The Florida Senate

COMMITTEE MEETING EXPANDED AGENDA

COMMUNICATIONS, ENERGY, AND PUBLIC UTILITIES
Senator Bean, Chair
Senator Montford, Vice Chair

MEETING DATE: Tuesday, October 10, 2017
TIME: 2:00—4:30 p.m.
PLACE: 301 Senate Office Building

MEMBERS: Senator Bean, Chair; Senator Montford, Vice Chair; Senators Broxson, Campbell, Clemens, Grimsley, Stargel, and Young

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1		Presentation by Public Service Commission - Rules relating to electric infrastructure and solar panel interconnection	Presented
2		Presentation by Investor Owned Electric Utilities - Hurricane Irma	Presented
		Other Related Meeting Documents	

Review of Hurricane Preparedness and Restoration

Presentation to the

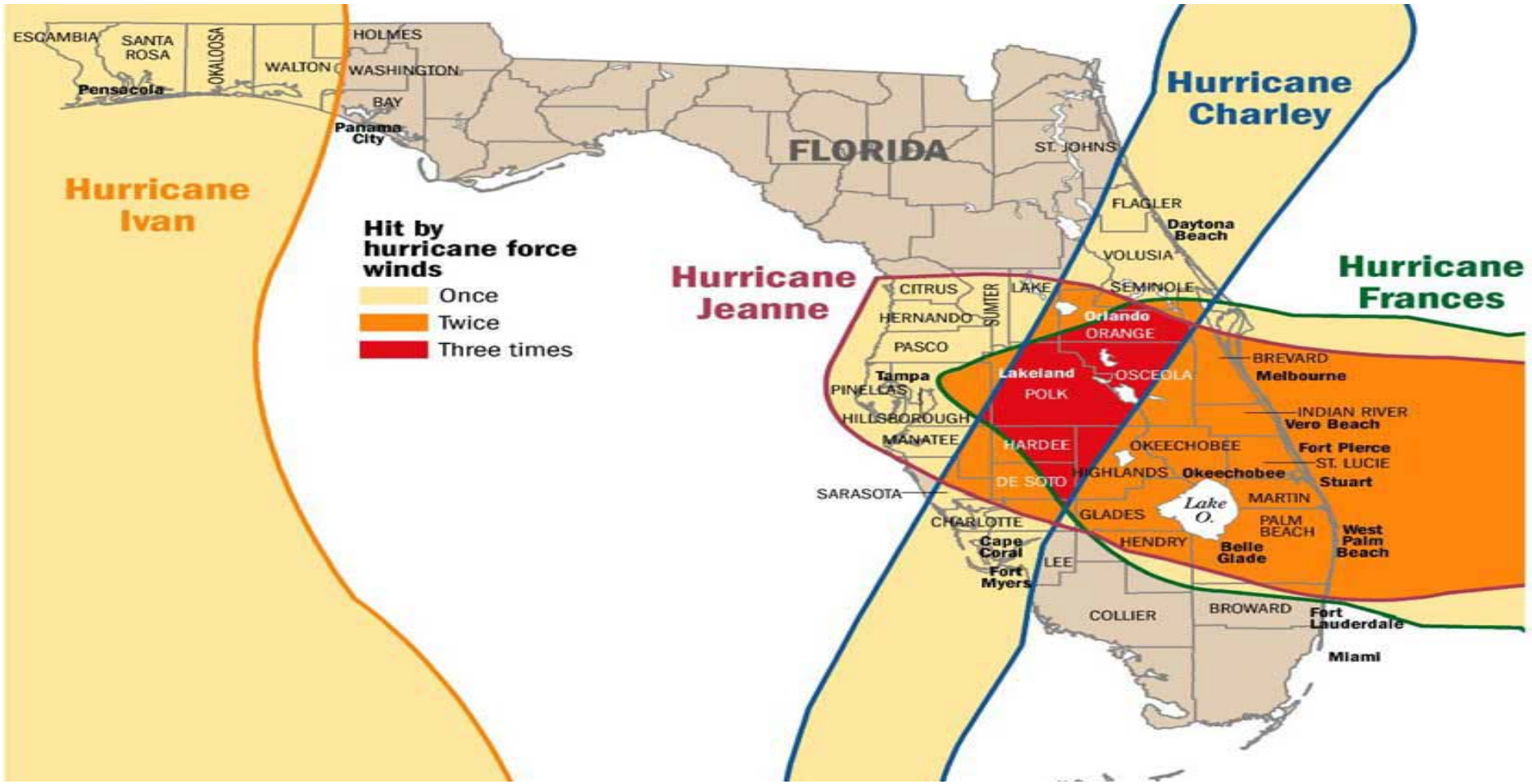
Senate Committee on Communications, Energy, and Public Utilities

Cayce Hinton, Director
Office of Industry Development and Market Analysis
Florida Public Service Commission
October 10, 2017

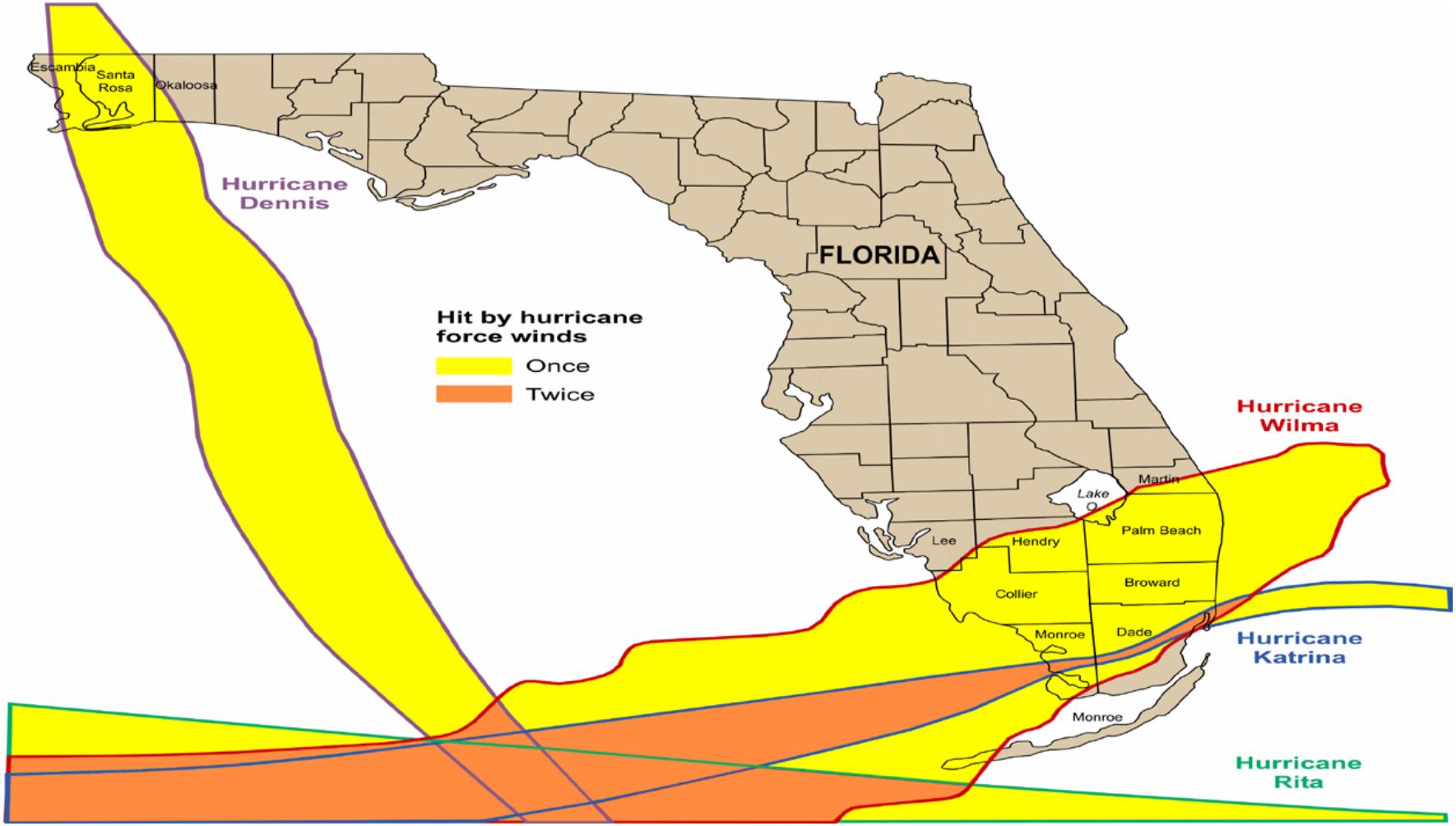
Overview

- Legislative and Florida Public Service Commission (FPSC) Actions
- FPSC's Multi-faceted Approach to Storm Hardening
- FPSC Outreach
- Restoration
- Next Steps
- PV Interconnection

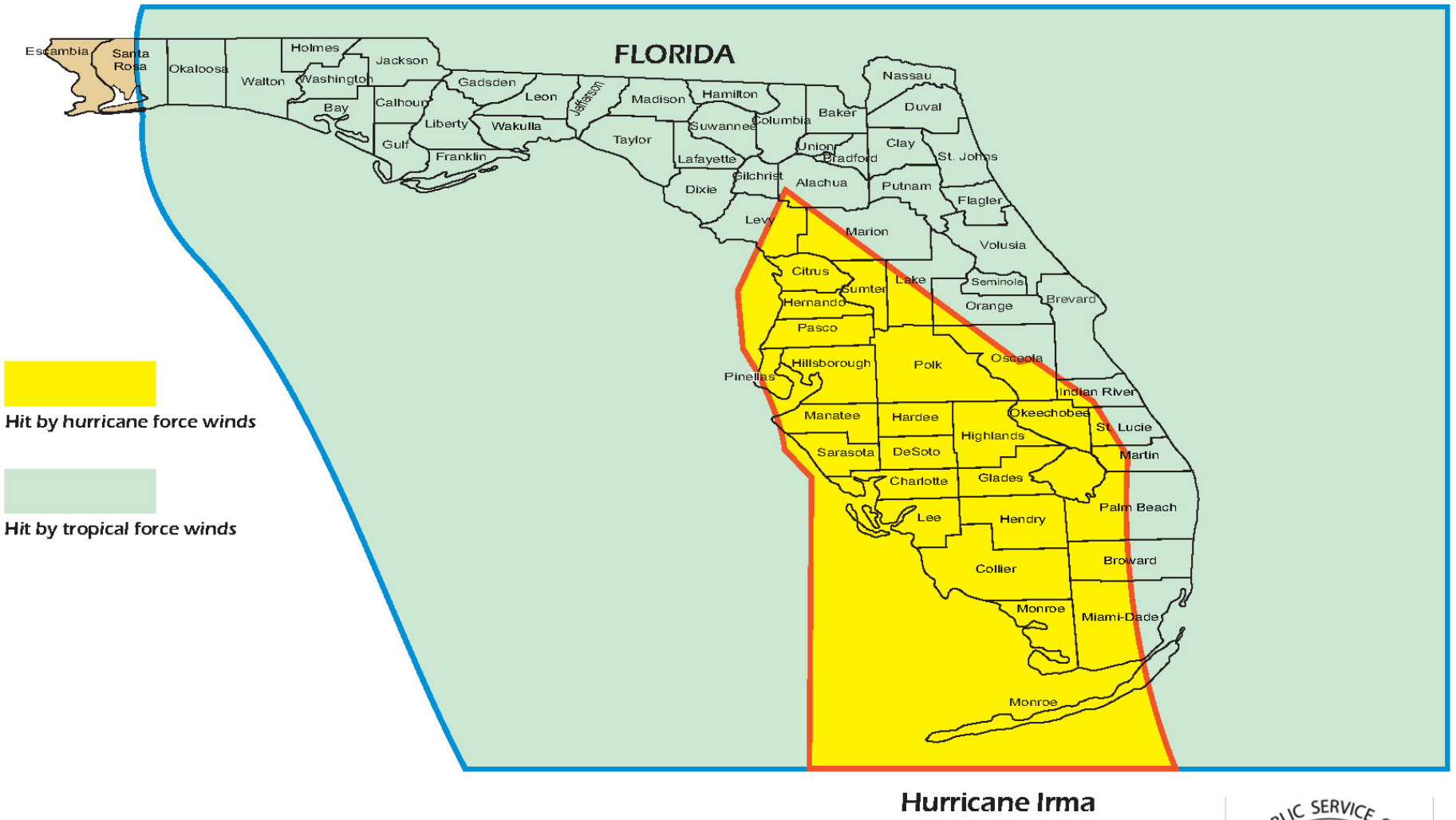
2004 Hurricane Paths



2005 Hurricane Paths



2017 Hurricane Path



Legislative Actions

- 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 Senate, and Speaker of House.

Legislative Actions

- Report on Transmission System Reliability and Response to Emergency Contingency Conditions in the State of Florida. (March 2007)

➢ Report to the Legislature on Enhancing the Reliability of Florida's Distribution and Transmission Grids During Extreme Weather (July 2007)

- Addendum to the July 2007 Report: Summary of Commission Actions May - December 2007 (February 2008)

- Update to July 2007 Report (July 2008)

http://www.floridapsc.com/ElectricNaturalGas/EnergyInfrastructure

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.

FPSC's Multi-faceted Approach

- Utilities and telephone companies to inspect 100% of wooden poles within an eight year cycle. Report results annually.
- Annual hurricane preparedness briefings.
- Additional distribution reliability reporting for IOUs, Munis, and Coops.

FPSC's Multi-faceted Approach

- Ten 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

FPSC's Multi-faceted Approach

- New rule to locate distribution facilities in readily accessible and safe locations.
- New rules that require IOUs to file storm hardening plans for review every 3 years.
- New rules and tariffs to promote the undergrounding of distribution facilities.

FPSC Outreach

- Since 2006, the FPSC has conducted annual hurricane preparedness meetings with Florida's Investor-Owned Electrical Utilities. The following are examples of the topics that are addressed:
  - Report of inspections, maintenance and repairs completed and scheduled.
  - Changes made to hurricane drills and to storm preparedness plans.
  - Status update on progress towards storm hardening goals.
  - Identify any lessons learned if the utility was involved in any relief efforts in other areas.
  - Outreach programs the utility is currently involved with.

FPSC Outreach

- On April 20, 2017, the FPSC held a Hurricane Preparedness Roundtable where:
  - Division of Emergency Management staff presented an overview about the State's Emergency Operations Center.
  - Presidents and CEOs of the five IOUs provided an overview of their utilities' hurricane preparedness with focus on customer outreach, storm hardening efforts, and lessons learned from hurricanes Hermine and Matthew.
- The current and past presentations are available on the FPSC's website:

  http://www.floridapsc.com/ElectricNaturalGas/HurricanePreparationWorkshops

FPSC Outreach

- The FPSC's webpage contains links to resources to help residents prepare for storm season. The resources include an interactive page, called Hurricane House, which provides tips addressing safety before, during, and after a hurricane:

  http://www.floridapsc.com/ConsumerAssistance/HurricaneHouse

- Another resource is called Florida Be Prepared, which provides a check list in case of a power outage:

  http://www.floridapsc.com/Files/PDF/Publications/Consumer/Brochure/BePrepared.pdf

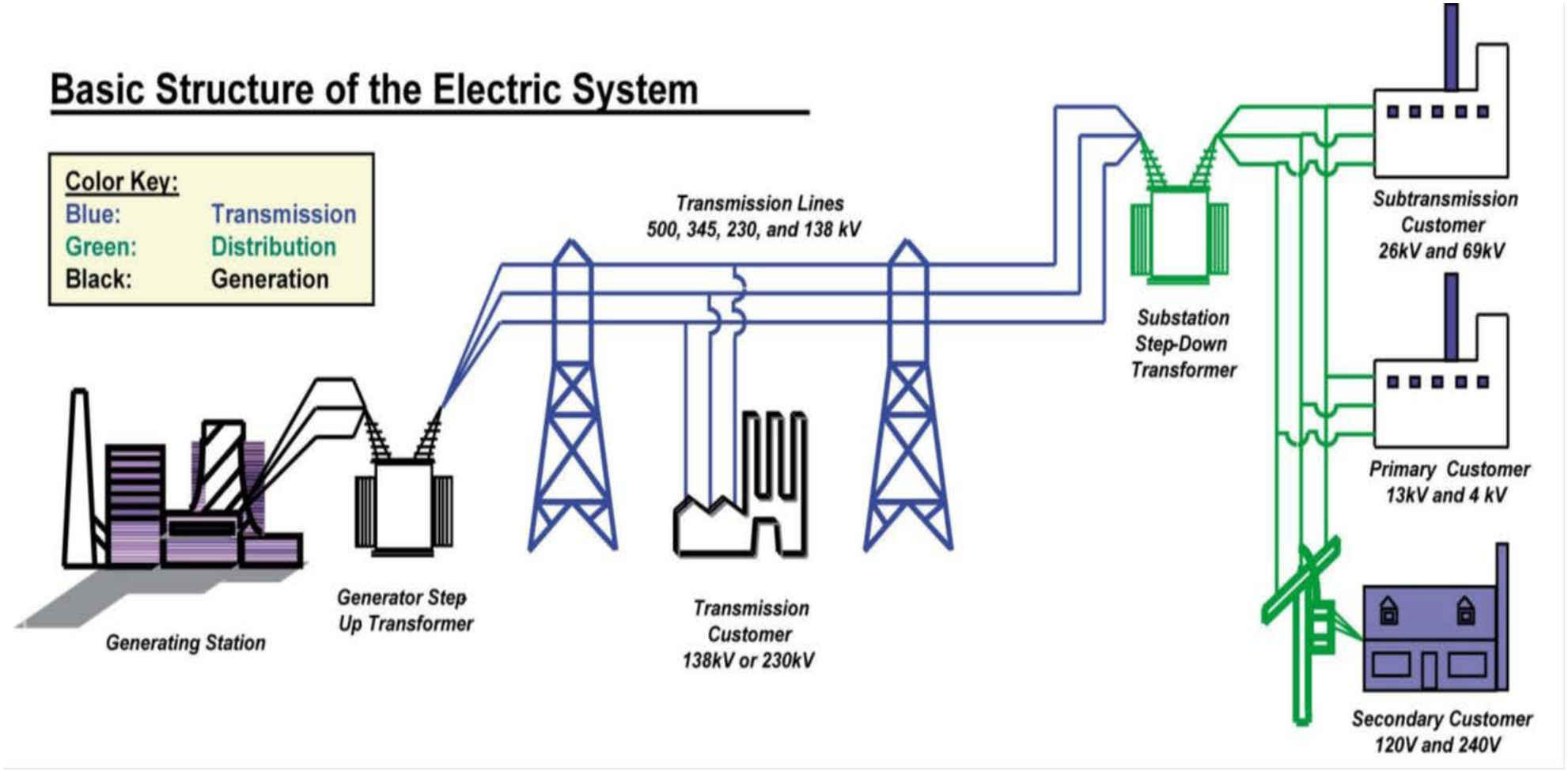
- The FPSC also provides hurricane preparation material to customers during customer meetings and consumer outreach events.

Restoration

- During an emergency/disaster situation, the FPSC provides staffing of Emergency Support Function 12.

- Role is to maintain communication with utility representatives to determine response and recovery needs and to assist support agencies and organizations to identify emergency shelter power needs or other emergency power needs.

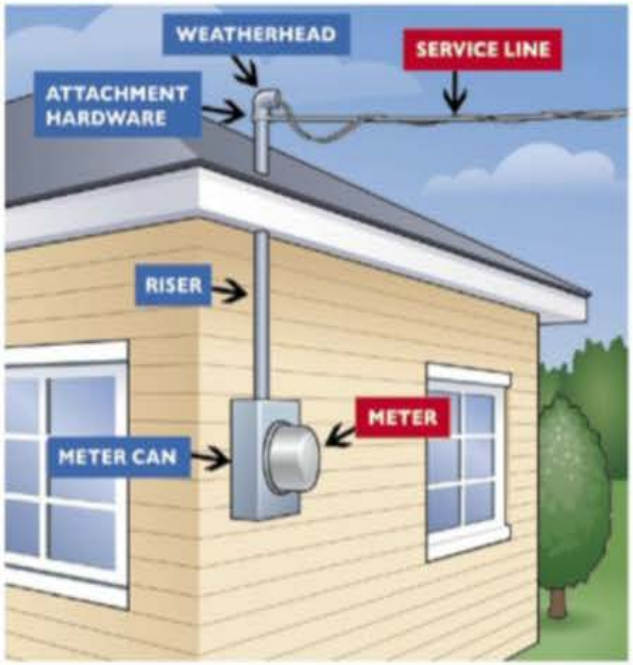
Restoration

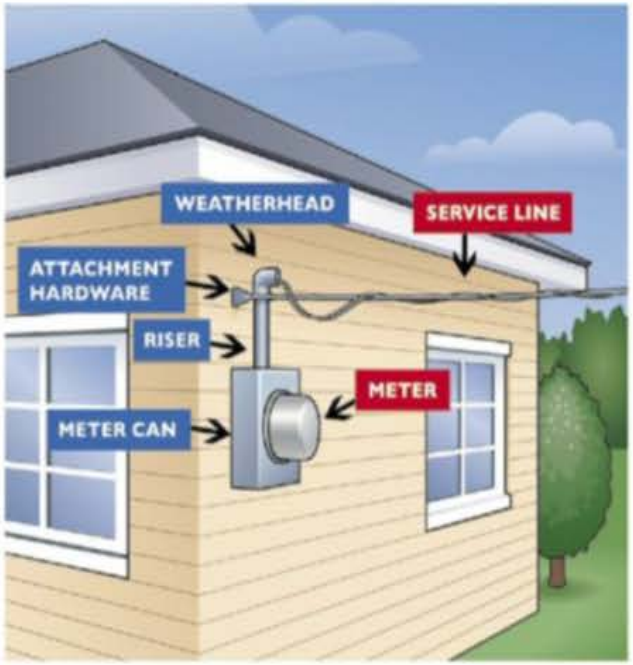


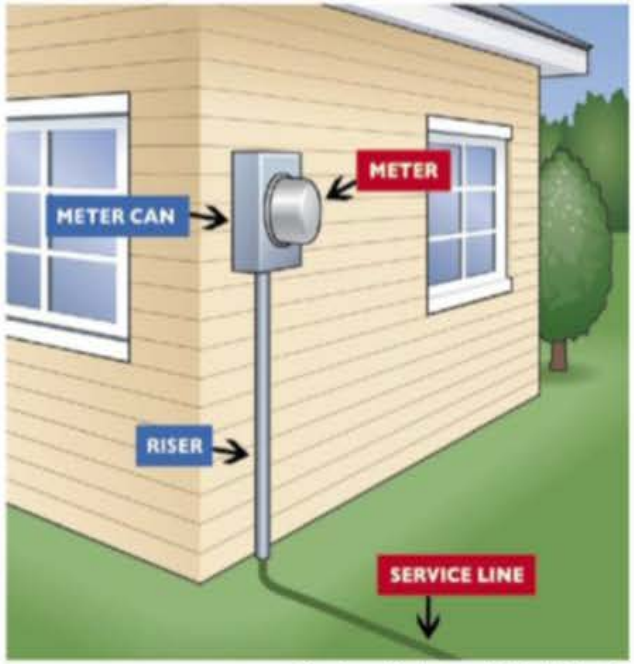
Restoration

WHO IS RESPONSIBLE FOR FIXING WHAT?

If your electrical components are damaged, you may be responsible for repairs. Identify your type of service connection below to learn what your responsibilities are.



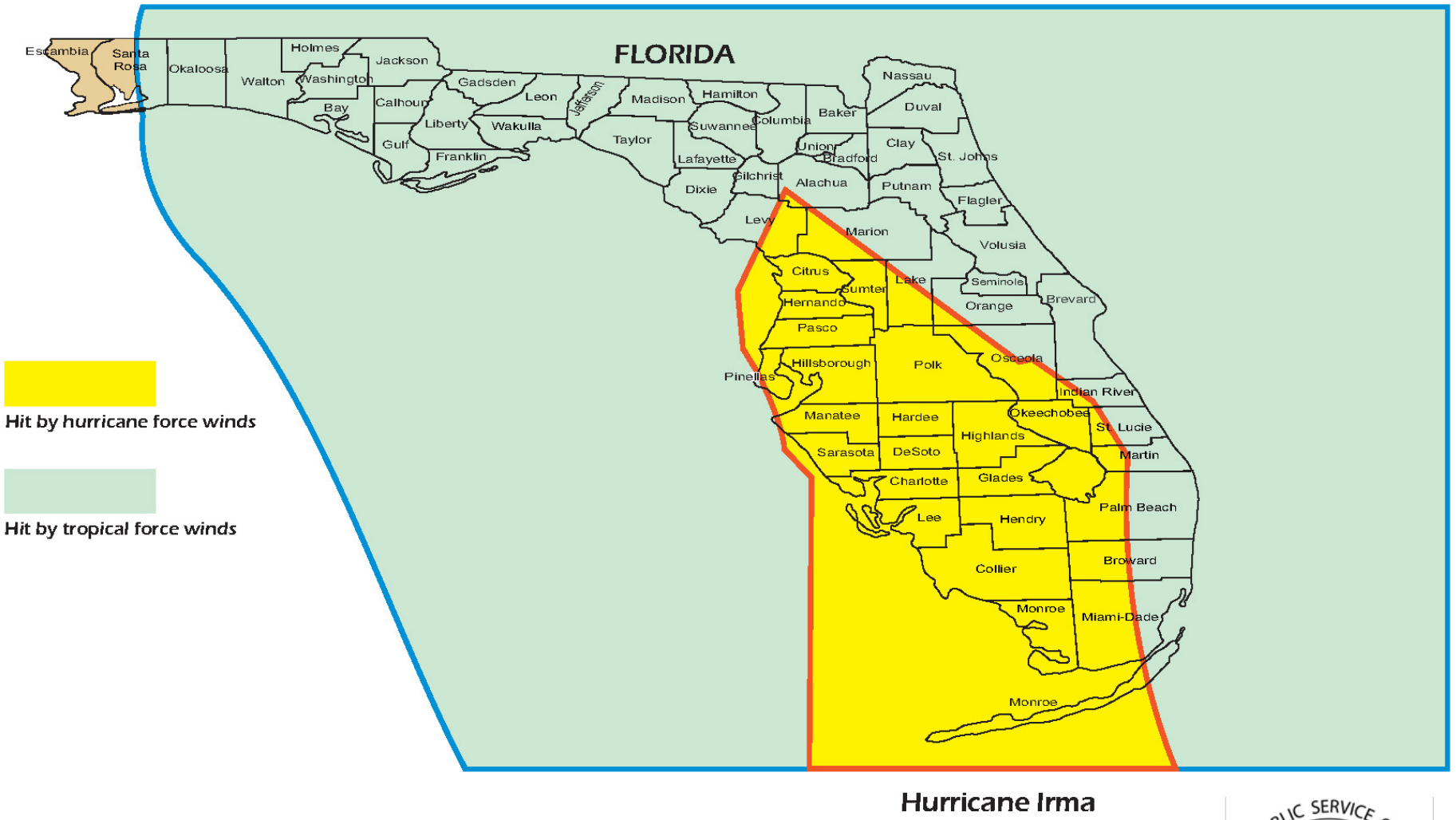




Courtesy: Kissimmee Utility Authority

CUSTOMER RESPONSIBILITY **UTILITY RESPONSIBILITY**

2017 Hurricane Path



Next Steps

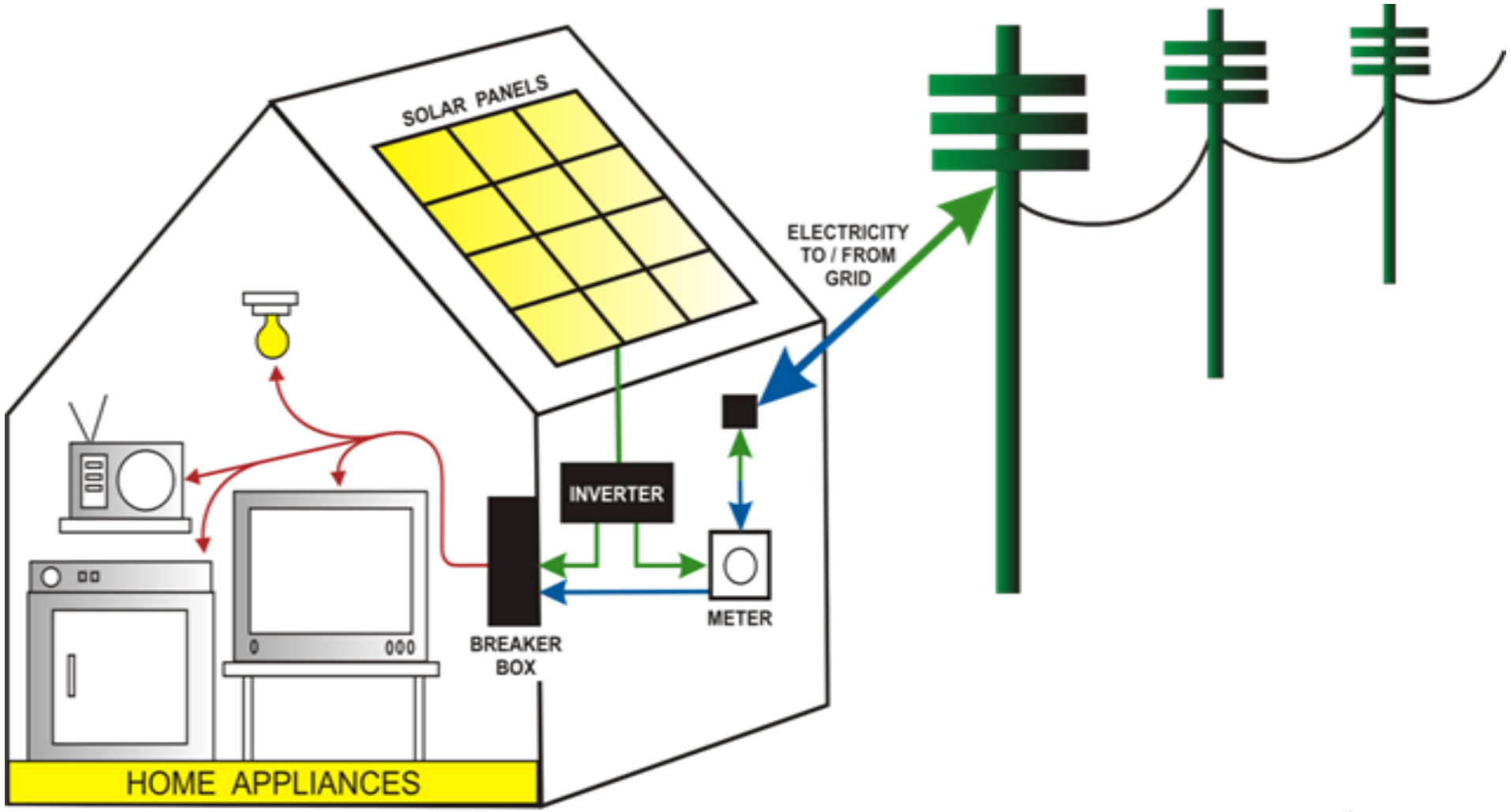
- On October 3, 2017, the FPSC directed its staff to open a generic docket (20170215-EU) to review utility hurricane preparedness and restoration activities.

- An objective is to collect and analyze forensic data, review tree trimming practices, and review pole inspection cycles to assist in identifying potential additional damage mitigation options.

- The FPSC will also review restoration practices for potential improvements.

- A generic docket provides a publicly accessible vehicle for the FPSC to collect information from the utilities and stakeholders, including customers.

Interconnection & Net Metering



Rule 25-6.065, F.A.C. – Interconnection and Net Metering of Customer-Owned Renewable Generation

- (4)(c) – Utility-interactive inverter that automatically isolates the customer-owned generation equipment from the electric grid in the event the grid loses power.

- (6)(a) – Manual disconnect switch between the AC power output of customer generation and any wiring connected to the utility system. Required for Tier 2 & 3 customer systems, but only at utility's expense for Tier 1 systems .

Questions?

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/10/17
Meeting Date

Bill Number (if applicable)

Topic Hurricane Preparedness & Restoration

Amendment Barcode (if applicable)

Name Cayce Hinton

Job Title Director, Office of Industry Development and Market Analysis

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City *State* *Zip*

Email chinton@psc.state.fl.us

Speaking: ☐ For ☐ Against ☒ Information

Waive Speaking: ☐ In Support ☐ Against
(The Chair will read this information into the record.)

Representing Florida Public Service Commission

Appearing at request of Chair: ☒ Yes ☐ No

Lobbyist registered with Legislature: ☐ Yes ☒ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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

S-001 (10/14/14)

TECO
TAMPA ELECTRIC
AN EMERA COMPANY

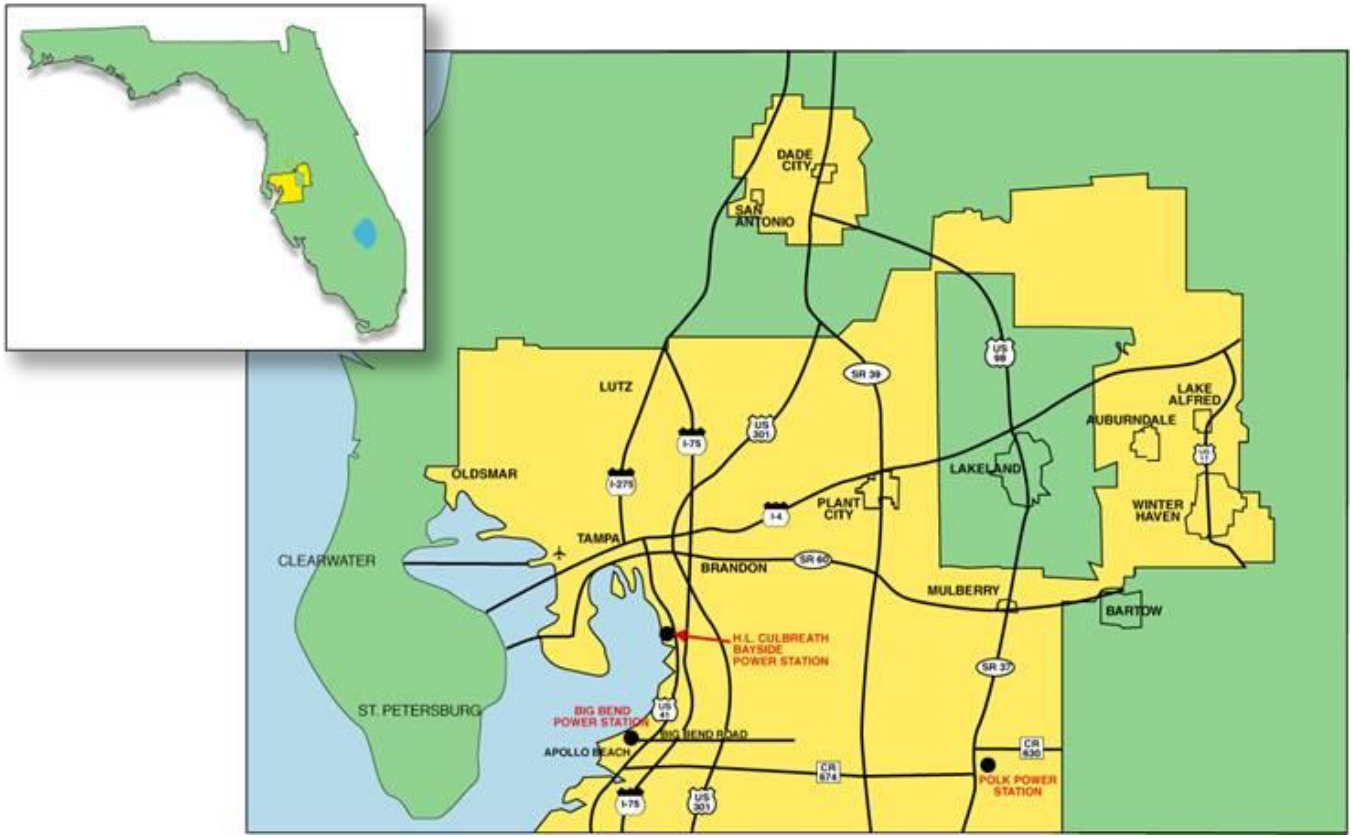
Hurricane Irma Preparation & Restoration Report

To the Senate Communications, Energy & Public Utilities Committee

October 10 , 2017

TECO
TAMPA ELECTRIC
AN EMERA COMPANY

Tampa Electric Service Area

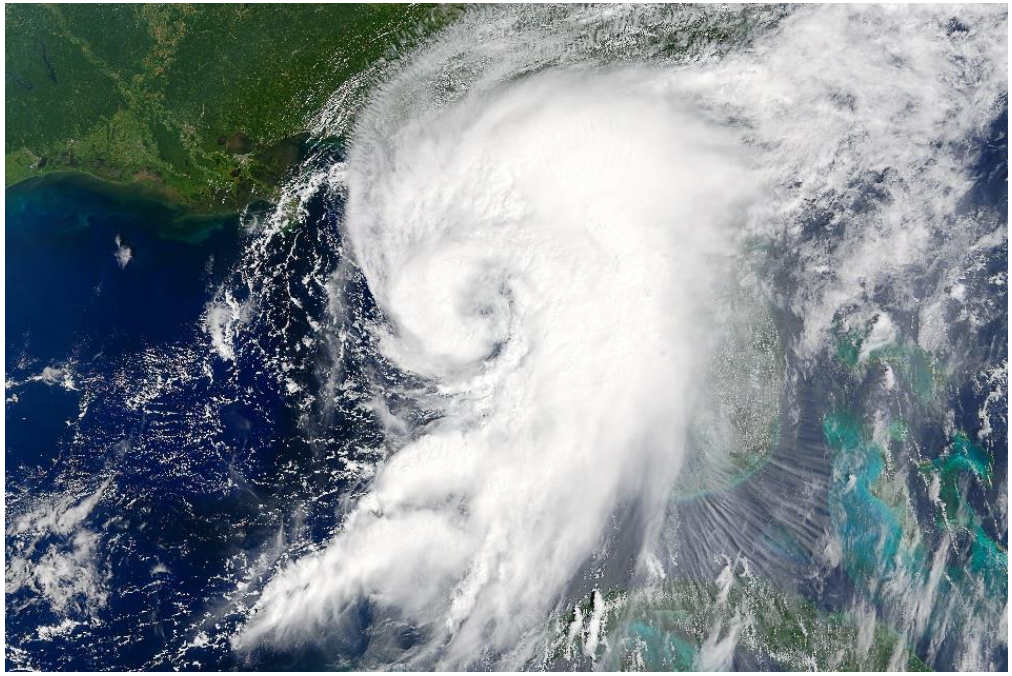


- 752k Customers
- 2000 Sq. Miles
- 11,400 Dist. Miles
- 1300 Trans. Miles
- 5000 MW's Generation Capacity

TECO TAMPA ELECTRIC AN EMERA COMPANY

Tampa Electric – Hurricane Irma Report

- Long-Term Preparations
- Coordination among Governor, State & Local EOCs, Utilities for the largest storm mobilization in Florida history
- Pre-Storm Planning
- Preparation & Restoration
- Customer Experience & Communications
- Successes & Lessons Learned



TECO TAMPA ELECTRIC AN EMERA COMPANY

Strengthen our System

Since 2004, TECO has invested $516+ million to harden our system. In the next three years, TECO will invest $160 million more.

In 2016, we:

- Trimmed trees along 1,300+ miles of line
- Upgraded nearly 6,000 poles
- Hardened 1,000+ structures

TECO TAMPA ELECTRIC AN EMERA COMPANY

Prepare our People

- Training
- Mock storm drills
- Federal, state & local coordination
- Technology to improve response

TECO TAMPA ELECTRIC AN EMERA COMPANY

Command Centers

Team of mobile incident bases, consisting of:

- Seven Fold-Out Rigid Temporary Shelter (FORTS)
- Temporary office space in the field
- Mobile command center

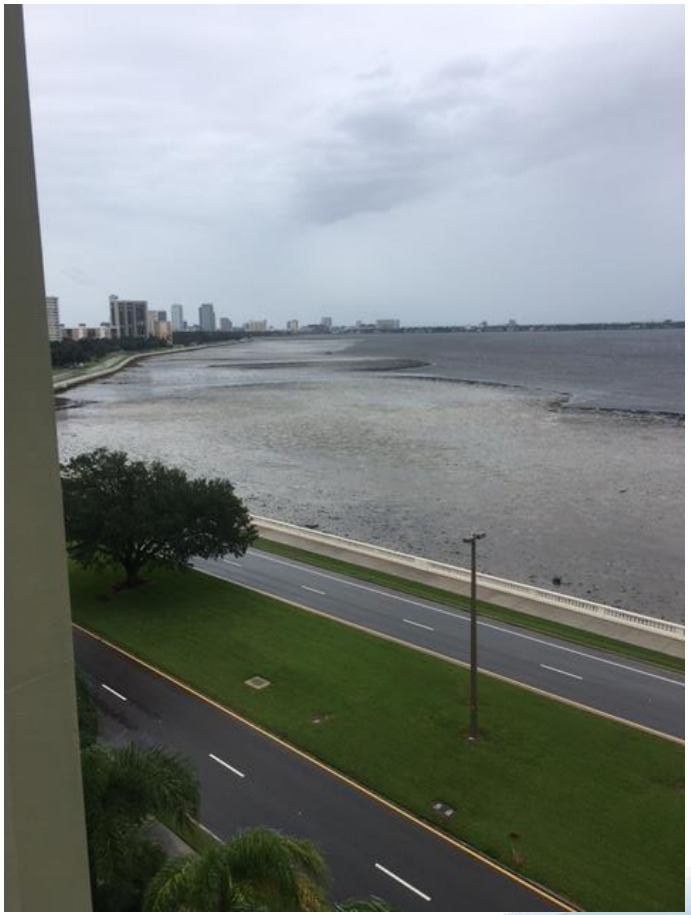
TECO
TAMPA ELECTRIC
AN EMERA COMPANY

Restoration Response

- Resource acquisition & staging
- Logistics support
- Damage assessment
- Resource management
- Work management
- Customer Experience
- Communications

State Coordination

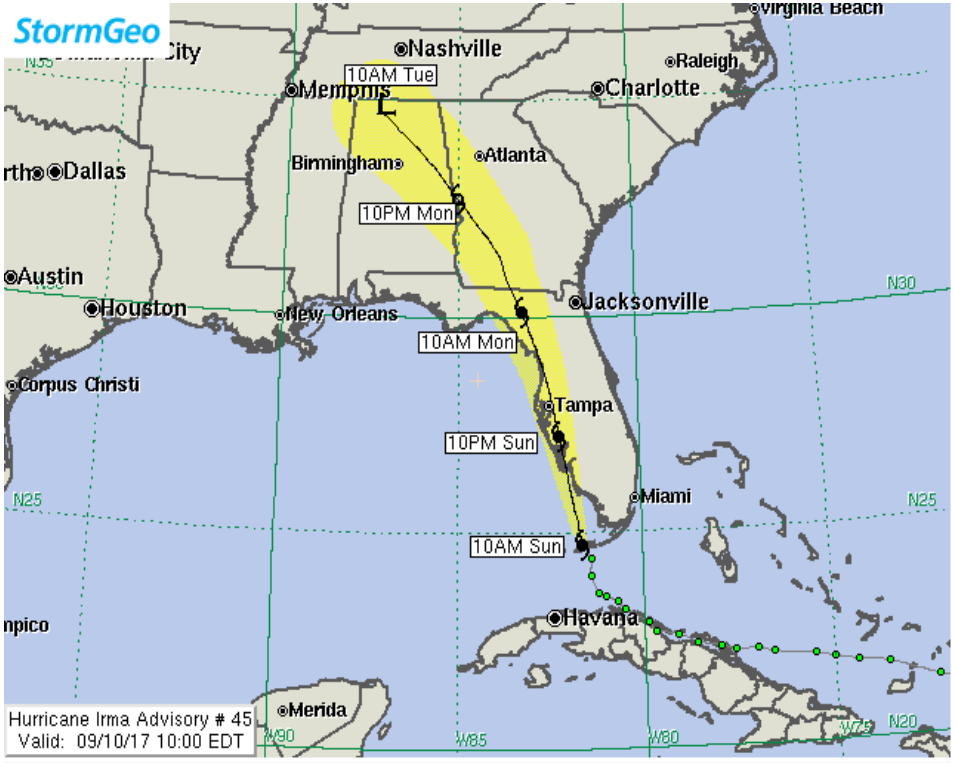
- Strong coordination led by Governor with Utilities to ensure availability of all requisite resources
- Utility personnel embedded in state and local EOC's
- Committed field resources to support emergency response requirements
- Good communication on pre, during, and post storm activities and status including life and safety related restoration priorities:
  - Hospitals
  - Water & Sewer Facilities
  - First Responders – Police, Fire, 911 systems



TECO TAMPA ELECTRIC AN EMERA COMPANY

Preparation and Restoration

- Initial planning for Irma began on Sept. 3
- As close as 72 hours away from Florida , the forecasted track was middle to east coast
- From then, the forecast continually shifted west, and we planned for a more significant event
- Resource acquisition and lodging were challenging, due to competition from other utilities and roughly 5 million Florida residents evacuating
- Final foreign resources acquired through S.E.E., regional mutual aid groups and contractor networks:
  - 2,521 distribution line resources
  - 621 tree workers
  - 266 damage assessors



Forecast Confidence: Above Average							Hurricane Severity Index		
Fcst Hour	Valid	Lat.	Lon.	Max Sustained Winds	Max Gusts	Category	Size	Intensity	Total
0	10AM EDT Sun Sep 10	24.70N	81.60W	130 mph	165 mph	Category 4	20	15	35
6	4PM EDT Sun Sep 10	25.90N	81.90W	130 mph	165 mph	Category 4	20	15	35
12	10PM EDT Sun Sep 10	27.20N	82.20W	120 mph	155 mph	Category 3	20	12	32
18	4AM EDT Mon Sep 11	28.70N	82.60W	105 mph	130 mph	Category 2	14	9	23
24	10AM EDT Mon Sep 11	30.10N	83.20W	80 mph	100 mph	Category 1	7	5	12

TECO TAMPA ELECTRIC AN EMERA COMPANY

Preparation and Restoration

- Outages began on Sunday, Sept. 10, peaking after midnight. Sustained winds were 70 to 90 mph with gusts to 115 mph
- Outages peaked at 335K, with roughly 425K of 752K affected over the event
- While there were transmission and substation outages, these did not impede restoration
- 6 incidents bases were fully established on Monday and Tuesday
- Restoration began after 8 a.m. Monday, when winds conditions became safe
- No recordable injuries
- Estimated time of restoration (ETR) was established on Tuesday, based on damage assessment (Essentially all customers restored by end of day Sunday)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
Beginning of Day	9/11/2017	9/12/2017	9/13/2017	9/14/2017	9/15/2017	9/16/2017	9/17/2017	9/18/2017
Customers Out	335,000	284,000	269,000	96,000	41,000	19,000	2,000	<200

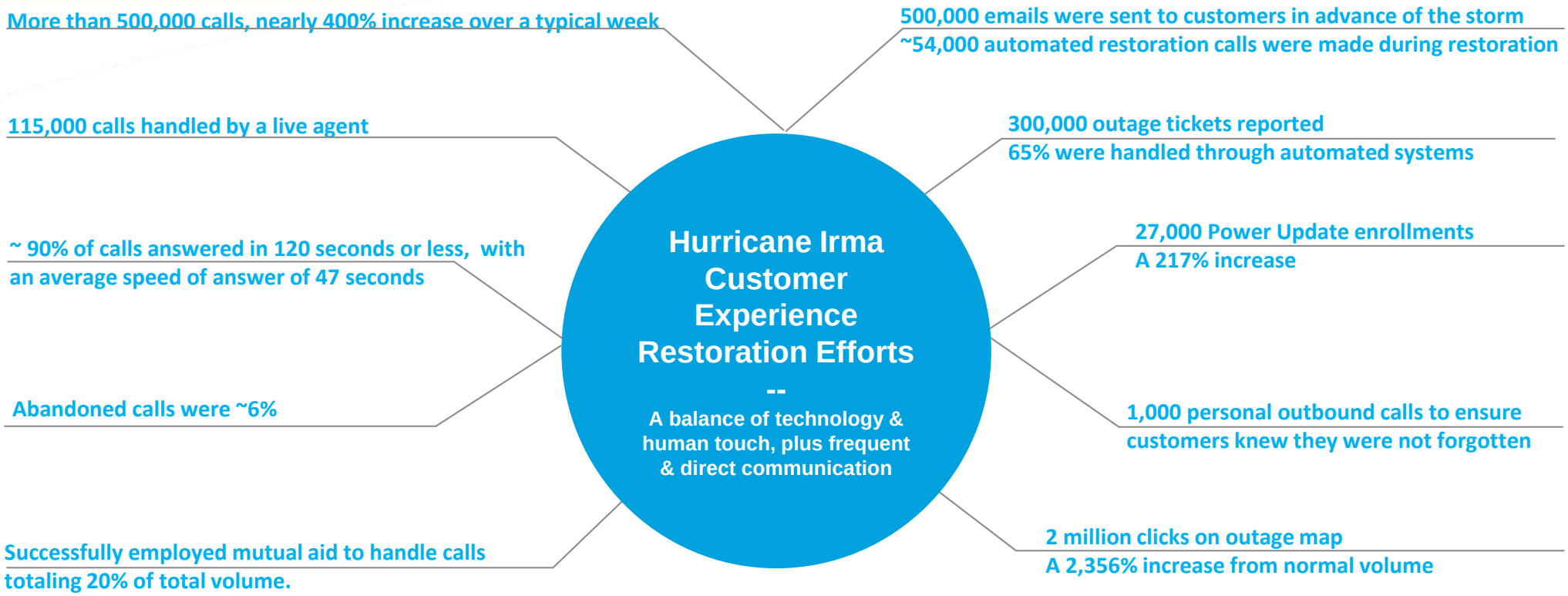
TECO TAMPA ELECTRIC AN EMERA COMPANY

Preparation and Restoration

Plant City Incident Base

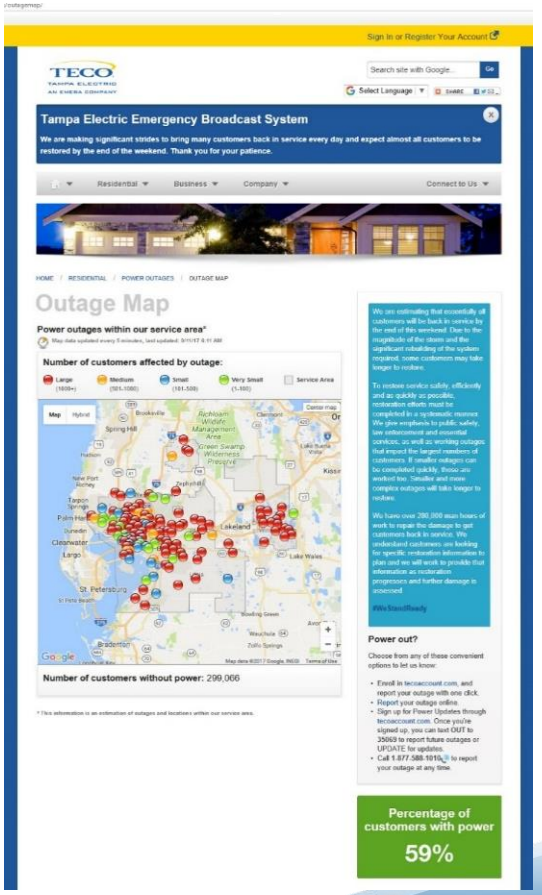
TECO TAMPA ELECTRIC AN EMERA COMPANY

Customer Experience & Communications - Stats



Customer Experience & Communications – Outage Map

- Messaging was updated through the storm, advising customers what to expect:
  - **Pre-storm** – Planning, safety and reporting an outage
  - **During storm** – Safety, we are standing by to serve, prepare for extended outages
  - **Restoration Begins** – Assessment under way, reporting an outage, plan for extended outages, working as safely and efficiently as possible around the clock.
  - **Restoration in Full Swing** – Global ETR, working around the clock to restore as safely and quickly as possible, reporting an outage
  - **Nearing completion** – If you are still out, please contact us, thank you for your patience & support, working around the clock, nobody will be forgotten
  - **Essentially complete** – Thank you for your patience and the opportunity to serve



Customer Experience & Communications

Key Messages

- Storm preparation
- Storm safety
- Line down safety
- Generator safety
- **Signup → portal**
- Update your contact info
- **Signup for PowerUpdate**
- Rumor control
  - Robbery
  - Generator shutdown
- **Photos and videos of our restoration work**
- Promote our **restoration process** video
- Thank you

Communication Channels

- Social Media: Tampa Electric, Peoples Gas, TECO Energy
- Twitter **624 posts**
  - 3,700 new followers
- Facebook: **522 posts**
- YouTube
- Power Blog
- TECO TV network
- Tampa Electric email marketing list
- Media coverage

Impact

- 3.6 million impressions on Tampa Elec Facebook
- 9,300 accounts engaged with Twitter posts
- Caught and corrected several online rumors
- Customer sentiment transformed from negative on Monday (9/11) after the storm to 75% neutral or positive by Sunday (9/17)
- Thursday Sept. 14 four media channels carried live stories from Fairgrounds incident base
- Media used outage map regularly for reporting
- Avalanche of “Thank You, TECO” as online photos and videos took effect
- Restoration process video viewed > 31,000 times

Report covers data from Sept. 6 to 17

TECO TAMPA ELECTRIC AN EMERA COMPANY

Key Successes

- Safety – no serious incidents or motor vehicle accidents
- Implemented storm model to manage over 3,400 external resources – largest ever
- No serious environmental incidents
- Critical facility work – Hospitals, nursing homes, water treatment – prioritization and triage process
- Call Center – MARS handled 20% of calls; 47 seconds was average speed of answer
- Developed global ETR after 24 hours based on damage assessment models, and Tampa Electric met that goal
- Lighting assessments and restoration (storm mode status)

Key Improvements

- Wire-down process – need to refine and add resources
- Develop plan for larger event – Category 4 or 5 w/ 7,000 resources, etc.
- Train internal and external management teams to run up to 6 additional incident bases
- Streamline outage communication technologies
- Enhance logistics capability with training and IT
- Implement technology to manage restoration data efficiently

Hurricane Preparation & Irma Response

Bryan Olnick
Vice President, Distribution Operations, Florida Power & Light Company
Member, U.S. Department of Energy's Electric Advisory Committee

CHANGING THE CURRENT.™ FPL.

Year-round planning and practice ensure our readiness

Utility industry works together to ensure resource acquisition in time of need

Regional
Mutual Assistance
Groups

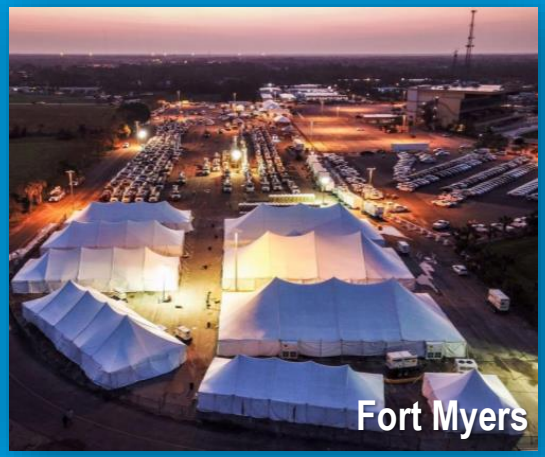
Restoring service to greatest number of customers safely and as quickly as possible

CHANGING THE CURRENT.. FPL.

Hurricane Irma was a destructive force of nature

- Impacted all 35 counties and 27,000 square miles of FPL service area
- Approximately 90% of FPL customers – 4.4+ million – were affected

Hurricane Irma: Building and operating an army of utility resources



52K LOADS OF **LAUNDRY**

1.75 Million Pounds of **ICE**

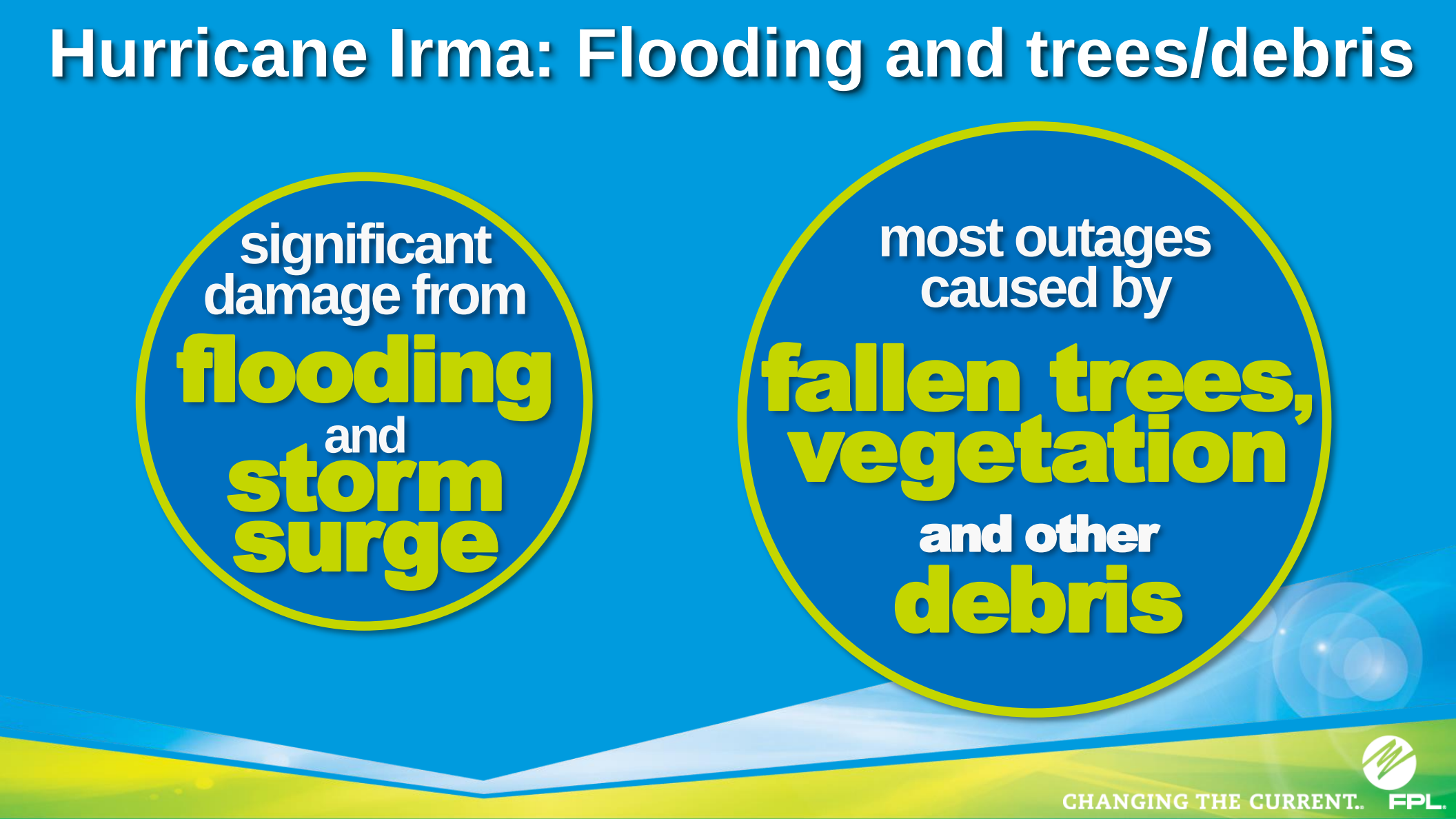
864,000 **Meals Served**

3.4 Million Bottles of **Water**

Hurricane Irma: Flooding and trees/debris

significant damage from **flooding** and **storm surge**

most outages caused by **fallen trees, vegetation** and other **debris**



Hurricane Irma: Significant flooding and storm surge


FPL

Hurricane Irma: Most outages caused by falling trees and debris


FPL

Hurricane Irma: Improved system performance and restoration

Restoration Statistic	Irma (2017)	Wilma (2005)
Days to restore	10 days	18 days
50% customers restored (days)	1 day	5 days
Poles lost	2,500* poles	12,400 poles
Days to energize substations	1 day	5 days

**Based on preliminary data*


535


INTREN


POLICE


PALM BEACH COUNTY
SHERIFF


FPL

DUKE ENERGY®

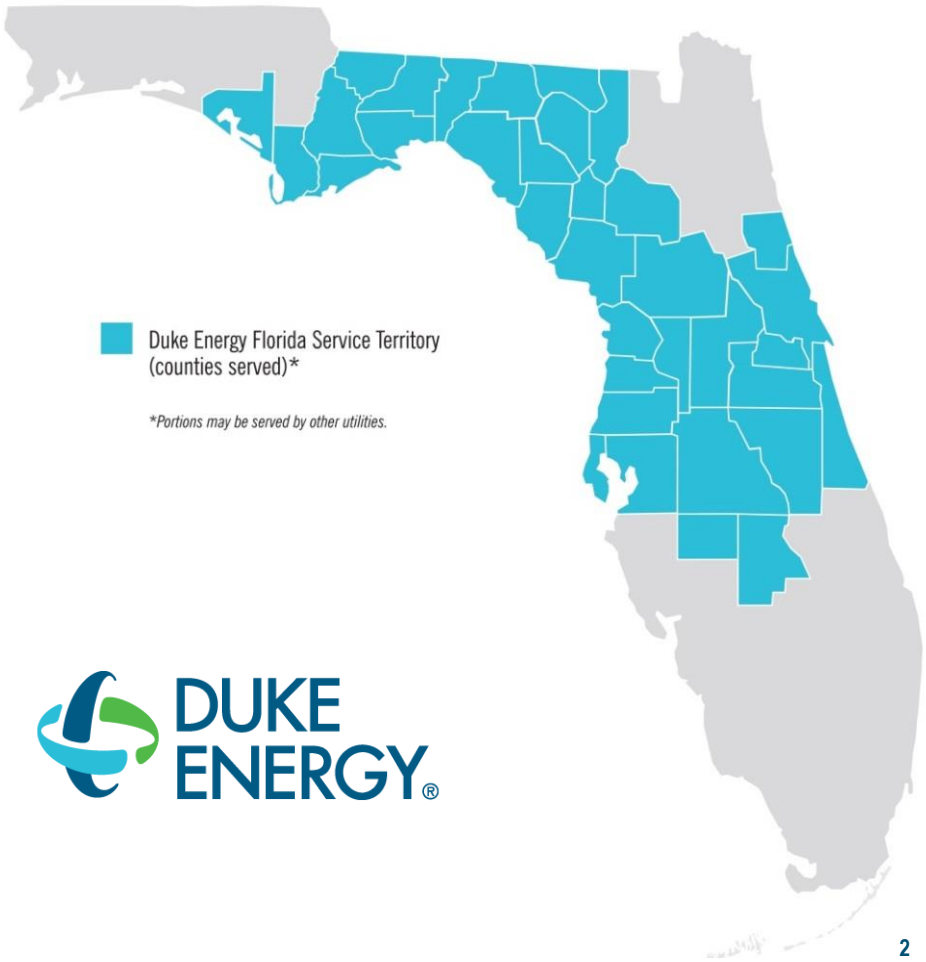
Hurricane Irma Storm Review

October 10, 2017

At Duke Energy Florida, we power more than 4 million lives

Service territory includes:

- Service to 1.8 million retail customers in 35 counties
- 13,000 square miles
- More than 5,100 miles of transmission lines and 32,000 miles of distribution lines
- Owns and operates nearly 9,500 MWs of generating capacity
  - 76.2% gas, 21% coal, 3% renewable, 0.2%oil, 2,400 MWs Purchased Power.



DUKE ENERGY®

Storm Preparedness Activities

Operational preparation is a year-round activity

- Transmission & Distribution Systems Inspected and Maintained
- Storm Organizations Drilled & Prepared
- Internal and External Resource Needs Secured
- Response Plan Tested and Continuously Improved

Coordination with County EOC Officials

- Structured Engagement and Information Sharing Before, During and After Hurricane
- Coordination with county EOC priorities
- Public Communications and Outreach

Hurricane Irma – Resources & Logistics

Resources

- 12,528 Total Resources
  - 1,553 pre-staged in Perry, Georgia
- 91 line and vegetation vendors from 25 states
- Duke Energy Carolinas and Midwest crews as well as resources from Texas, New York, Louisiana, Colorado, Illinois, Oklahoma, Minnesota, Maine and Canada
- 26 independent basecamps, parking/staging sites

Mutual Assistance

- Largest mobilization in DEF history
- Mutual Assistance Agreements, executed between DEF and other utilities, ensure that resources can be timely dispatched and fairly apportioned.
- Southeastern Electric Exchange coordinates Mutual Assistance

Hurricane Irma- Restoration

Irma's track northward up the Florida peninsula resulted in a broad swath of hurricane and tropical storm force winds.

Damage:

- 1,841 Distribution poles replaced
- 141 Transmission poles replaced
- 178 miles of wire replaced (800 additional miles spliced and repaired)
- 1,106 transformers replaced
- 71 substations out of service
- 124 transmission circuits restored

Restoration Summary			
System Totals	Customers Restored	Peak Customers Out	Outage Events*
	1,738,030	1,284,816	35,196

- 1 million customers restored in three days.
- As typical with major storms, the remaining restoration work was more time-consuming and labor-intensive (for example, pole climbing in back lot areas where trucks could not access).

* Total outage events completed to restore all customers

Irma was the first hurricane on record to impact all 35 counties served by Duke Energy Florida

Customer Communications

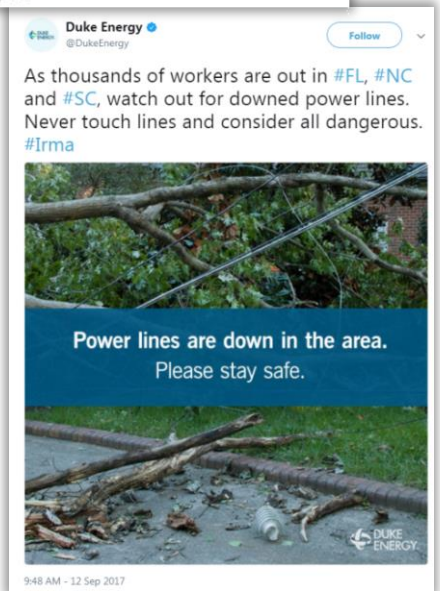
- Duke Energy State President participated in daily round table calls facilitated by Florida Governor Rick Scott
- Staffing plans supported State and County EOCs
- Customers kept informed through emails, outbound calls, print and broadcast interviews and social media
- duke-energy.com/irma website updated several times a day – received 1.2 million page views
- Despite some IT and communication challenges, over 5.7 million outbound customer messages sent over duration of event

Channel	Posts	Views	Interactions (likes, comments, shares, clicks and media views)
Facebook	54	2,518,044	1,446,583
Twitter	72	16,462,848	234,689
Total	**126**	**18.9 million**	**1.6 million**

2,132,836 Florida calls handled by Customer Care Operations during Irma

Customer Communication - Examples

- Prior to landfall, hurricane preparedness email sent to all customers with an email address
- Preparedness communication sent to 1,400 medical essential customers
- Customers kept informed throughout event
  - Outbound call campaign reached 5.7M customers
  - 18.6M views of social media content (120 original posts)
  - 2.9M residential and business customer communication emails sent
  - Conducted print and broadcast interviews providing preparation, storm status, and restoration updates as well as several national interviews with Duke Energy Florida state president
  - Produced four storm update videos and promoted via social media
  - Captured photos and videos of storm damage and restoration in the field
  - Duke Energy Florida distributed 13 news releases in both English and Spanish
  - Radio, TV and digital paid advertising in five markets throughout the event as well as on the Weather Channel
  - County and State EOC representatives processed over 4,500 priority issues in coordination with local operations centers



Storm Hardening and Grid Resilience Investments

Storm Hardening:

- Since 2004, DEF has invested more than $2 billion to harden its electrical system.
  - FPSC10-Point Maintenance Plan
  - Vegetation Management Cycles
  - Wood Pole Inspection Plan

Self Healing Technology:

- Allowing the grid to self-identify problems and react to them by isolating those areas or rerouting power.
- This technology avoided approximately 5 million outage minutes during Hurricane Irma
- Self Healing technology serves 22 percent of our customers.
- DEF plans to invest an additional $3.4 billion over the next 10 years to further modernize the grid, including transmission improvements, advanced metering infrastructure, a new customer information system, and advanced self-healing technology.

We are providing flexible options and assistance as our residential and business customers endure hardships and work to get their lives back to normal after Irma.

Customer moving due to damage from Hurricane Irma

- Waive additional deposit and reconnect fees through the end of the year
- Waive reconnect fees for customers whose service orders were delayed due to restoration
- Excess deposits will be refunded

Collections and Deposits – through the end of October

- Late payment charges and disconnects for non-payments suspended
- Flexible credit arrangements - including zero down and three months to pay
- Outbound collection calls and notices for Residential and Commercial customers suspended
- Deposit increases on existing accounts suspended

- DEF has been providing outage letters to customers to support insurance claims, including FEMA.
- Investor owned utilities, like DEF, are prohibited by federal law from accessing funds directly through FEMA.
- Given the recent hurricane activity and the level of damage, Congress is expected to consider additional relief legislation that may provide support to our customers through tax incentives, additional Community Block Development Grants funds or other means.
- We intend to closely follow these activities and continue to advocate on behalf of DEF customers.

We will pursue potential opportunities as appropriate to access federal resources to offset costs incurred during restoration efforts.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THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/10/17
Meeting Date

Bill Number (if applicable)

Topic Hurricane Irma

Amendment Barcode (if applicable)

Name Gerry Chasse

Job Title VP Electric Delivery

Address 106 E College Ave
Street

TLH FL 32301
City *State* *Zip*

Phone 850 681 6785

Email

Speaking: ☐ For ☐ Against ☒ Information

Waive Speaking: ☐ In Support ☐ Against
(The Chair will read this information into the record.)

Representing Tampa Electric Co

Appearing at request of Chair: ☒ Yes ☐ No

Lobbyist registered with Legislature: ☐ Yes ☒ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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

S-001 (10/14/14)

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/10/17
Meeting Date

Bill Number (if applicable)

Topic FPL - STORM PREPARATION & IRMA RESPONSE

Amendment Barcode (if applicable)

Name BRYAN OLNICK

Job Title V.P. DISTRIBUTION OPERATIONS - FPL

Address 700 UNIVERSE BLVD
Street

Phone 561-904-3594

JUNO BEACH, FL 33408
City *State* *Zip*

Email BRYAN.OLNICK@FPL.COM

Speaking: ☐ For ☐ Against ☐ Information

Waive Speaking: ☐ In Support ☐ Against
(The Chair will read this information into the record.)

Representing

Appearing at request of Chair: ☐ Yes ☐ No

Lobbyist registered with Legislature: ☐ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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S-001 (10/14/14)

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/10/17
Meeting Date

Bill Number (if applicable)

Topic Presentation by Investor Owned Electric Utilities - Hurricane Irma

Amendment Barcode (if applicable)

Name Jason Cutliffe

Job Title Director, Power Quality & Reliability Engineer

Address 299 1st Ave N
Street

Phone 727-820-5683

St. Petersburg FL 33701
City *State* *Zip*

Email jason.cutliffe@duke-energy.com

Speaking: ☐ For ☐ Against ☑ Information

Waive Speaking: ☐ In Support ☐ Against
(The Chair will read this information into the record.)

Representing Duke Energy

Appearing at request of Chair: ☑ Yes ☐ No

Lobbyist registered with Legislature: ☐ Yes ☑ No

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S-001 (10/14/14)

CourtSmart Tag Report

Room: SB 301 **Case No.:** **Type:**
Caption: Communications, Energy, and Public Utilities **Judge:**

Started: 10/10/2017 2:00:57 PM
Ends: 10/10/2017 3:34:47 PM Length: 01:33:51

2:01:02 PM Meeting called to order
2:01:14 PM Chair Bean opening comments
2:01:44 PM Roll call by Tamra Redig - Quorum Present
2:02:12 PM Chair Bean comments on Hurricane
2:06:24 PM Senator Broxson comments on hurricane
2:07:01 PM TAB 1 - Cayce Hinton, Director of Industry Dev. and Market Analysis, Presentation by Public Service Commission - Rules relating to electric infrastructure and solar panel interconnection
2:09:00 PM 2017 Hurricane Path
2:09:51 PM Legislative Actions as result of prior hurricanes
2:11:22 PM FPSC Actions
2:12:22 PM FPSC's Multi-faceted Approach (10 storm preparedness initiatives)
2:17:16 PM FPSC Outreach, annual hurricane preparedness meetings
2:18:23 PM Senator Bean, question to presenter and response on how it is actually working
2:19:30 PM Senator Clemens, question to presenter and response on how do we verify that the work is getting done
2:20:28 PM Senator Stargel, question to presenter and response on what is time line when data will be available
2:21:26 PM Senator Montford, question to presenter and response on penalties if they are not meeting schedule
2:23:34 PM Senator Bean, question that will come up; did Floridians get their money's worth with hardening?
2:24:26 PM Cayce Hinton resumes presentation
2:24:48 PM Restoration
2:25:28 PM Hurricane Irma stats
2:26:14 PM Next Steps
2:26:16 PM Interconnection and Net Metering
2:26:42 PM Solor Panels
2:27:24 PM Interconnection and Net Metering Rule
2:29:28 PM Can a customer design PV system to not need the grid?
2:29:44 PM Senator Clemens, question to presenter regarding cost
2:30:39 PM Senator Clemens, can you use your own solar power when power is out and cost
2:32:16 PM TAB 2 - Presentation by Investor Owned Electric Utilities - Hurricane Irma
2:32:48 PM Gerry Chasse, VP of Electric Delivery with TECO Energy (Tampa Electric)
2:35:04 PM Tampa Electric Service Area
2:35:37 PM Preparation for a storm
2:36:40 PM Strengthen our System
2:37:23 PM Prepare our people (training, mock drills etc.)
2:37:52 PM Command Centers
2:38:22 PM Restoration Response
2:39:40 PM Damage Assessment
2:39:54 PM Senator Bean, question and response from presenter on how do you decide where to go, whose first?
2:41:03 PM Senator Montford, question to presenter and response on is it an industry wide order or is it your own unique list
2:42:10 PM Presenter resumes
2:42:36 PM Preparation and Restoration
2:43:57 PM Senator Montford, question to presenter and response; you had alot of help from out of state, who determines where they go?
2:45:08 PM Customer Experience and Communication Stats
2:45:44 PM Outage Map
2:47:43 PM Have to learn from these events, are assessing.
2:48:36 PM Senator Young, question to presenter and response regarding undergrounding. Has TECO done an analysis?
2:49:55 PM Senator Stargel, question to presenter and response regarding undergrounding
2:50:47 PM Senator Clemens, question to presenter and response, how close we are to the water, how does that effect things you do
2:51:56 PM Senator Clemens, question to presenter and response regarding what is the solution (flooding)

2:53:27 PM Bryan Olnick, Vice President of Distribution Operations, Florida Power and Light
2:54:33 PM Year-round planning and practice ensure our readiness
2:55:26 PM Mutual Assistance
2:56:38 PM Hurricane Hermine regarding mutual assistance within the State of Florida
2:57:57 PM Goal restoring power
2:58:50 PM Hurricane Irma impact
3:00:37 PM Building and operating army of utility resources (Irma)
3:03:23 PM Flooding and storm surge and fallen trees/debris
3:06:12 PM Video of flooding showing conditions they have to work under
3:07:05 PM Most outages caused by falling trees and debris
3:07:46 PM Video showing impact of large trees
3:08:47 PM Success Page (Improved system performance and restoration)
3:10:10 PM Big advantage of hardening is outages restored quickly
3:11:05 PM Senator Clemens, question to presenter and response; can you explain hardening?
3:13:24 PM Senator Clemens, question and response regarding substations hardening
3:14:10 PM Senator Clemens, question and response; how is flooding effecting what you do?
3:15:37 PM Senator Montford, question to presenter and response regarding shared responsibility regarding trees
3:17:06 PM Senator Montford, question and response regarding water doing damage to underwater equipment
3:17:58 PM Senator Montford, question and response; is this water underground an issue we can anticipate?
3:18:55 PM Senator Broxson, question and response regarding shared resourses; has the Governor reached out to you regarding Puerto Rico
3:21:05 PM Presenter thanks first responders
3:21:38 PM Jason Cutliffe, Director of Power Quality and Reliability Engineering with Duke Energy of Florida
3:22:18 PM Service Territory
3:22:50 PM Storm Preparedness Activities
3:23:30 PM Hurricane Irma - Resources and Logistics
3:23:54 PM Resoures Largest in Duke Energy History
3:25:13 PM Restoration, first storm that effected all of their counties
3:27:24 PM Customer Communications
3:28:29 PM Communication channels examples
3:29:24 PM Storm Hardening and Grid Resilience Investments
3:30:51 PM Working with customers
3:32:28 PM Filing insurance claims
3:33:02 PM Senator Bean comment
3:33:41 PM Senator Bean comment on upcoming meetings
3:34:38 PM Vice Chair Montford moves we adjourn