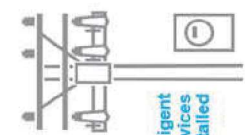
with real-time flood monitors

96%



concrete or steel transmission structures

227,000



Intelligent devices installed



Stronger infrastructure and smart grid technology are improving reliability, helping us restore power faster and even prevent outages

~82% main power lines
hardened or underground

One of the most reliable
electric utilities
in the U.S.⁽¹⁾

96% transmission structures
steel or concrete

Smart grid technology
helped avoid 15+ million outages since 2011

1) FPL has received the ReliabilityOne® National Reliability Award seven times in the last 10 years.

In 2024, FPL was honored with the Outstanding Reliability Performance – Southeast Region

Metropolitan Service Area award from PACConsulting.

FPL

We continue to replace overhead neighborhood power lines with more reliable underground lines through our Storm Secure Underground Program



Underground vs. Overhead
Neighborhood lines

Up to 14x better
during 2024 hurricane season

50% better
day-to-day



Hurricanes Helene and Milton impacted almost all of FPL's service area in 2024

**Affected
~2.7 million
FPL customers**

**Severe
storm surge
and flooding**

**Record-breaking
tornado activity**



Crews worked safely and as quickly as possible following each storm

Restoration of workforce of >20,000 men and women combined for both storms

91% restored EOD 1 and fully restored in 4 days after Helene

74% restored EOD 1 and fully restored in 6 days after Milton



Storm-hardening investments continue to benefit customers during hurricanes and severe weather...

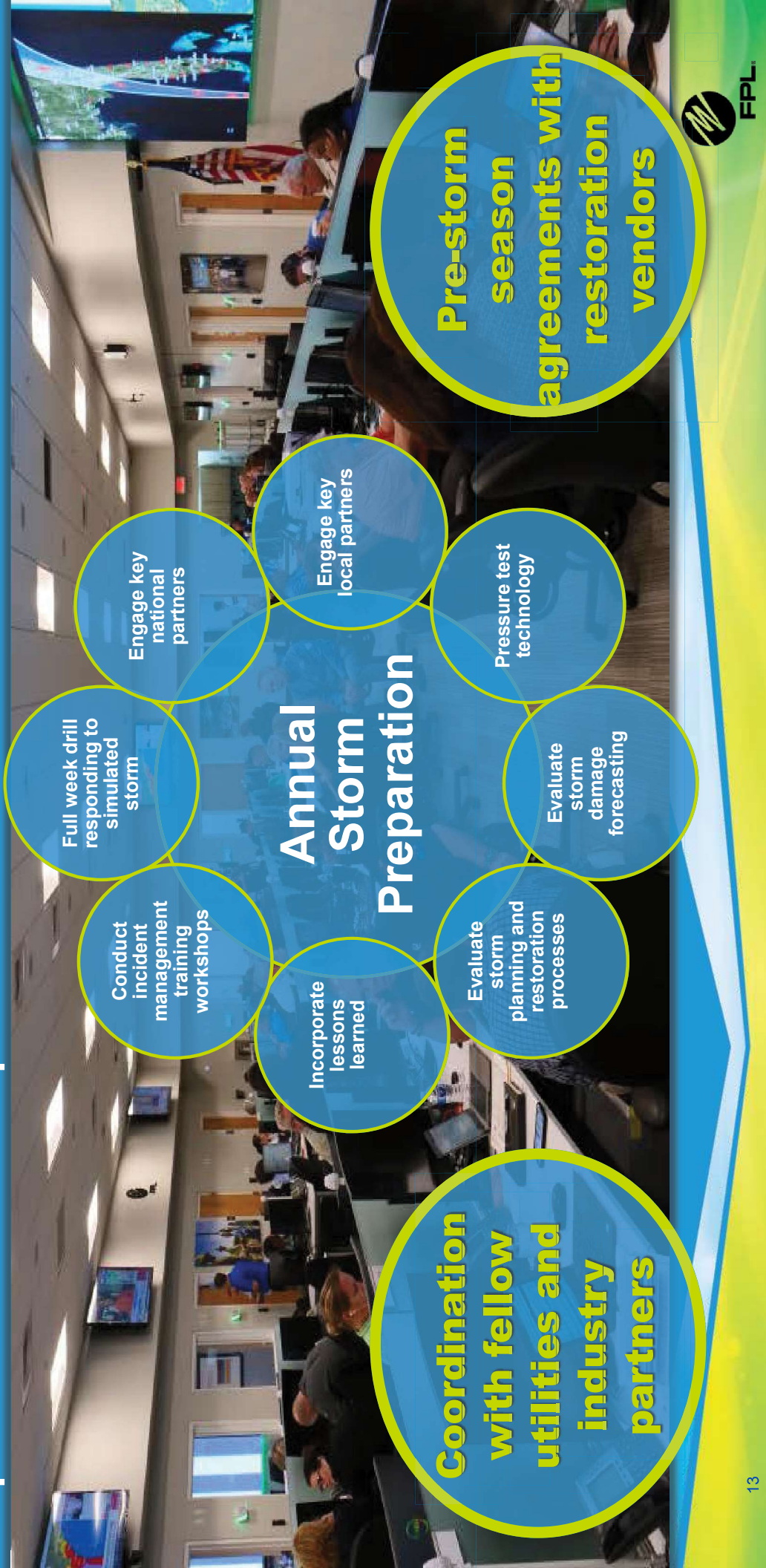
No significant transmission issues

Underground lines performed up to **14x better** than overhead lines

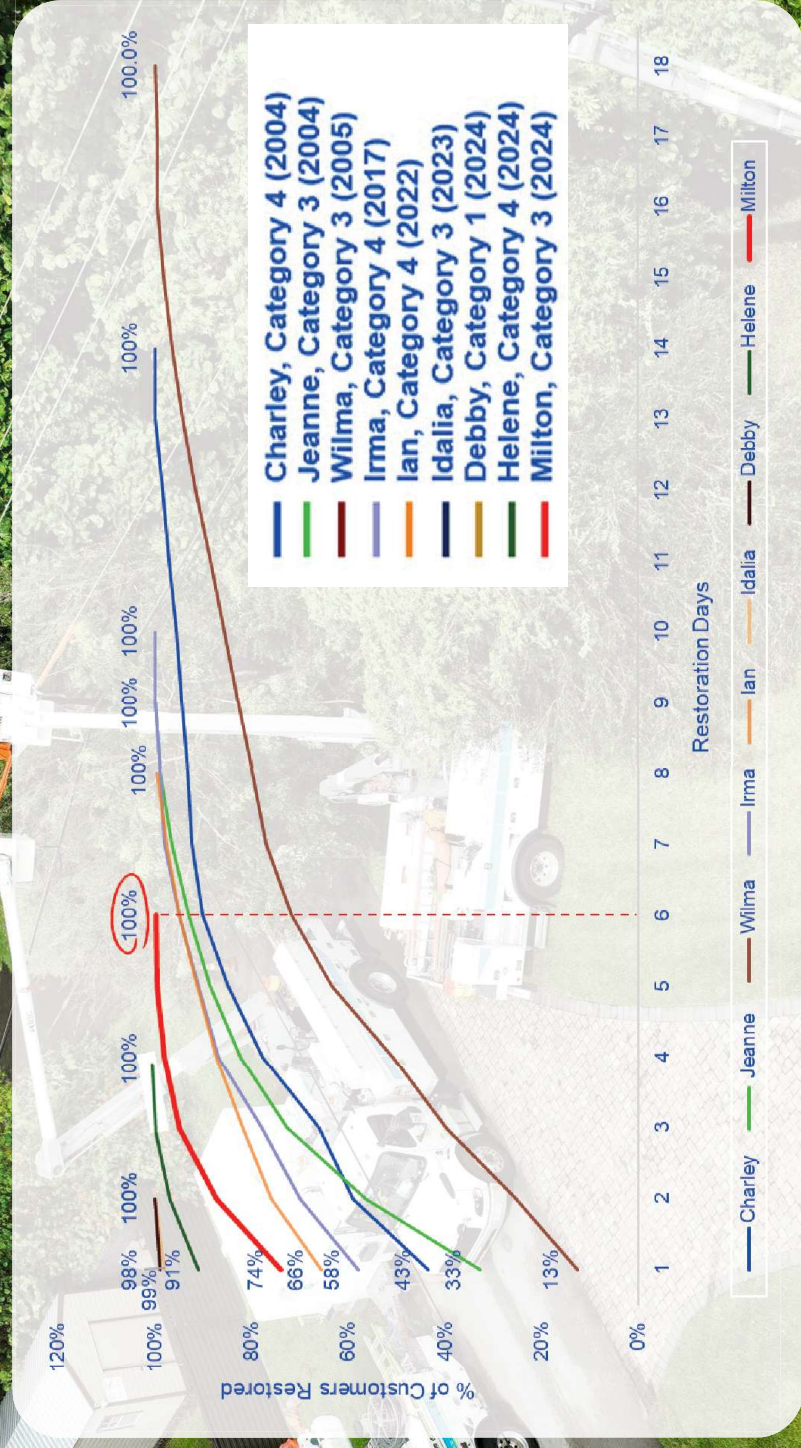
~823,000 outages avoided with smart grid technology

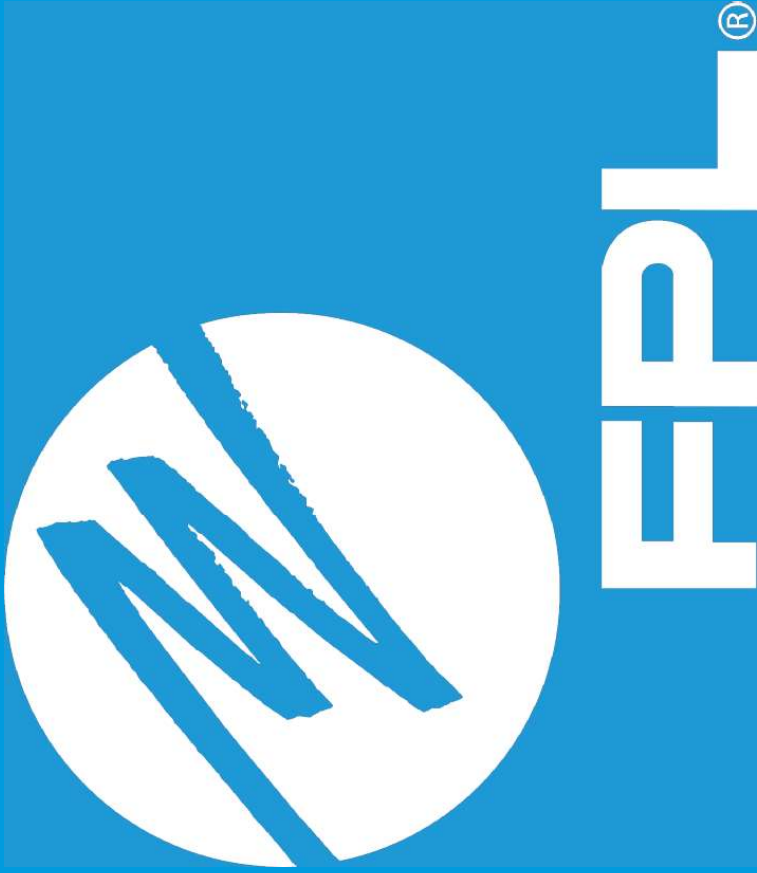


FPL conducts annual storm preparation and continuously improves restoration processes



....Speeding up restoration times gets kids back in school, parents back to work and the communities we serve back on their feet faster





Appendix



Our forensic data shows that hardening investments continue to benefit customers during hurricane restoration efforts

FPL’s Hurricane Restoration Performance

	Hurricane Wilma	Hurricane Irma	Hurricane Ian	Hurricane Nicole	Hurricane Idalia	Hurricane Debby	Hurricane Helene	Hurricane Milton
Storm Season	2005	2017	2022	2022	2023	2024	2024	2024
Saffir-Simpson Scale	Category 3	Category 4	Category 4	Category 1	Category 3	Category 1	Category 4	Category 3
Landfall Max Sustained Winds	120 mph	130 mph	150 mph	75 mph	125 mph	80 mph	140 mph	120 mph
Customers Affected	3.2 million	4.4 million	2.2 million	0.5 million	0.2 million	0.25 million	0.7 million	2 million
FPL Counties Impacted	21	35	32	30	37	34	37	30
AFS Interruptions Avoided	N/A	546,000	404,000	152,000	69,000	85,000	184,000	554,000
Substations Flooded	0	2	6	0	0	0	0	2
Substations De-energized	241	92	27	2	7	1	14	50
Trans Structures Failed	100	5*	0	0	0	0	0	3**
Trans Line Sections Impacted	345	215	70	15	13	5	20	84
Distribution Poles Replaced	12,400	4,700	3,200	30	171	40	334	1,848
Lateral Performance (UG vs OH)	N/A	6.6x	5.6x	15.5x	13.6x	8.3x	14.5x	5.3x
50% of customers restored	5 days	1 day	1 day	1 day	1 day	1 day	1 day	1 day
100% of customers restored	18 days	10 days	8 days	1 day	2 days	2 days	4 days	6 days
Average customer outage	5.4 days	2.1 days	1.5 days	0.2 days	0.13 days	0.11 days	0.31 days	0.88 days



Brian Lloyd
General Manager
Power Grid Operations

Todd Foundation
General Manager
Emergency Preparedness

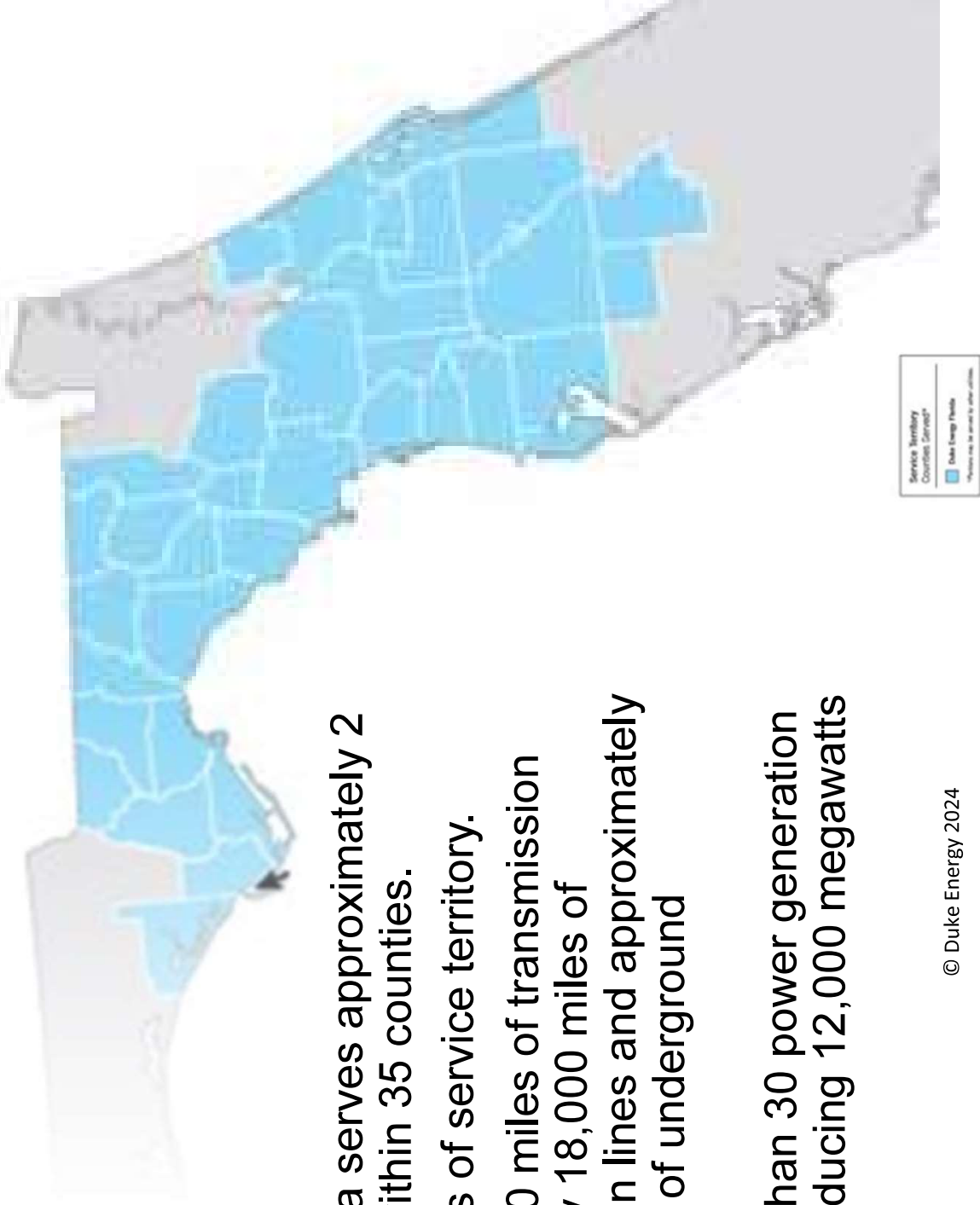


Power Grid Operations

Duke Energy Florida

- Duke Energy Florida serves approximately 2 million customers within 35 counties.
- 20,000 square miles of service territory.
- Approximately 5,200 miles of transmission lines, approximately 18,000 miles of overhead distribution lines and approximately 14,000 circuit miles of underground distribution cable.
- We maintain more than 30 power generation sites capable of producing 12,000 megawatts of electricity.

© Duke Energy 2024



Storm Protection Plan

© Duke Energy 2024

Pole Replacement

- Duke Energy's year-round Storm Protection Plan helps keep the lights on for our customers 365 days a year, not just during hurricane season.
- Grid-strengthening work and advanced technology helps reduce outage impacts for customers, enabling swift restorations.
- More than **40,000 power poles** have been hardened.
- Approximately **50%** of primary distribution power lines are now underground.



Self-healing Technology

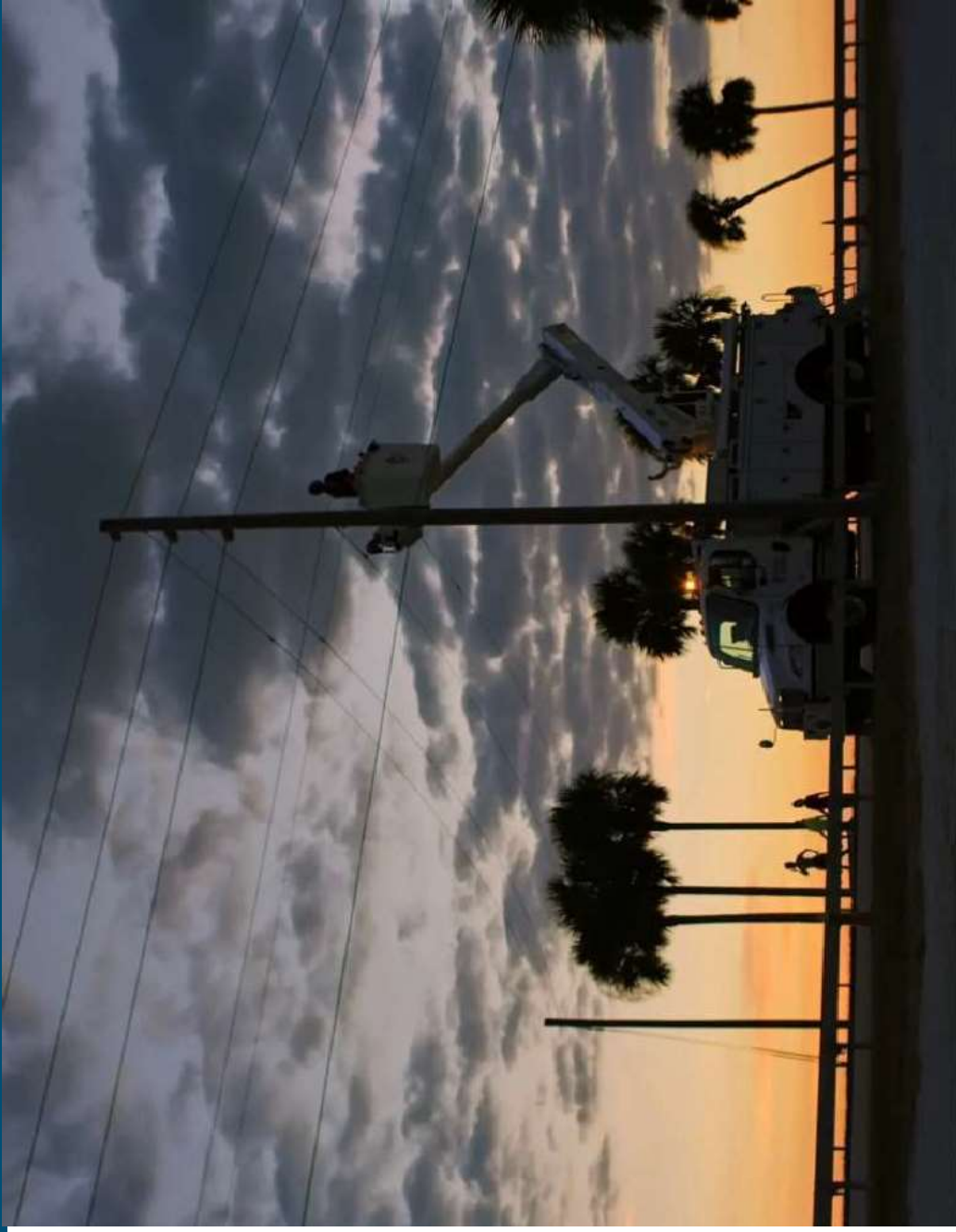
Criteria

Sectionalizing Guidelines

- 400 customers
- 3 miles of line
- 2 megawatts of load

Currently have ~74% of our customers on automation and ~49% on a self-healing grid

By year-end 2026 we anticipate having 100% on automation with 80% on a self-healing grid



Over **75%** of Duke Energy Florida customers benefit from smart, self-healing technology, preventing hundreds of millions of outage minutes during storms:

Milton: ~200 million

Helene: ~113 million

Debby: ~12.5 million

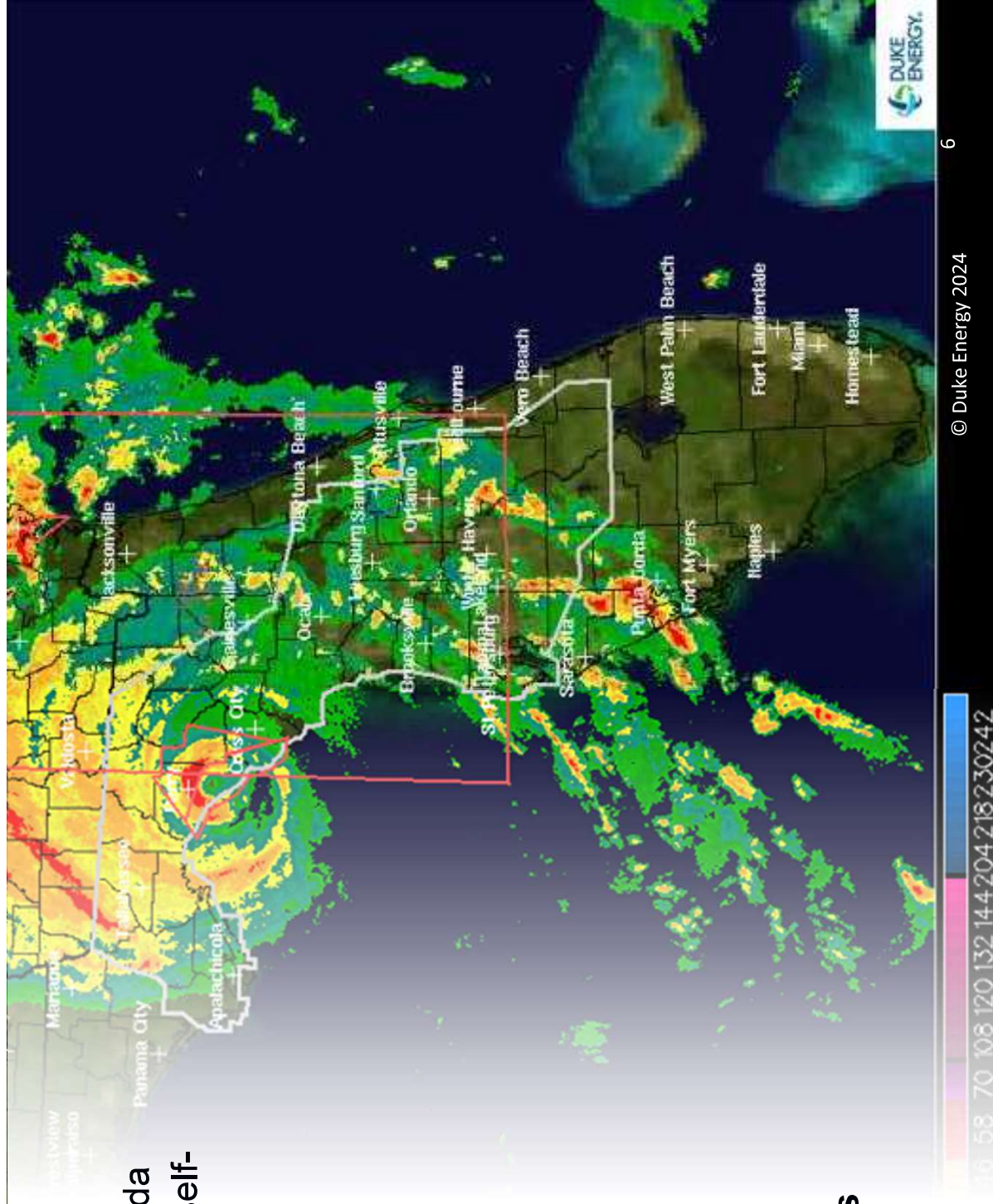
Idalia: ~5 million

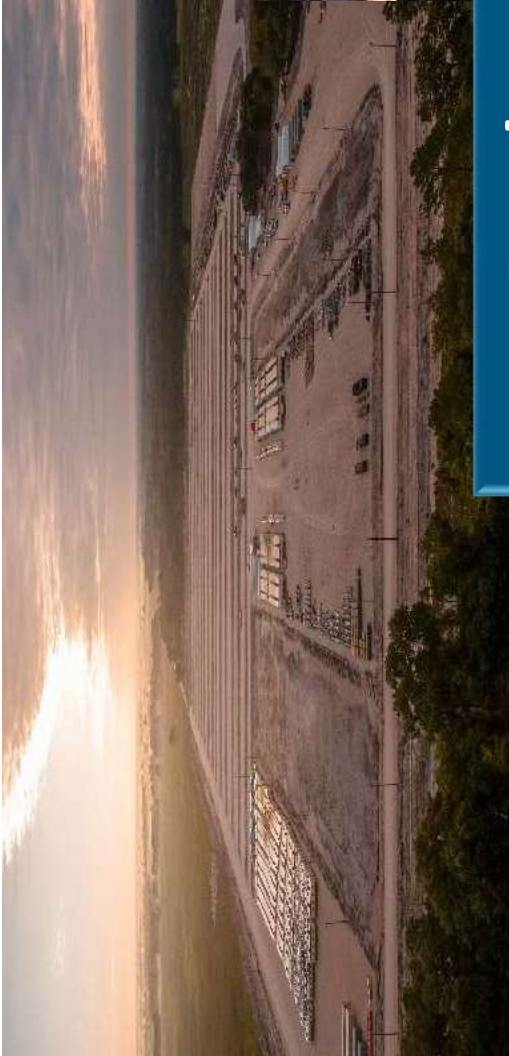
Ian: ~200 million

Michael: ~1.8 million

Irma: ~5 million

Total ~537 million minutes





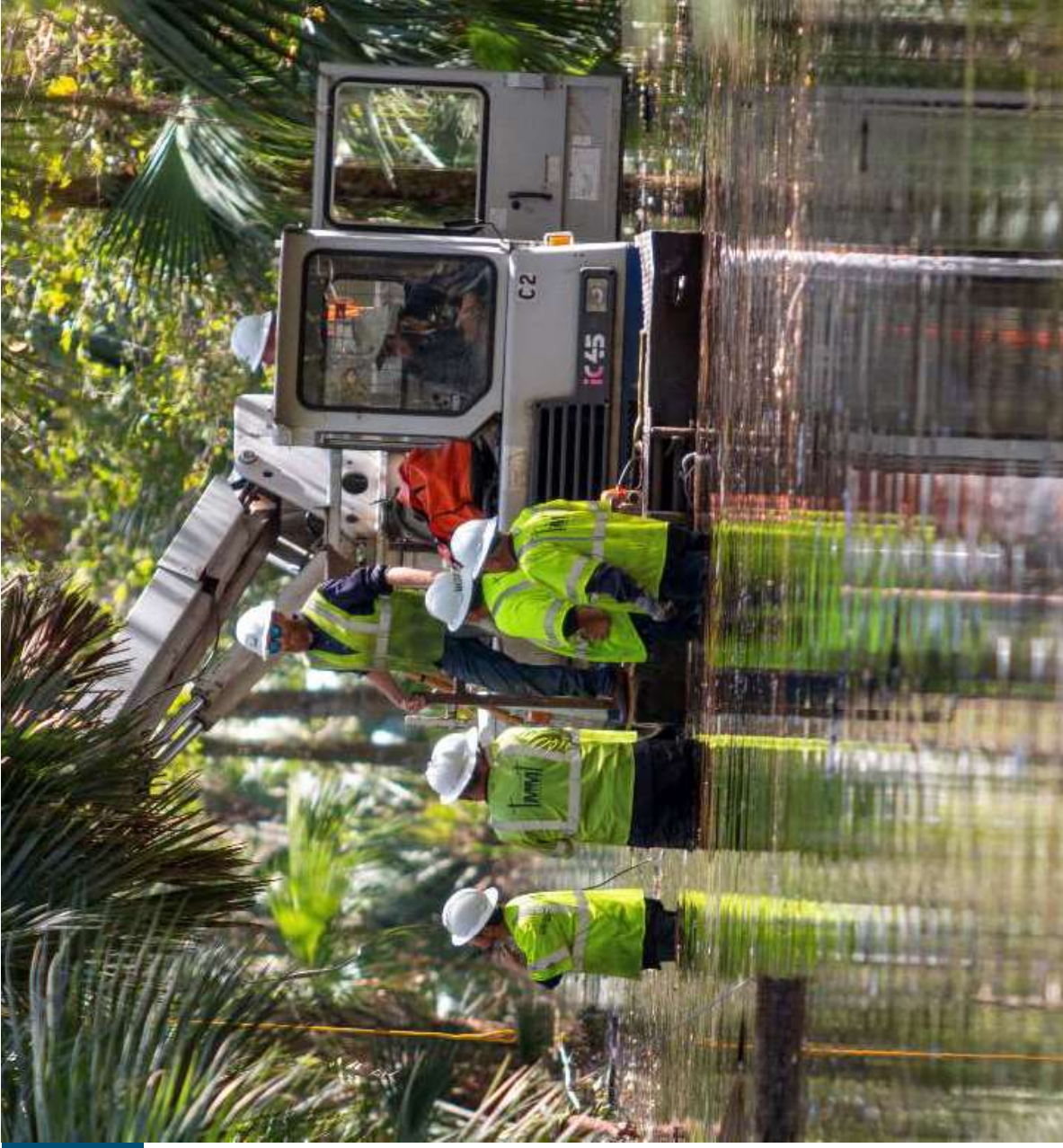
Ready to Respond



Storm Response

Goals:

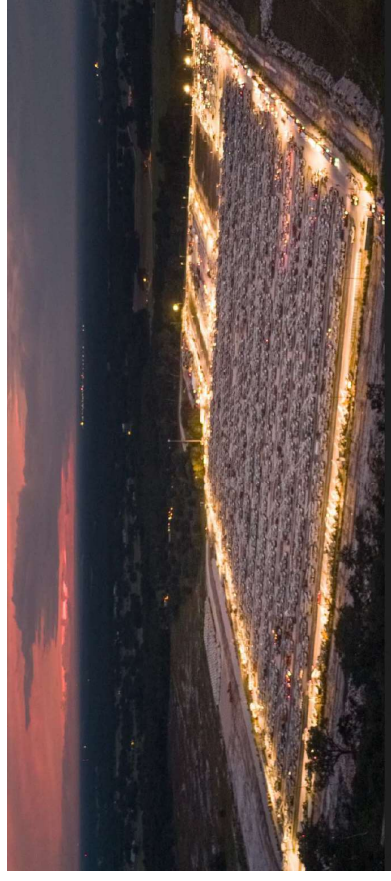
- Efficient restoration of service to our customers. At Duke Energy, we realize the importance of the service we provide and impact it has on the lives of our customers; our goal is to begin restoration as soon as it is safe to do so.
- Ensuring the safety of our customers, our employees and the numerous off-system resources is our core value.
- Provide accurate, timely and detailed information to our customers throughout the event.
- Rebuild the communities we serve.



Pre-Storm Planning

Staging (Mustering) Sites

- Positioned along the outside of the storm's path, but as close to the anticipated impact area as possible to allow for the quick deployment of crews and other resources
- On site:
 - Meals
 - Fuel
- Temporary lodging provided through hotels



Duke Energy Sister Utilities and Contract Crews

DUKE ENERGY SERVICE AREA



REGULATED UTILITIES

- 500+ line workers Duke Energy Florida
- Hundreds of Fla. contract line workers and tree trimming personnel
- Linemen in our Duke Energy sister utilities



Staging Sites vs. Basecamps

Basecamps

Located in the impacted area – only after the storm has cleared and when space is available – to save time and increase productivity

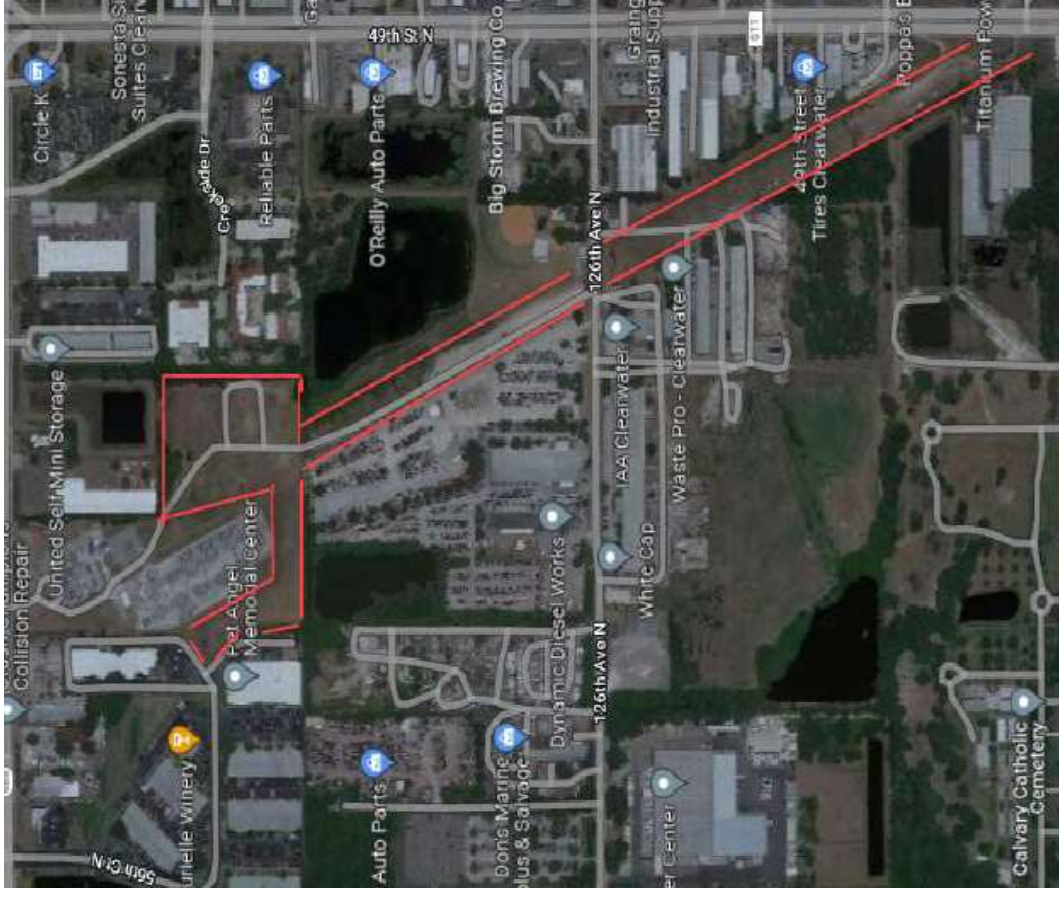
Usually take about 24 hours to set up

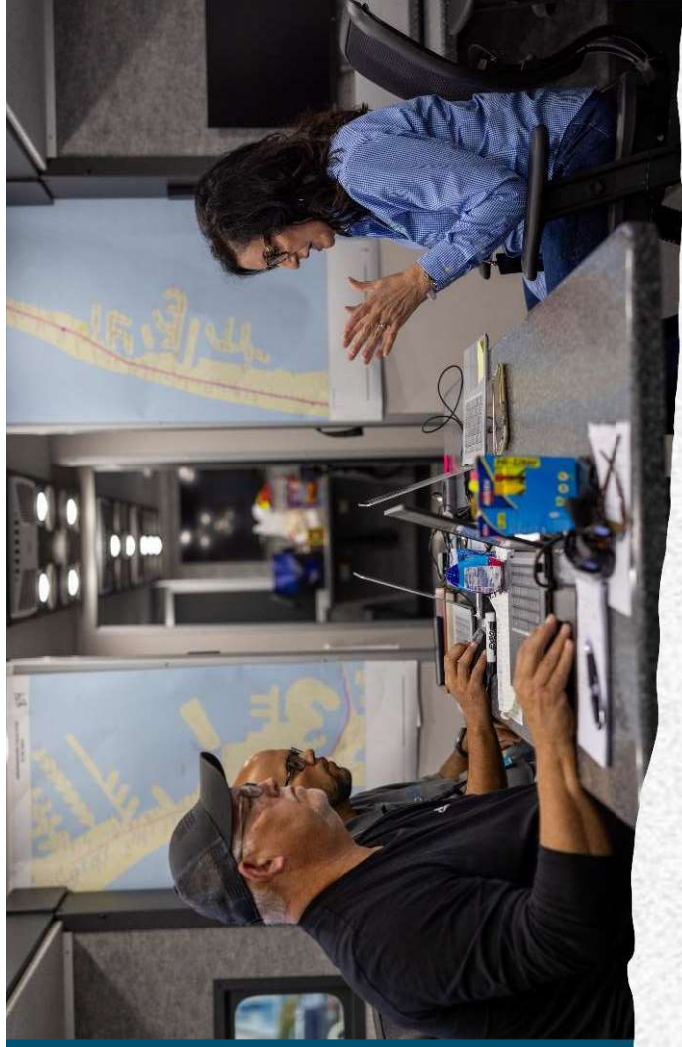
On site:

- Temporary lodging
- Meals
- Fuel
- Tools and equipment

Requirements:

- Ability to feed crews onsite
- Space to move resources in and out efficiently
- Dedicated egress and ingress locations
- Parking lanes with room to access the trucks at night for fueling or repairs





Scalable Incident Command Structure

Blue Sky

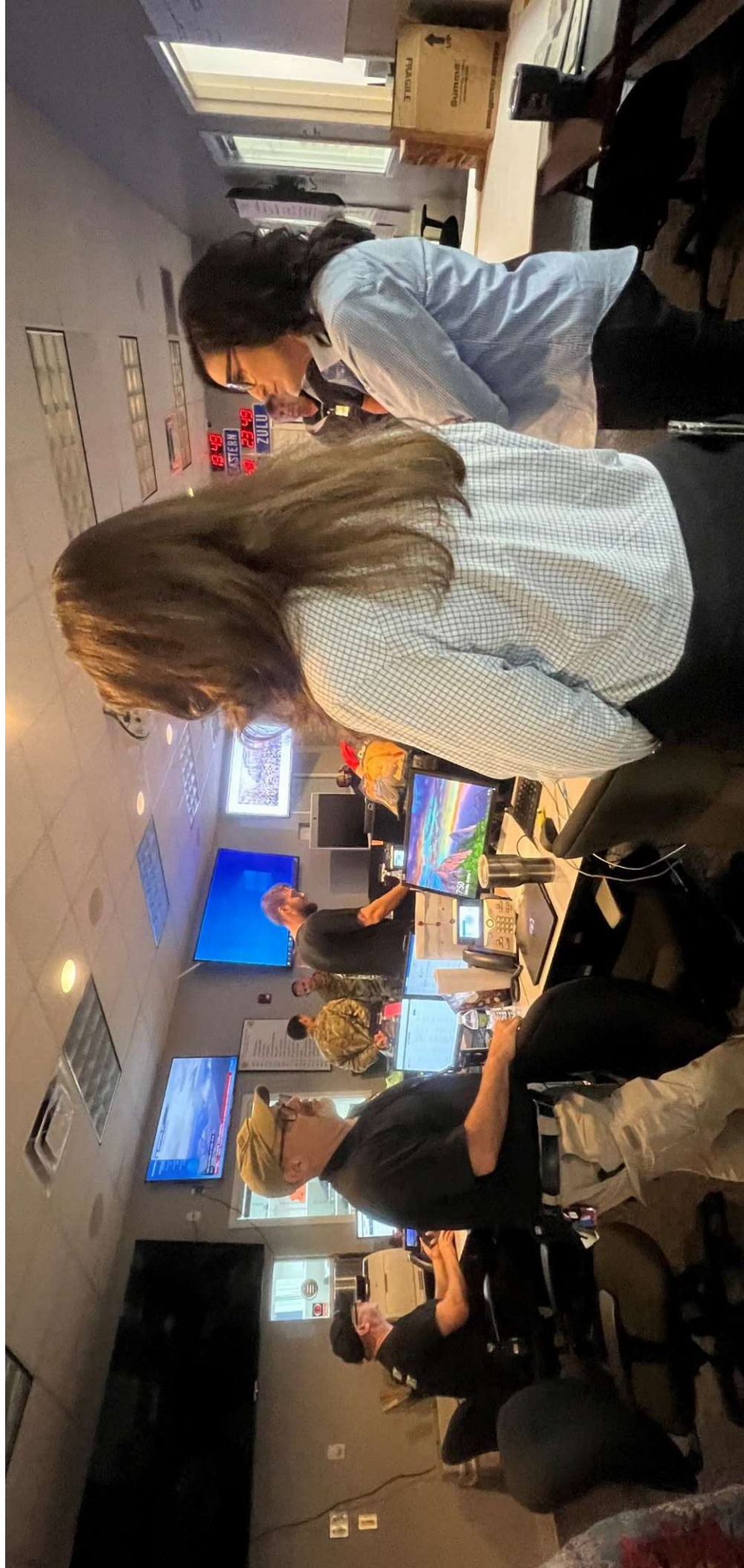


- During blue sky days the inventory is utilized as working stock within the Op Centers
- This ensures the material is current with standards
- Ensures that inventory is within the manufacturers recommended shelf life

Red Sky



- During red sky days it is anticipated that our native line resources will come off their tools and run off-system contract resources
- The lockers are deployed to the basecamps
- Storm boxes that are supplied with the same material to the Op Centers to be utilized by native crews when performing restoration



Working Alongside the Communities We Serve

2024 Hurricane Season: By the Numbers



Debby (Cat. 1)

- 350,000 outages reported
- 3,000 resources mobilized
- 320 damaged poles replaced
- 95% of outages restored within **24 hours**

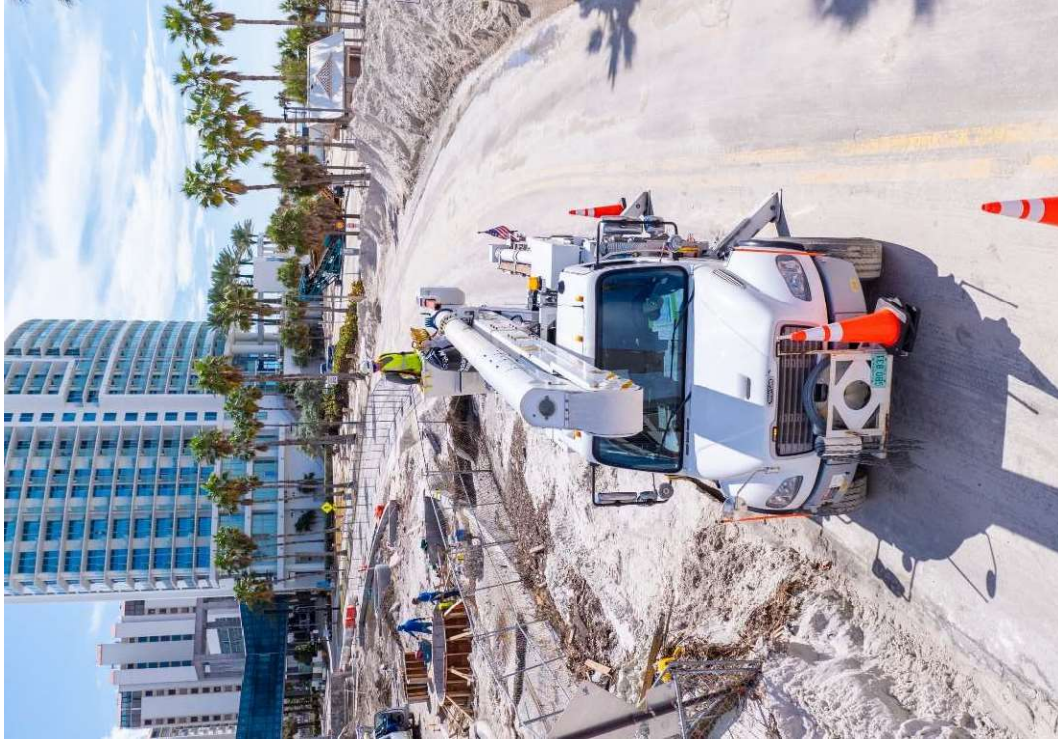
Helene (Cat. 4)

- 800,000 outages reported
- 8,600 resources mobilized
- 925 damaged poles replaced
- 95% of outages (for those able to receive power) restored within **72 hours**

Milton (Cat. 3)

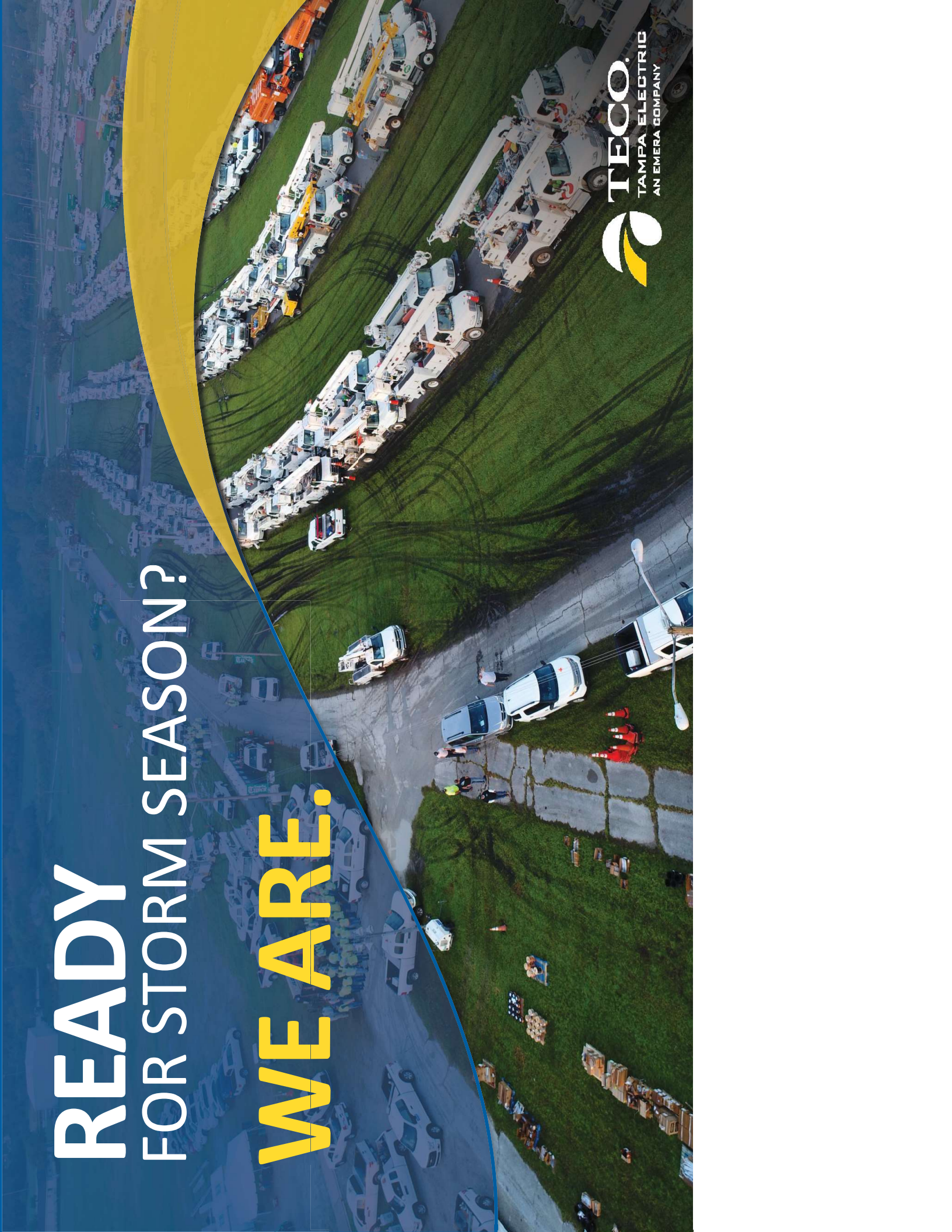
- 1 million outages reported
- 16,000 resources mobilized
- 1,640 damaged poles replaced
- 95% of outages (outside of hardest-hit areas) restored within **96 hours**

*approximate numbers





READY FOR STORM SEASON? WE ARE.



AT A GLANCE: TAMPA ELECTRIC

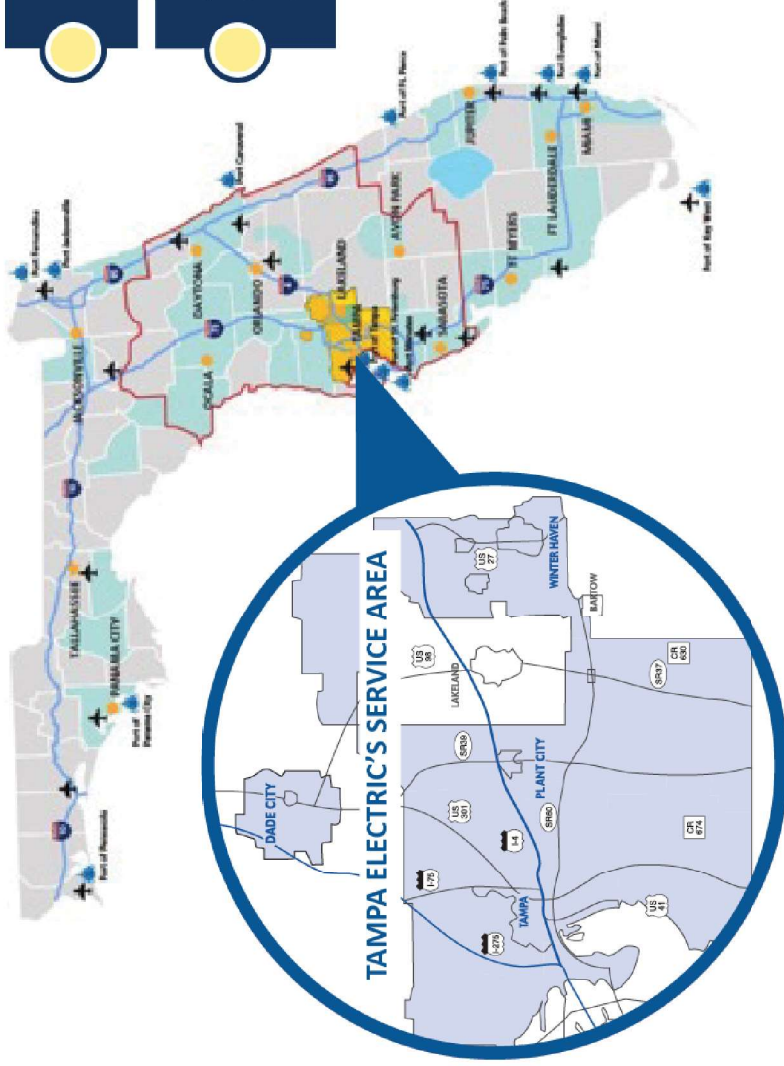
*Focused on Delivering Value for Customers,
Today and Into the Future*

2,000 square miles in West Central Florida

Top solar producer on a per customer basis
with 1,200 MW of photovoltaic solar energy

Three electric generating plants in service, with
generating capability of more than 5,000 MW

Regulated by the Florida Public Service
Commission and the Federal Energy
Regulatory Commission



AT A GLANCE

TAMPA ELECTRIC

*Focused on Delivering Value for
Customers, Today and Into the Future*

125 YEARS
Serving the Community

800,000+
Customers

99.98 %
Service Reliability

Reliability Performance Improvements

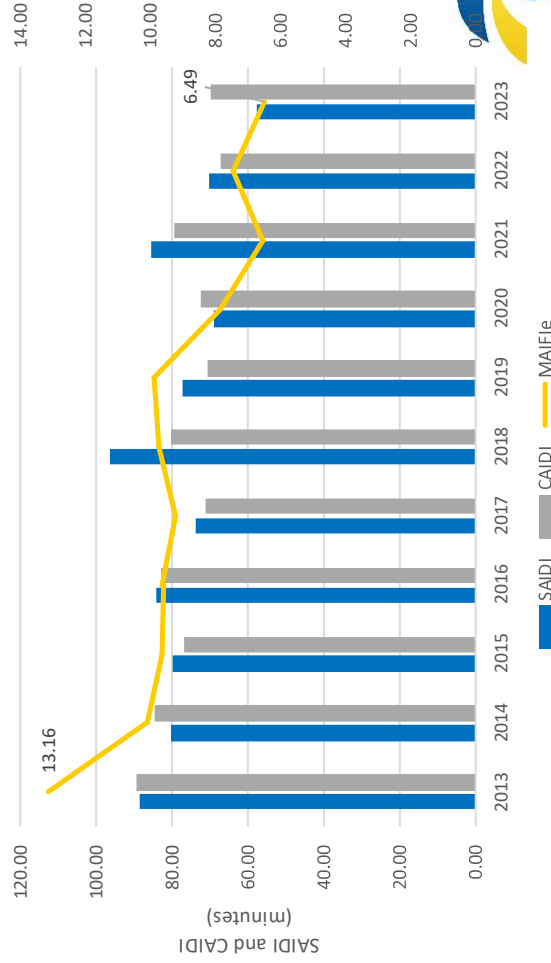
Tampa Electric has steadily increased reliability as demonstrated by fewer outages (SAIFI), shorter outage durations (SAIDI) and reduction in momentary outages (MAIFie).

SAIDI
35%

CAIDI
22%

SAIFI
16%

MAIFie
51%



TECO
TAMPA ELECTRIC
AN EMERA COMPANY

Storm Protection Plan (SPP)

STORM PROTECTION PLAN

Reliable Energy - Rain or Shine



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AN EMERA COMPANY

Storm Protection Plan

 We are making a \$200+ million a year investment toward increasing reliability and providing for faster restoration after storms.

STRENGTHEN POWER LINES

Strengthening power lines with stronger, more storm-resistant poles and improved technology.

CONVERT POWER LINES UNDERGROUND

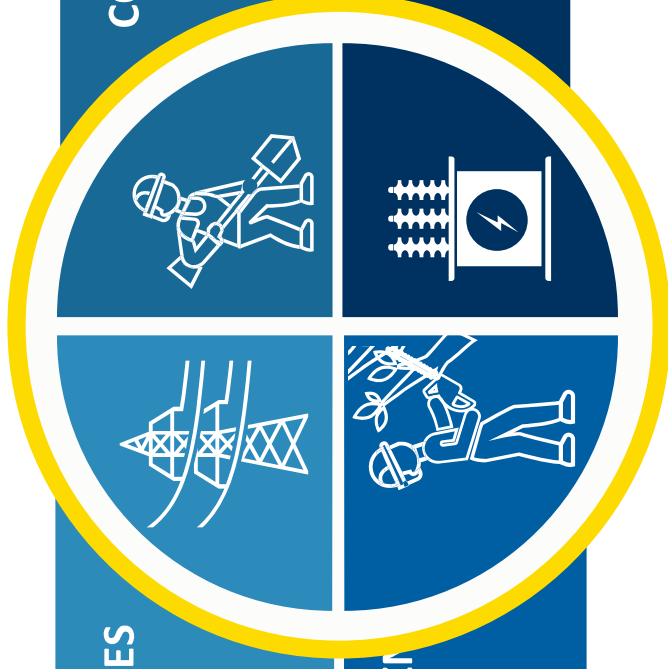
Overhead power lines with the biggest opportunity for improvement after extreme weather will be converted to underground lines.

VEGETATION MANAGEMENT

Tree trimming to help reduce power outages.

SUBSTATION IMPROVEMENTS

Improvements to substations by raising some equipment.

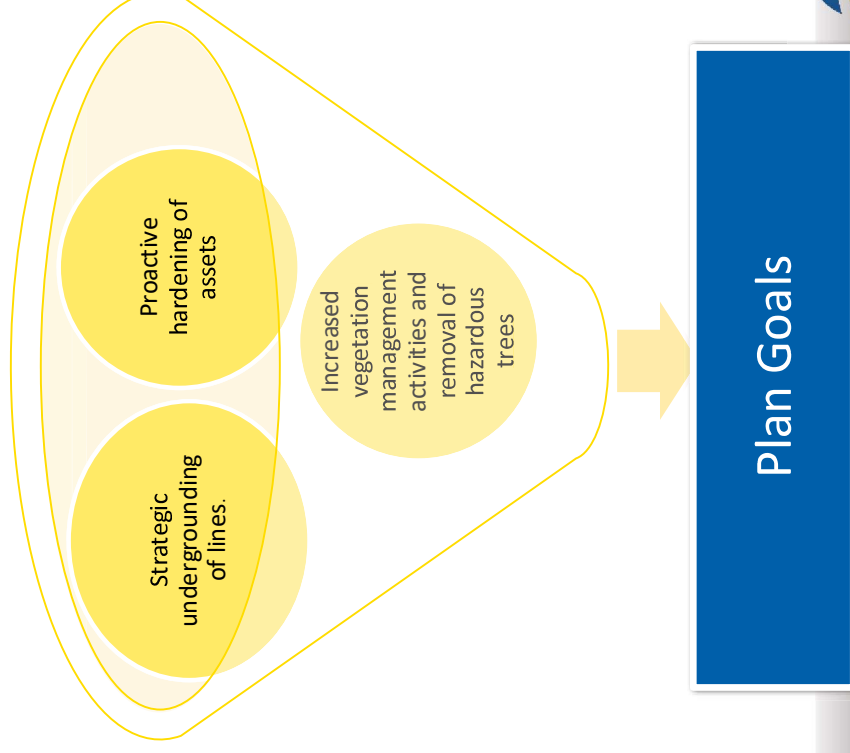


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AN EMERA COMPANY

Storm Protection Plan Goals

Plan Goals

- Reduction in customer outage time (CMI)
- Reduction in storm restoration costs



SPP PROGRAMS

VEGETATION MANAGEMENT

- ~\$30 million per year
- More frequent trims and targeted hazard tree removals

DISTRIBUTION LATERAL UNDERGROUNDING

- ~\$125 million per year in converting laterals
- Target of 70-80 miles per year converted at full scale

FEEDER HARDENING

- ~\$25 million per year
- Approximately 1,000 poles per year
- Enhanced automation to isolate outages, reducing customers impacted

TRANSMISSION ASSET UPGRADE

- ~\$20 million per year
- Converting ~ 500 poles from wood to non-wood annually

SUBSTATION EXTREME WEATHER HARDENING

- Hardening of a subset of strategic substation assets with flooding or storm surge risk
- Raising equipment/control houses

LEGACY STORM HARDENING INITIATIVES

- Inspection and maintenance programs implemented as part of legacy storm hardening plans
- Wood pole inspections and replacement of “failed” poles

SPP PROGRAM RESULTS 2020 - 2024

VEGETATION MANAGEMENT

- More than 15,000 miles trimmed
- Over 3,200 additional hazard trees removed

DISTRIBUTION LATERAL UNDERGROUNDING

- ~ 200 miles of lateral overhead have been converted to underground.

FEEDER HARDENING

- ~3,900 feeder poles have been hardened.
- Nearly 1,000 new devices installed to enable automation and sectionalizing

TRANSMISSION ASSET UPGRADE

- Converted over 2,600 transmission wood pole to non-wood
- Slightly over 1,900 wood transmission poles remaining (8%)

SUBSTATION EXTREME WEATHER HARDENING

- Two MacDill Substation transformers were raised on reinforced concrete foundations
- Two Maritime Substation transformers and a control house will be raised on reinforced concrete in 2025

2025 - SPP 3 – What is new?



Modifying approach of Lateral
Undergrounding to a circuit-based approach.



Accelerating and expanding Substation
hardening efforts.

Proposing two new programs:

- 
- Transmission Switch Hardening
 - Distribution Storm Surge Hardening

Lateral Undergrounding Circuit-based

SPP1 – Sublateral

SPP2 – Main lateral

SPP3 - Reduced start up costs
(mobilization/demobilization)

- improved operational efficiency

Customers are grouped in a more
centralized area - improved customer
experience

Allows for improved tracking and
reporting of performance for both
blue and grey sky days



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Substation Extreme Weather Hardening

Driven by experience with Helene and Milton – multiple substations experienced water intrusion which highlights the urgency to complete this work.



Port Sutton



Double Branch



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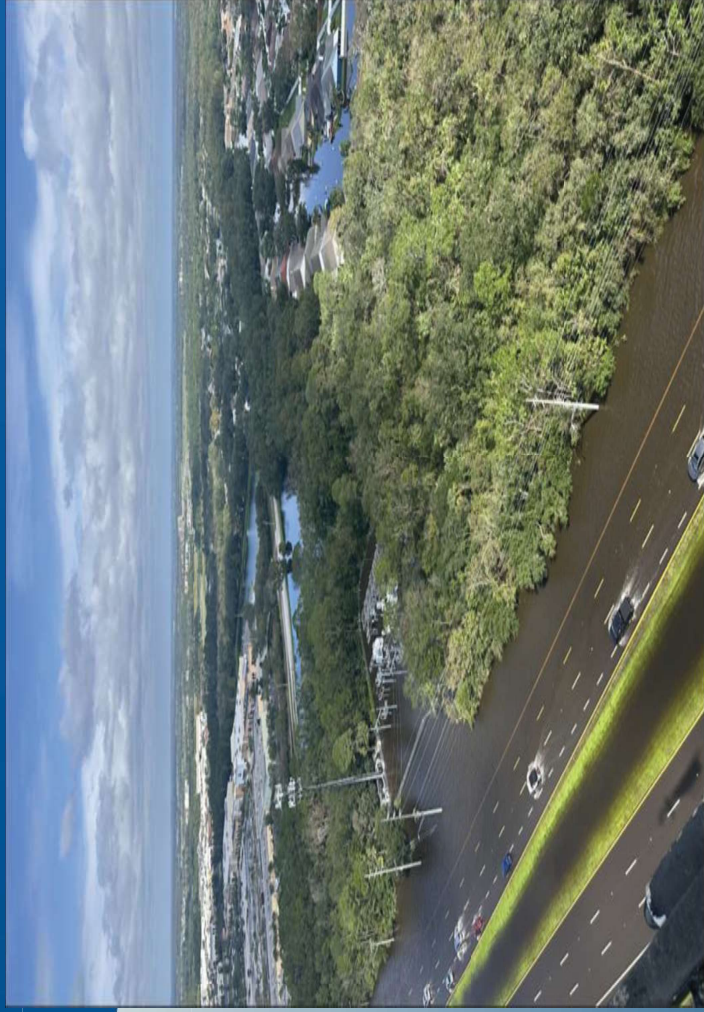
Substation Extreme Weather Hardening



Port Sutton Substation flooding experienced in 2024 Hurricane Season and restoration efforts required to place back in service post-storm. Helene outage two days. Milton outage five days.

Combined damage at Port Sutton and Jackson Road substations approaching \$3 million.

Substation Extreme Weather Hardening (cont'd)



Trout Creek Substation experienced fresh water (rain run off) flooding during 2024 Hurricane Season



First Street Substation experienced storm surge during Hurricane Helene.

Accelerating the pace of substation hardening from previous SPP filings.

Expanding to incorporate substations not previously identified prior to 2024 storms.

SPP 3 – What is new?

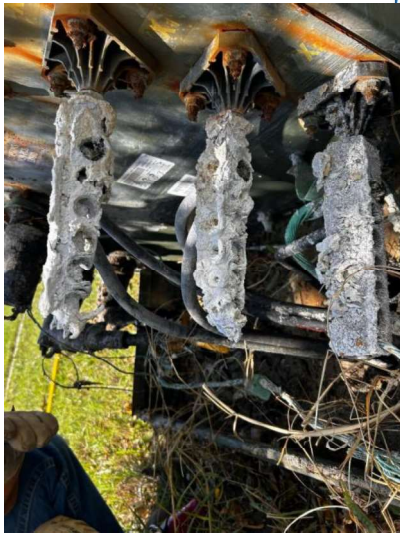
Distribution Surge Protection (proposed)

Replace 500 switchgear in evacuation zones A,B,C with submersible type units.

Retrofitting padmounted transformer secondary connections with insulated type

Provides reduction in customer outages and restoration costs

Total program spend \$34 million over 4 years (2026-2029)



SPP 3 – What is new?

Transmission Switch Upgrades (proposed)



Upgrade 150 gang operated non-SCADA switches to SCADA remote operable switches



Supported by experience with Hurricane Milton – 55 transmission circuits locked out due to faults



Improved technology will increase operational flexibility by avoiding truck rolls, access issues, and travel time



Total program spend \$12 million over 4 years (2028-2031)

Reliability Improvements 2019 vs. 2024



60% Fewer

Tree Related Outages from
2019 to 2024.



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AN EMERA COMPANY

Reliability Improvements 2019 vs. 2024

SAIDI
35%



Shorter Average Outage Duration

CAIDI
34%



Customers who had an
outage were restored
quicker

MAIFie
67%



Dramatically less Flickers



TECO
TAMPA ELECTRIC
AN EMERA COMPANY

Hurricane Milton Results



Estimated community economic benefit of over \$2 Billion with faster restoration.



Undergrounded Laterals performed 75% better than surrounding overhead laterals.



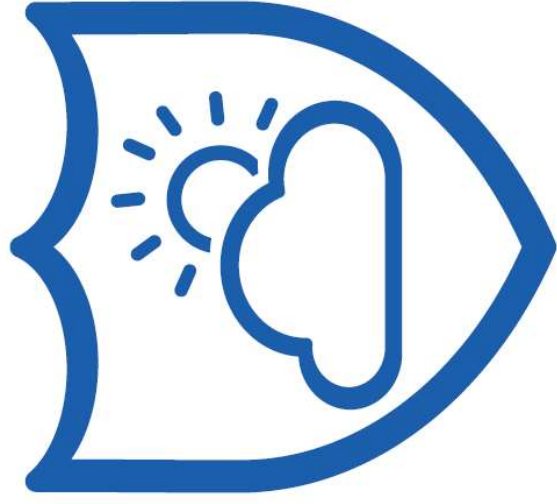
Zero upgraded transmission pole failures.
26 non upgraded wood pole failures.



TECO.
TAMPA ELECTRIC
AN EMERA COMPANY

Questions?

THE STORM PROTECTION PLAN



Thank You

**For more information, visit
www.TampaElectric.com/SPP**





Florida Senate Regulated Industries

Presentation on Storm Recovery and Storm Protection

Kevin Walz, Regional Operations Manager

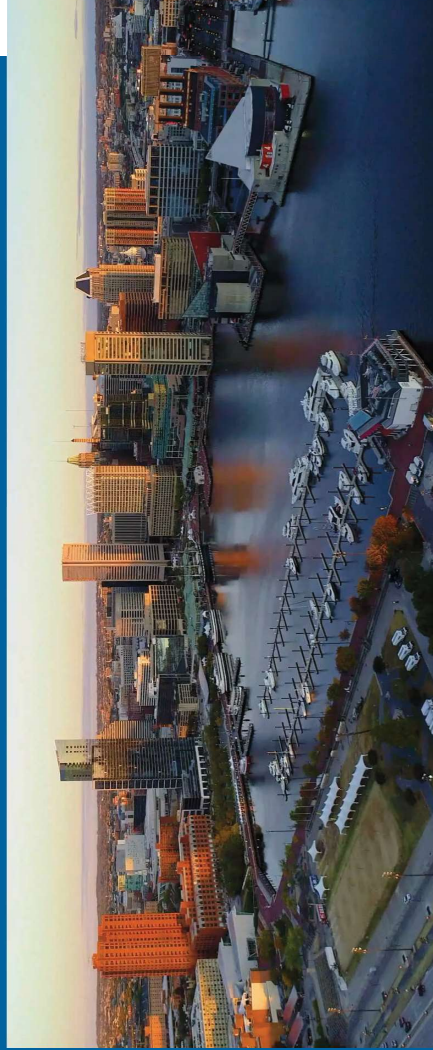
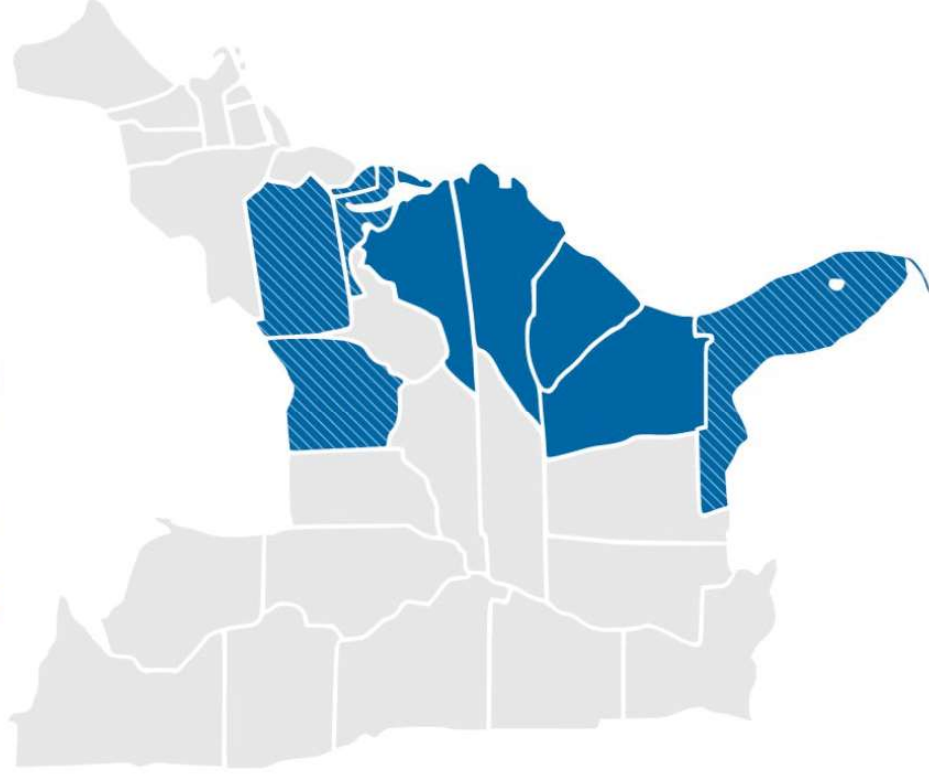
March 4, 2025

k.walz@chpk.com | www.chpk.com | NYSE:CPK



Where We Serve

We provide both regulated and unregulated energy to nine states, and our Marlin subsidiaries operate nationwide.



Serving Florida Communities

Through our six Florida based subsidiaries, we bring reliable energy to residents, business and communities across the state.



Local
Distribution



Intrastate
Transmission



Virtual Pipeline
Services



RNG
Development



Propane
Distribution



Florida Regulated Operations



33,106
Electric Customers



924 Miles
Electric Distribution &
Transmission Line



222,947
Natural Gas Customers



7,464 Miles
Natural Gas Distribution
& Transmission Pipeline

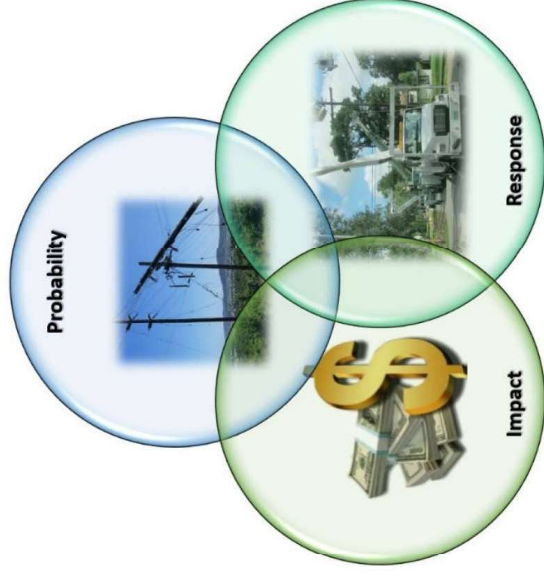


\$2.077 Billion
Assets Operating in State

** As of December 31, 2024*

FPUC's Storm Protection Plan

- Requires all Florida electric utilities to develop a 10-year resiliency and reliability plan. Updates to the FPUC plan are at least every three years
- FPUC filed its first SPP on April 11, 2022, which was approved with modifications on November 10, 2022
- Rates associated with this initiative were effective in January 2023
- In October 2024, the Florida PSC approved the Company's projected 2025 SPP costs of \$20.4 million for both capital and operating expenses
- Key aspects of the SPP promote:
 - Overhead hardening of electrical facilities
 - Undergrounding of certain electrical distribution lines
 - Distribution poles and transmission system inspections and replacements
 - Vegetation management
- FPUC's SPP is a combination of previously Commission-approved storm hardening initiatives, as well as new Programs which are grounded on a methodology of resiliency risk scores across FPUC's Distribution system



New Hardening Programs

Feeder Hardening

FPUC system contains approximately 141 miles of overhead feeder backbone lines across 29 feeders. The Overhead Feeder Hardening Program systematically upgrades all 141 miles to NESC 250C Extreme wind standards.

Lateral Hardening

FPUC systems contain approximately 575 miles of overhead lateral lines across 29 feeders. The Overhead Lateral Hardening Program systematically upgrades key laterals to NESC 250C extreme wind standards.

Lateral Undergrounding

Overhead Lateral Undergrounding Program addresses the systematic undergrounding in place or relocation and undergrounding of the single phase overhead electric facilities, many of which are in heavily vegetated areas, environmentally sensitive areas, or in areas where upgrading the overhead construction to NESC extreme wind standards is not practical.

Timeline

2022 – Designs started

2023 – Designs completed, materials ordered, and some work started

2024 – First full year

2025 – Continued execution

Comp or Active	Northeast		Northwest	
	Comp	In Prog	Comp	In Prog
Feeder Hardening	3.21	5.67	6.76	0
Lateral Hardening	1.33	0.63	0	1.56
Lateral Undergrounding	1.85	1.74	0	0
Total	6.39	8.04	6.76	1.56

Legacy Hardening Programs

Distribution Pole Inspections and Replacements

Eight (8) year wood pole inspection and replacement program in alignment with FPSC Order No. PSC-06-0144. FPUC began its third 8-year cycle in 2024. Poles that fail inspection are replaced to NESC 250C Extreme wind standards. 2022 and 2023 focus was on eliminating the backlog of failed poles in the Northwest territory following hurricane Michael.

Transmission Inspection & Hardening

The 138kV Transmission system in the NE Division was constructed using concrete poles, steel poles, and steel towers. The 69kV transmission system consists of a total of 217 poles of which 134 are concrete and 83 are wood structures. Program focused on the replacement of wood poles to concrete structures. A detailed 2024 inspection of the system, found a number of compromised wood poles due to woodpecker damage.

Transmission & Distribution Vegetation Management

The T&D Vegetation Management program works towards the accomplishment of a four-year vegetation management cycle. Approximately 141 miles of overhead feeders and approximately 575 Miles of overhead laterals on the system.

Pole backlog at end of year

2021	2022	2023	2024
570	468	72	0 ¹

1 estimated projection



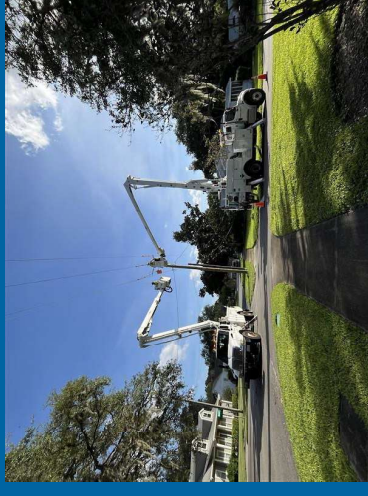
SPP Progress and Accomplishments

	2022	2023	2024	2025
Feeder Hardening	- Contract partner contracts executed - Engineering Started	- Initial designs completed - Engineering acceleration to build project backlog - Development of processes - Material procurements - Construction started	- Acquisition of storage facilities allowing for mass material purchases. - Continued engineering of projects - Assignment of a SPP Program Manager. - Continued construction and onboarding of additional construction crews	Steady state execution of design and construction activities
Lateral Hardening				
Lateral Undergrounding				
Distribution Pole Inspection & Replacements	Backlog reduction acceleration	- Backlog significantly reduced 3,286 Poles inspected 465 Poles replaced	Backlog eliminated	Steady state inspections and replacements
Transmission Inspection & Hardening	Designs Started	Materials ordered	11 poles replaced - System Inspection completed	Accelerated pole replacements
Transmission & Distribution Vegetation Management		- Switched to 4-year trim cycle - Trimmed 65.22 miles of distribution feeders* - Trimmed 98.22 miles of distribution laterals	- New vendor contract established - Four year trim cycle	Expected improvements in quality and efficiency

2024 Hurricane Season

Hurricane Helene

- Helene made landfall in the Florida Panhandle on September 26 around 11pm
- Operations teams activated Emergency Response Plans (ERP) on September 23, well ahead of the storm
- Indications were that the NW Division would be significantly impacted
- Storm shifted, saving the NW Division, but strong winds (75mph+) impacted the NE Division beginning around midnight on September 27
- The ground on Amelia Island was already saturated from recent flooding, which weakened tree root systems
- 12,728 customers (72.54%) were without power at height of outage- mainly due to vegetation
- As per the ERP, transmission lines were cleared first, followed by substation feeders, substation laterals and individual addresses
- Majority of customers were back on September 27 by 10:30pm
- The speed of restoration is a testament to employee dedication, excellent execution of the ERP, and the resiliency improvements made with the SPP



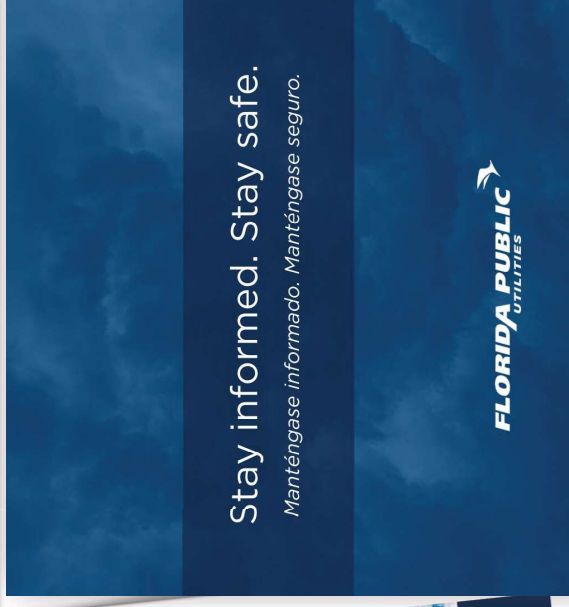
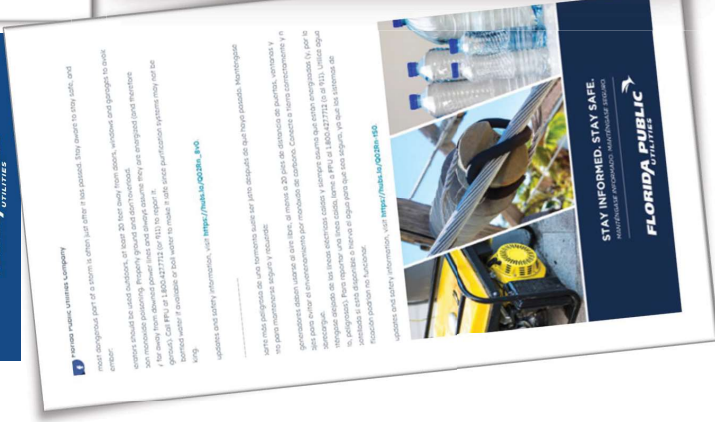
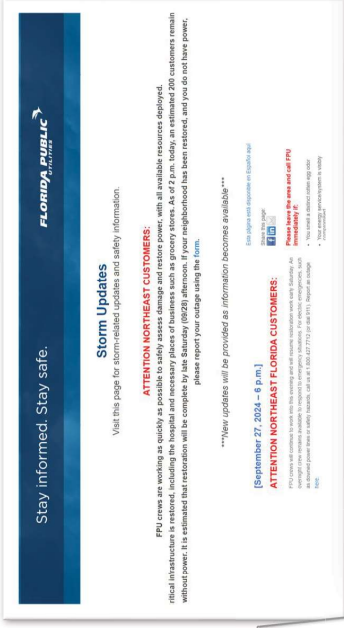
2024 Hurricane Season

Hurricane Milton

- Hurricane Milton made landfall on October 9th as a Category 3 near Siesta Key
- ERP's were activated on October 8th
- Many tornadoes spawned by the hurricane in our service territories, but we were spared significant damage

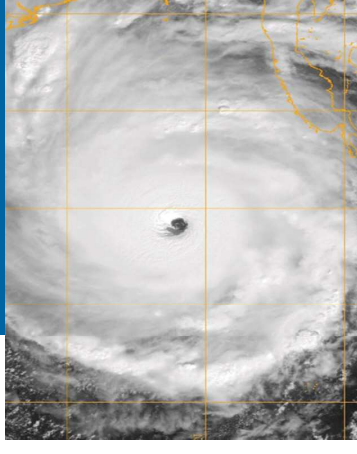
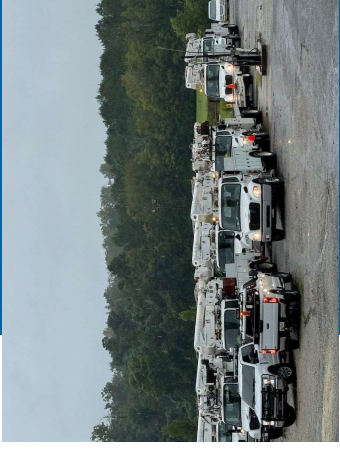
Storm Communications

- Communications to stakeholders before and after the storm
 - Public news releases
 - Customer and employee email campaigns
 - Notifications and updates to local, city and state officials
 - Social media posts and dedicated landing page
- 139,718 total stakeholder engagements (emails opened & visitors to websites)



Improvements Based on Lessons Learned

- Continue to order material earlier due to supply chain disruptions
- Implement more use of drones to use during emergency to take pictures or to survey the area for damage
- Include record keepers with each crew working to document labor, materials and equipment used during restoration
- Increase security at offices and staging areas to prevent unauthorized individuals from entry
- Continue to invest in all Storm Protection Plan initiatives
- Continue to invest in technology that advances hurricane prediction and communications
- Continue to improve GIS,OMS, IVR implementations and other technologies



Thank you!

kwalz@chpk.com





FLORIDA OFFICE
OF
PUBLIC COUNSEL

CUSTOMER CONCERNS:

STORM RECOVERY AND PROTECTION

WALT TRIERWEILER
PUBLIC COUNSEL

Storm Recovery

Docket	Company	Storm	Amount
20240149-EI	Florida Power & Light Company	Debby, Helene, Milton	\$1,200,000,000
20240173-EI	Duke Energy Florida, LLC.	Debby, Helene, Milton	\$1,090,000,000
20240172-EI	Tampa Electric Company	Idalia, Debby, Helene, Milton	\$463,600,000

Total: \$2,753,600,000

(These amounts are subject to revision due to ongoing litigation.)

Storm Recovery

THE GOOD NEWS:

- 2024 was the most cooperative storm season ever according to IOUs, COOPs, and Florida Cities.
- The storm initiatives to review and contain storm costs developed in 2018 and included in the 2019 settlement agreements are working to reduce storm recovery costs.

Storm Recovery

CUSTOMER CONCERN 1:

- If the rate and intensity of severe storms continue, the storm surcharges may begin to compound, or “pancake,” on customer’s bills.

CUSTOMER CONCERN 2:

- This would further worsen the rate impact on customers given the increased frequency of rate increase requests.

Storm Recovery

THE WAY AHEAD:

- The costs related to the frequency, rapid intensification, and increased damage caused by recent storms already fall heavily on Florida's IOU customers. What if this is the new normal?
- Storms are a Florida problem that requires that we improve our planning, resources, and response to storms. IOUs and IOU customers should not have to bear 100% of these costs.

Storm Protection

§ 366.96, FLA. STAT. (2024).

- 1(c): It is in the state's interest to strengthen electric utility infrastructure to withstand extreme weather conditions by promoting the overhead hardening of electrical transmission and distribution facilities, the undergrounding of certain electrical distribution lines, and vegetation management.
- 1(e): It is in the state's interest for each utility to mitigate restoration costs and outage times to utility customers when developing transmission and distribution storm protection plans.
- 1(f): All customers benefit from the reduced costs of storm restoration.

Storm Protection

§ 366.96, FLA. STAT. (2024). (*Cont.*)

- STORM PROTECTION PLANS (SPP)
 - 10-year Storm Hardening Plan
 - Investor-owned electric utilities must update and submit their SPPs to the Florida Public Service Commission at least every three years for approval, approval with modification, or denial.
 - Once an SPP is approved, “proceeding with actions to implement the plan shall not constitute or be evidence of imprudence.”

Storm Protection

§ 366.96, FLA. STAT. (2024). (*Cont.*)

- SUBSECTION 5:
 - Within 180 days of submission of the SPPs, the Florida Public Service Commission shall determine whether the SPPs are in the public interest.
 - Per the Florida Supreme Court, the SPP statute does not require utilities to prove that their SPP investments will be prudent or cost-effective.

Storm Protection

Citizens of State v. Fay, 396 So. 3d 549, 557-58 (Fla. 2024).

- “[T]he SPP Statute calls for a review of the utilities’ SPPs to determine if they are in the public interest, and not whether the investments they propose are, in the sense in which the term has been used in this carefully drafted statute, prudent.”
- “As a matter of colloquial speech, an imprudent investment or cost may not be in the public interest. But while it speaks plainly, the statute does not speak colloquially.”

Storm Protection

CUSTOMER CONCERN 3:

- The lack of a prudence/cost-effectiveness evaluation of SPP investment encourages utilities to invest in storm hardening without consideration of the costs or the benefits to be achieved.

CUSTOMER CONCERN 4:

- The Commission does not have a mechanism to limit SPP spending when the point of diminishing returns has been reached.

Storm Protection

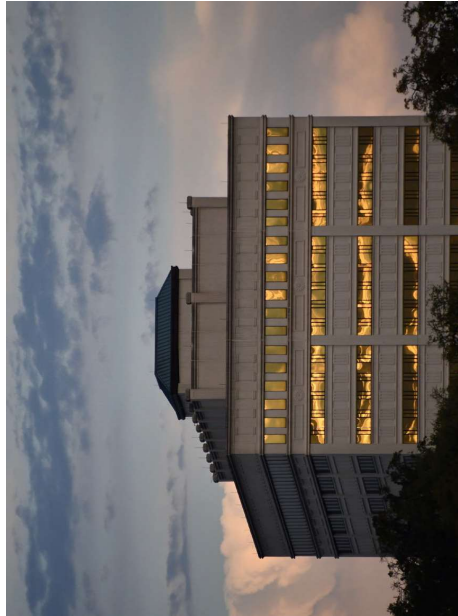
CUSTOMER CONCERN 5:

- The “state interest” findings in the statute cause investor-owned utility customers to pay more than their fair share for grid hardening that benefits all Floridians.

**FLORIDA OFFICE
OF PUBLIC COUNSEL**

QUESTIONS

**WALT TRIERWEILER
PUBLIC COUNSEL
OFFICE OF PUBLIC COUNSEL
(850) 711-0326
TRIERWEILER.WALT@LEG.STATE.FL.US**



APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

3/4/25

Meeting Date

Regulated Industries

Committee

PSC

Bill Number or Topic

Committee

Amendment Barcode (if applicable)

Mark Fattrell

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850 413 6050

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32399

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State

Speaking: ☐ For☐ Against☒ Information**OR**Waive Speaking: ☐ In Support☐ Against☒ I am appearing without compensation or sponsorship.☐ I am a registered lobbyist, representing:☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:**PLEASE CHECK ONE OF THE FOLLOWING:**

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. § 11.045 and Joint Rule 1. 2020-2022 Joint Rules.pdf (flsenate.gov)

This form is part of the public record for this meeting.

S-001 (08/10/2021)

APPEARANCE RECORD

Meeting Date

3/4/25

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Regulated Industries

Senate professional staff conducting the meeting

Committee

Anely Pankratz

Bill Number or Topic

n/a

Amendment Barcode (if applicable)

n/a

Name

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Juno Beach FL

State

33408

Zip

City

Speaking:

☐ For

☐ Against

☒ Information

OR

Waive Speaking:

☐ In Support

☐ Against

☐ I am appearing without compensation or sponsorship.

☐ I am a registered lobbyist, representing:

☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

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S-001

(08/10/2021)

APPEARANCE RECORD

Storm Recovery & Storm Protection

3/4/25

Meeting Date

Regulated Industries

Committee

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Senate professional staff conducting the meeting

Bill Number or Topic

N/A

Amendment Barcode (if applicable)

407-938-6603

Phone

Brian Lloyd, Duke Energy

Name

Brian.Lloyd@Duke-Energy.com

Email

3250 Bonnet Creek Road

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Orlando

City

Florida

State

32830

Zip

Speaking: ☐ For ☐ Against ☒ Information **OR** Waive Speaking: ☐ In Support ☐ Against

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S-001 (08/10/2021)

APPEARANCE RECORD

Storm Recovery & Storm Protection

3/4/25

Meeting Date

Bill Number or Topic

Regulated Industries

Deliver both copies of this form to
Senate professional staff conducting the meeting

N/A

Committee

Amendment Barcode (if applicable)

Todd Fountain, Duke Energy

727-384-7892

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Phone

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Saint Petersburg

Florida

33710

City

State

Zip

Speaking: ☐ For

☐ Against

☒ Information

Waive Speaking:

☐ In Support

☐ Against

OR

☐ I am appearing without
compensation or sponsorship.

☐ I am a registered lobbyist,
representing:

☐ I am not a lobbyist, but received
something of value for my appearance
(travel, meals, lodging, etc.),
sponsored by:

PLEASE CHECK ONE OF THE FOLLOWING:

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This form is part of the public record for this meeting.

APPEARANCE RECORD

Meeting Date

3-4-25

Deliver both copies of this form to
Senate professional staff conducting the meeting

Reg. Industries

Committee

Name

Chip Whitworth

Address

702 N. Franklin St.

Street

Tampa

State

FL

Zip

33602

Phone

813-228-9111

Email

cswhitworth@senate.fl.gov

Bill Number of Topic

Storm Runway & Protection

Amendment Barcode (if applicable)

Speaking: ☐ For ☐ Against☒ Information

OR

Waive Speaking: ☐ In Support ☐ Against☐ I am appearing without
compensation or sponsorship.☐ I am a registered lobbyist,
representing:☐ I am not a lobbyist, but received
something of value for my appearance
(travel, meals, lodging, etc.),
sponsored by:

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S-001 (08/10/2021)

APPEARANCE RECORD

Meeting Date

3-4-25

Deliver both copies of this form to

Regulated Industries

Senate professional staff conducting the meeting

Committee

Kevin Walz

Name

Bill Number or Topic

Storm Protection

Amendment Barcode (if applicable)

850-382-4153

Phone

Kwalz@chpk.com

Email

208 Wildlight Ave

Address

Street

Yulee FL 32097

City

State

Zip

Speaking: ☐ For☐ Against☒ Information**OR**Waive Speaking: ☐ In Support☐ Against**PLEASE CHECK ONE OF THE FOLLOWING:**☐ I am appearing without compensation or sponsorship.☐ I am a registered lobbyist, representing:☐ I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

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S-001 (08/10/2021)

The Florida Senate

APPEARANCE RECORD

Tuesday, March 4, 2025

Meeting Date

Deliver both copies of this form to

Regulated Industries

Senate professional staff conducting the meeting

Bill Number or Topic

Committee

Amendment Number (if applicable)

Walt Trierweiler

#850-717-0326

Name

Phone

111 W. Madison St., Suite 812

trierweiler.walt@leg.state.fl.us

Address

Email

City

Tallahassee

FL

32399-1400

State

Zip

Speaking:

☐ For

☐ Against

☒ Information

OR

Waive Speaking:

☐ In Support

☐ Against

☒ I am appearing without compensation or sponsorship.

☐ I am a registered lobbyist, representing:

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CourtSmart Tag Report

Room: KB 412
Caption: Senate Committee on Regulated Industries

Case No.: -

Type:
Judge:

Started: 3/4/2025 4:00:03 PM
Ends: 3/4/2025 5:58:13 PM **Length:** 01:58:11

4:00:07 PM	Chair Pizzo calls meeting to order
4:00:10 PM	Roll Call
4:00:28 PM	Quorum
4:00:31 PM	Opening remarks by Chair Pizzo
4:00:50 PM	Chair Pizzo introduces presentation
4:01:08 PM	Mark Futrell, Deputy Executive Director, Technical, Florida Public Service Commission
4:21:07 PM	Questions
4:21:14 PM	Senator Ingoglia
4:22:08 PM	Mark Futrell
4:22:36 PM	Chair Bradley introduces presentation
4:22:55 PM	Andy Pankratz, Vice President of Transmission & Substation, Florida Power & Light Company
4:38:18 PM	Questions
4:38:23 PM	Senator Pizzo
4:39:06 PM	Andy Pankratz
4:40:23 PM	Senator Pizzo
4:41:30 PM	Andy Pankratz
4:41:43 PM	Senator Fine
4:42:03 PM	Andy Pankratz
4:42:06 PM	Senator Fine
4:43:06 PM	Andy Pankratz
4:43:26 PM	Senator Fine
4:43:42 PM	Senator Bernard
4:44:10 PM	Andy Pankratz
4:45:02 PM	Senator Bernard
4:45:12 PM	Andy Pankratz
4:45:58 PM	Chair Bradley introduces presentation
4:46:09 PM	Brian Lloyd, General Manager, Power Grid Operations, Duke Energy
4:50:51 PM	Todd Fountain, General Manager, Emergency Preparedness, Duke Energy
4:56:20 PM	Brian Lloyd
4:57:19 PM	Questions
4:57:25 PM	Senator Fine
4:57:43 PM	Brian Lloyd
4:57:58 PM	Senator Burgess
4:59:16 PM	Todd Fountain
4:59:49 PM	Senator Ingoglia
5:00:32 PM	Brian Lloyd
5:01:15 PM	Senator Ingoglia
5:01:30 PM	Brian Lloyd
5:01:57 PM	Chair Bradley introduces presentation
5:02:10 PM	Chip Whitworth, Vice President, Electric Delivery, TECO Energy
5:10:39 PM	Questions
5:10:41 PM	Senator Fine
5:10:52 PM	Chip Whitworth
5:11:31 PM	Chair Bradley introduces presentation
5:12:01 PM	Kevin Walz, Regional Manager of Operations, Chesapeake Utilities Corporation
5:24:30 PM	Andy Pankratz
5:24:50 PM	Senator Fine
5:25:11 PM	Andy Pankratz
5:25:13 PM	Senator Fine
5:25:23 PM	Senator Pizzo
5:25:29 PM	Andy Pankratz
5:25:31 PM	Senator Pizzo

5:25:39 PM	Andy Pankratz
5:25:42 PM	Senator Pizzo
5:26:03 PM	Brian Lloyd
5:26:13 PM	Chair Pizzo introduces presentation
5:26:18 PM	Walt Trierweiler, Public Counsel
5:40:45 PM	Questions
5:40:49 PM	Senator Fine
5:41:13 PM	Walt Trierweiler
5:41:16 PM	Senator Fine
5:41:38 PM	Walt Trierweiler
5:42:11 PM	Senator Fine
5:42:40 PM	Walt Trierweiler
5:43:55 PM	Senator Fine
5:44:44 PM	Walt Trierweiler
5:45:38 PM	Senator Fine
5:46:08 PM	Walt Trierweiler
5:47:30 PM	Senator Fine
5:48:06 PM	Walt Trierweiler
5:48:58 PM	Senator Pizzo
5:49:17 PM	Walt Trierweiler
5:49:20 PM	Senator Pizzo
5:49:38 PM	Walt Trierweiler
5:49:40 PM	Senator Pizzo
5:49:48 PM	Walt Trierweiler
5:50:03 PM	Senator Pizzo
5:50:23 PM	Walt Trierweiler
5:50:30 PM	Senator Ingoglia
5:51:13 PM	Walt Trierweiler
5:53:40 PM	Senator Ingoglia
5:54:44 PM	Walt Trierweiler
5:55:14 PM	Senator Ingoglia
5:55:22 PM	Walt Trierweiler
5:55:32 PM	Senator Ingoglia
5:55:37 PM	Walt Trierweiler
5:57:02 PM	Chair Bradley
5:57:47 PM	Walt Trierweiler
5:58:02 PM	Senator Bernard moves to adjourn
5:58:04 PM	Meeting Adjourned