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December 15, 2017

State of Florida, Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

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Re: SECO Energy Response – HURRICANE HERMINE
Docket No. 20170215-EU - Review of electric utility hurricane preparedness
and restoration actions

The attached report details SECO Energy's preparation and restoration activities following Hurricane Hermine (9/1/16-9/2/16).

Due to the resources required to gather detailed data for each of the hurricanes impacting SECO's service territory in 2016-2017, the following will be provided by the dates listed below:

- SECO Energy response to Hurricane Matthew – February 1, 2018
- SECO Energy response to Hurricane Irma – March 1, 2018

If you have questions or require further clarification on any of the responses in the report, please contact Jennifer Story (352-569-9641) or Tracey Johnston (352-569-9858).

Thank you,

A handwritten signature in black ink that appears to read "Jennifer Story".

Jennifer Story, System Planning Supervisor

A handwritten signature in black ink that appears to read "Tracey Johnston".

Tracey Johnston, Reliability Analyst

XC: James P. Duncan, SECO Energy
John L. LaSelva, SECO Energy
R. Ben Brickhouse, SECO Energy
Michel L. Bjorklund, FECA
Michelle L. Hershel, FECA

Staging for Utility Personnel and Mutual Aid

1. Please describe the pre-storm coordination process for Hurricanes Hermine, Matthew, Irma, Maria, and Nate. The description should include:
 - a. Dates and topics of internal meetings held after each storm was named.

SECO Response (Hermine)

Meeting Agenda

Tropical Depression #9 – Hermine: 8/31/16 9:00 am

Pre-emergency meeting checklist:

Weather Update:

Restoration:

- Expected to be Level 2
- SECO coverage
- Foreign assistance
- Foreign resources dispersion
- Logistics (housing, meals, etc.)

Crew Movement:

- OH crews estimated arrival
- Tree crews estimated arrival

Vice President of Human Resources & Corporate Services:

- Alert Status
- Revise Call Center schedule
- Front Counter support post-storm
- Hotels:
 - Vice President approval for employee use – Hotels are for foreign crew use
 - Finalize lodging
- Transportation:
 - Buses
 - Fuel
 - Bar code foreign crews
 - Front end loader
- Food
- Staging Areas:
 - Eustis
 - Ocala
 - Groveland
 - Sumterville
- Facilities Maintenance:
 - Expanded janitorial service
 - 24/7 A/C for all buildings including headquarters

- Safety:
 - Security at all locations 24/7
 - Revise/eliminate badge time restrictions
 - One person at each location for safety briefings
 - Packets for safety briefings

Chief Financial Officer:

- Increase petty cash fund
- Stop disconnects
- County work orders
- “P” cards activated/increased
- “P” cards for crew food, supplies, etc but must be monitored for use – limits
- Warehouse:
 - Poles
 - Transmission poles
 - Material to divisions
- IT staffing

Vice President of Corporate Communications & Energy Services:

- Press releases pre-storm
 - Generator safety
 - Restoration priorities
 - SECO “Storm Center”
 - Continue to stand-by and ready to assist
- EOC staffing
 - EOCs scheduled opening
 - Shelters
 - Marion:
 - Sumter:
 - Lake:
 - Citrus:
 - Set contacts and schedules
- Social Media updates – Facebook/Twitter

Vice President of Engineering:

- Establish 24/7 coverage
- QEI to SECO
- Package generation ready
- Maps prepared in storm center and divisions
- Project Engineers assigned to divisions
 - Eustis/Groveland:
 - Ocala:
 - Sumterville:

Vice President of Operations:

- Obtain personnel listing by classification and location
- Storm rooms prepared
- Prepare for staging and foreign crew assistance

- Feeder priorities sent to locations
- Plans reviewed locally
- Volunteers to ride out storm
- Status of substations
- Mobiles
- 12 hour schedule implemented for System Operations

Vice President of Operations and Vice President of Engineering:

- Set meeting schedules:
 - Contact FECA
 - Secure manpower
 - Trees
 - Line crews
 - Storm room set up
- b. Dates and topics of external communication pertaining to mutual aid held after each storm was named.

SECO Response (Hermine)

- Conference call between Managers and FECA on September 1, 2016.
 - Conference call between FECA and other Statewides to discuss mutual aid: September 1 & 2 2016.
 - Request restoration assistance: August 30, 2016
 - Wolf Tree Inc. (tree removal contractor)
 - Sumter Utilities (overhead line contractor)
 - Team Fishel (overhead line contractor)
- c. Date mutual aid was requested and nature of request.

SECO Response (Hermine)

Tuesday, August 30, 2016 via phone conference and receipt/approval of crew and equipment rosters.

2. Please provide a detailed description of the utility's allocation of storm duties for all personnel. This should include a description of each function and the number of utility personnel assigned.

SECO Response (Hermine)

(next 4 pages)

Storm Function	Description	Personnel Assigned
Communications	Handles all contact with the media. Provides information to the Emergency Operations Center (EOC). Determines methods to update employees on status of damage and restoration efforts, including time frames, methods and responsibilities. Coordinates phone answering strategies for headquarters, division offices and scheduling. Provides a consistent means to keep large power consumers apprised as to damage and restoration efforts. Coordinates and communicates fuel requirements for SECO generators and consumers' generators. Defines means for acquisition of cellular phones, checking radio systems prior to storm, contingency plans for lost microwave systems. Develops methods to check reports from police and EOC's in coordination with other damage assessments.	53
Emergency Restoration Command/Management Team and Lead Coordinator	Determines need for outside crew assistance, contacts, tracking, arrival times and manpower requirements. Determines the means to provide food for inside and field employees, delivery schedules, contingencies for long term/wide spread outages, etc. Establishes the means and alternatives to acquire lodging for both foreign assistance and SECO personnel, if necessary. Details means to secure transportation for foreign personnel, including busing to and from staging areas to housing and meal areas, if necessary. Ensures adequate funds available. Obtains names of all SECO personnel in the field, their location and means of communication. Ensures that all employees needed for emergency restoration have a point of contact for storm issues that occur on their personal property and that emergency repairs can be coordinated for their families. Provides security for Corporate Headquarters, Division offices and staging areas. Secures sites for staging crews and materials. Details methods of acquiring materials, sources, delivery, accounting and tracking. Defines staffing of System Control Command Center, hours of operation, training requirements, communications system support and location of operation. Develops a methodology for restoring electrical service following storms or other emergencies. Determines overall damage. Identifies and reports specific damage on main line feeders so that crews may be sent to make repairs and restore service. Restores power in the field after the storm/emergency passes. Provides a method to quantify damage in terms of man-hours, track outage status, predict restoration status, define and update priorities. Defines means to assign work, coordinate restoration efforts, switching, materials, and guides.	6
Employee Coordination	Organizes and tracks restoration work in the field after the storm/emergency passes.	6
Facilities Management	Defines means for acquisition of cellular phones, checking radio systems prior to storm, contingency plans for lost microwave systems.	46

	Handles storm contract acquisition and supply chain services. Determines need for outside crew assistance, contacts, tracking, arrival times and manpower requirements. Completes building preparation prior to storm. Conducts preliminary inspection for damage after storm. Coordinates all fuel requirements, including tankers, gas credit cards or open accounts, hours of service, etc. as well as fuel requirements for SECO generators and consumers' generators. Defines means to assign work, coordinate restoration efforts, switching, materials, and guides. Coordinates housing of foreign crews. Defines staffing of System Control Command Center, hours of operation, training requirements, communications system support and location of operation. Establishes means and alternatives to acquire lodging for both foreign assistance and SECO personnel, if necessary. Details means to secure transportation for foreign personnel, including busing to and from staging areas to housing, and meal areas, if necessary. Details methods of acquiring materials, sources, delivery, accounting and tracking. Determines the means to provide food for inside and field employees, delivery schedules, contingency for long term/wide spread outages, etc. Develops methods to check reports from police and EOC's are checked in coordination with other damage assessments. Handles coordination of laundry services. Coordinates phone answering strategies for headquarters and division offices and scheduling. Obtains names of all SECO personnel in the field and their location and means of communication. Provides a consistent means to keep large power consumers apprised as to damage and restoration efforts. Provides security for Corporate Headquarters, Division offices and staging areas. Secures sites for staging crews and materials. Provides a method to quantify damage in terms of man-hours, track outage status, predict restoration status, define and update priorities. Ensures that all employees needed for emergency restoration have a point of contact for storm issues that occur on their personal property and that emergency repairs can be coordinated for their families. Identifies and reports specific damage on main line feeders so that crews may be sent to make repairs and restore service. Ensures adequate funds available. Restores power in the field after the storm/emergency passes. Tracks all costs of storm restoration for FEMA.	
Fleet Management	Completes building preparation prior to storm. Conducts preliminary inspection for damage after storm. Details methods of acquiring materials, sources, delivery, accounting and tracking. Determines criteria for SECO repairs versus outside repairs, establishes approved vendors, contacts and phone numbers. Provides for the acquisition of both small and large tools, rental of special heavy equipment, contacts, payment arrangements and availability. Ensures that all employees needed for emergency restoration have a point of contact for storm	11

	issues that occur on their personal property and that emergency repairs can be coordinated for their families. Ensures adequate funds available.	
Restoration	Handles storm contract acquisition and supply chain services. Determines need for outside crew assistance, contacts, tracking, arrival times and manpower requirements. Completes building preparation prior to storm. Conducts preliminary inspection for damage after storm. Coordinates all fuel requirements, including tankers, gas credit cards or open accounts, hours of service, etc. as well as fuel requirements for SECO generators and consumers' generators. Defines means to assign work, coordinate restoration efforts, switching, materials, and guides. Coordinates housing of foreign crews. Defines staffing of System Control Command Center, hours of operation, training requirements, communications system support and location of operation. Establishes the means and alternatives to acquire lodging for both foreign assistance and SECO personnel, if necessary. Details means to secure transportation for foreign personnel, including busing to and from staging areas to housing and meal areas, if necessary. Details methods of acquiring materials, sources, delivery, accounting and tracking. Determines the means to provide food for inside and field employees, delivery schedules, contingencies for long term/wide spread outages, etc. Develops methods to check reports from police and EOC's in coordination with other damage assessments. Obtains names of all SECO personnel in the field and their location and means of communication. Provides security for Corporate Headquarters, Division offices and staging areas. Secures sites for staging crews and materials. Provides a method to quantify damage in terms of man-hours, track outage status, predict restoration status, define and update priorities. Ensures that all employees needed for emergency restoration have a point of contact for storm issues that occur on their personal property and that emergency repairs can be coordinated for their families. Identifies and reports specific damage on main line feeders so that crews may be sent to make repairs and restore service. Determines overall damage. Develops a methodology for restoring electrical service following storms or other emergencies. Ensures adequate funds available. Restores power in the field after the storm/emergency passes.	173
Security	Provides security for Corporate Headquarters, Division offices and staging areas. Secures sites for staging crews and materials.	2
Warehouse & Material	Handles storm contract acquisition and supply chain services. Determines need for outside crew assistance, contacts, tracking, arrival times, and manpower requirements. Provides water and ice for food storage, drinking and hygiene. Coordinates all fuel requirements, including tankers, gas credit cards or open accounts, hours of service, etc. as well as fuel requirements for SECO generators and consumers' generators. Details means to secure transportation for foreign personnel,	12

	including busing to and from staging areas to housing, and meal areas, if necessary. Details methods of acquiring materials, sources, delivery, accounting and tracking. Provides security for Corporate Headquarters, Division offices and staging areas. Secures sites for staging crews and materials. Provides for the acquisition of both small and large tools, rental of special heavy equipment, contacts, payment arrangements and availability.	
Grand Total		309

3. When did the costs for Hurricanes Hermine, Matthew, Irma, Maria, and Nate begin to accrue for receiving mutual aid?

SECO Response (Hermine)

Wednesday, August 31, 2016

Damage Assessment Process

4. Please provide a detailed overview of the initial damage assessment process for Hurricanes Hermine, Matthew, Irma, Maria, and Nate, including the number of utility employees or contractors involved, their duties, and how initial damage assessment is disseminated within the utility to assist in restoration activities. Additionally, please provide photographs or other visual media that memorializes storm damage, which was documented during the initial damage assessment process.

SECO Response (Hermine)

The initial damage assessment process for Hurricane Hermine was managed through SECO Energy's PowerOn outage management system. Outage information was submitted through PowerOn to SECO's first responders who were utilized to investigate, repair and restore power. If the first responder was unable to restore power themselves, the outage information, including materials required, was referred to a crew to repair. The crew supervisors directed the crews where to restore to get the most number of customers back on in the shortest amount of time. The distribution superintendents were responsible for maintaining communication between their area, their assigned crews, and the Command Center. Twice a day a report was given to the Command Center as to which areas had been restored and which areas were still requiring restoration in a prioritized manner.

The total number of SECO Energy employees involved in the initial damage assessment and storm restoration for Hurricane Hermine were as follows: 92 Transmission and Distribution Line Technicians, 19 Managers/Supervisors, 20 Engineering/Operations

employees available to serve as guides (not required), 6 employees providing clerical support, and 11 System Control coordinators gathering and disseminating all of the damage information through SECO Energy's PowerOn outage management system. A total of 14 contract personnel were also available to serve as guides and 242 contract line and tree crew personnel were on-site and available to assist with storm restoration.





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5. Please provide a description of how damage assessment data is updated and communicated internally.

SECO Response (Hermine)

Damage assessment data for Hurricane Hermine was updated and communicated internally through SECO Energy's PowerOn outage management system.

Restoration Workload

6. Please provide a detailed description of how the utility determines when and where to start restoration efforts.

SECO Response (Hermine)

SECO Energy determines when to start restoration efforts based on when it is safe and sustained winds subside below 35-mph. SECO Energy's restoration efforts start with transmission outages, followed by substation outages, and then feeder outages. Feeders with hospitals, shelters, schools, and government agencies are the highest priority. Large commercial accounts come next so that the public has access to food, water, and supplies. The feeders with the greatest number of member accounts on them are the next priority. This process provides the quickest relief to the most people. Feeders with smaller member numbers are next, followed by members on laterals. Individual home outages are necessarily last on the list.

7. For Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please complete the following table on workload priority:

SECO Response (Hermine)

Personnel Responsible for Hermine Restoration Workload Assignments		
Title	Years of Experience	Number of Crews Managed
Superintendent - Eustis	37	21
Superintendent - Groveland	28	11
Superintendent - Ocala	28	45
Superintendent - Sumterville	35	60

8. Please provide a description of how restoration workload adjusts based on work completed and updates to damage assessments.

SECO Response (Hermine)

Following the initial survey, SECO Energy's Lead Coordinators will decide the crew assignments for the initial restoration effort following the procedures outlined in #6. Twice daily, Distribution Superintendents provide a report to the SECO Command Center/Lead Coordinators of areas restored and areas to be restored in a prioritized manner.

Distribution Superintendents formulate and propose a plan for continued restoration by addressing the following:

- Evaluate emergency situations and plan an appropriate response
- Determine number of crews, make up, and type of equipment needed
- Determine use of existing contract line crews, if assistance is needed
- Determine use of existing contract right-of-way crews, if assistance is needed
- Review crew assignments, working hours, meal times, etc.

The Lead Coordinator makes the final decision concerning work hours and crew movements for restoration.

9. If applicable, please describe how mutual aid was determined to be no longer needed following Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

SECO Response (Hermine)

SECO Energy was considered fully restored from Hurricane Hermine when the final interrupted service was re-energized on September 2, 2016 at 11:40 PM. The release of all foreign crews occurred on September 3, 2016 at 7:30 AM.

Staffing Considerations

10. Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please respond to the following, please provide the following:
 - a. Days of lodging provided for Utility personnel (Person-Days)
 - b. Days of lodging provided for mutual aid partners (Person-Days)
 - c. Number of meals provided for Utility personnel
 - d. Number of meals provided for mutual aid partners
 - e. Number of Utility personnel injuries
 - f. Number of mutual aid partner injuries
 - g. Number of Utility personnel fatalities
 - h. Number of mutual aid partner fatalities

Please note any delays in restoration associated with items e-h above.

SECO Response (Hermine)

a	Lodging - 2 cooperative employees / 2 days
b	Lodging - 51 mutual aid partners / 2 days
c	Meals - 1,752 total meals served (cooperative & mutual aid)
d	See (c) above
e	Cooperative employee injuries - 0
f	Mutual aid partner injuries - 0
g	Cooperative fatalities - 0
h	Mutual aid fatalities - 0
	SECO experienced no delays in restoration associated with the items above.

11. Please provide a detailed description of when your Utility was considered fully restored from each named storm event.

SECO Response (Hermine)

SECO Energy was considered fully restored from Hurricane Hermine when the final interrupted service was re-energized on September 2, 2016 at 11:40 PM.

Customer Communication

12. Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please respond to the following for each county in the Utility's service territory affected by the storms.
- Total number of customer accounts
 - Peak number of outages

SECO Response (Hermine)

County	Total number of customer accounts	Peak number of outages Hurricane Hermine
Citrus	15,244	41
Hernando	183	1
Lake	62,215	43
Levy	1,574	16
Marion	56,071	135
Pasco	36	1
Sumter	59,455	89
Total	194,778	326

13. Please provide how call center customer service representatives were utilized before, during and after Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

SECO Response (Hermine)

SECO Energy's call center answered phone calls regarding member outages and inquiries on Thursday, September 1, 2016 and Friday, September 2, 2016 in response to Hurricane Hermine.

14. Please provide the number of customer service representatives the Utility had during Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
 - a. Were there additional personal deployed or 3rd party entities utilized to help address customer contacts during each named storm event? If so, how many?

SECO Response (Hermine)

SECO Energy had a total of 37 Member Support Associates working during Hurricane Hermine. There were five (5) SECO Energy Corporate Communications employees addressing customer contacts via multiple social media networks and platforms during Hurricane Hermine. Additionally, SECO Energy had six (6) Energy Services employees prepared to work directly with Emergency Operations Centers to assist with customer contacts during Hurricane Hermine.

15. Please provide the number of customer contacts received by the customer call center(s) during Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

SECO Response (Hermine)

SECO Energy's call center received 3,670 customer contacts during Hurricane Hermine.

16. Please provide all methods (call centers, email, Utility website, etc.) utilized to submit and collect customer contacts before, during, and after Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

SECO Response (Hermine)

During major storms, SECO Energy communicates with members through media releases, in-person contacts, phone calls, emails, the secoenergy.com website, a proactive, interactive restoration plan map, social media (via Facebook & Twitter) and Emergency Operation Centers (EOC) where SECO staffs personnel on a 24/7 basis when fully activated. SECO Energy's Corporate Communications team also communicates daily with state and federal legislators about storm preparation and restoration status. SECO was prepared to staff EOCs during Hurricane Hermine but none were fully activated.

17. Please describe the step by step process(es) by which customer contacts are addressed before, during, and after a named storm event. If different during each timeframe, please describe the step by step process during each separately.
- a. Did the Utility identify any delays in restoration as a result of addressing customer contacts related to Hurricanes Hermine, Matthew, Irma, Maria, and Nate? If so, please provide detail.

SECO Response (Hermine)

SECO Energy's customer service team answers member questions and, if necessary, creates outage tickets using SECO's PowerOn outage management system.

SECO Energy did not identify any delays in restoration as a result of addressing customer contacts related to Hurricane Hermine.

18. Please provide whether or not customer contacts are categorized (by concern, complaint, information request, etc.) If so, how are they categorized? If not, why not?

SECO Response (Hermine)

During Hurricane Hermine restoration, member contacts related to outages were entered into SECO Energy's PowerOn outage management system.

Outage ticket call type options are; Power Out, Partial Power Out, Voltage or Flicker Problems, Wire Down – House Fire – Emergency and Pole, Cabinet or other Facility. Additional comments fields are also utilized, as needed.

19. Please provide a detailed description of how customer service representatives are informed of restoration progress.
- a. Is there a script provided to each customer service representative to relay restoration progress to customers? If so, what is the process by which the script is created? N/A

SECO Response (Hermine)

Employee communications and status updates on restoration progress are communicated to all SECO Energy employees twice daily.

SECO Energy employees can also access SECO Energy's website and social media pages for other news releases and updates that are posted throughout the restoration process.

20. Please describe the process the Utility uses to notify customers of approximate restoration times. The response should include at a minimum:
- How restoration time estimates were determined.
 - How customers are notified.
 - How restoration time estimates are updated.
 - How restoration time estimates are disseminated internally, to the county and state Emergency Operations Centers, and to the public.

SECO Response (Hermine)

SECO had a limited need to address restoration time estimates system-wide during Hurricane Hermine. SECO's longest outage was 13.8 hours for 13 members and the System Average Interruption Duration Index (SAIDI) was 11.84 minutes. SECO was prepared to staff EOCs during Hurricane Hermine but none were fully activated.

Material Considerations

21. Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please provide a description of how vehicle fuel was procured for Utility personnel and mutual aid partners. As part of the response, please answer the following:
- Whether or not the Utility has fuel stored for these types of events
 - Whether or not fuel shortage was an issue during these events
 - Whether or not there were any delays due to fuel shortage
 - Whether or not there were enough vehicles available during these events/any issues mobilizing crews

SECO Response (Hermine)

a	SECO utilized normal contracted fuel suppliers that fueled generators prior to the storm. A combination of contracted mobile fueling and on-site fueling at SECO owned pumps were used during restoration activities.
b	SECO did not experience fuel shortages during Hermine.
c	SECO did not experience delays due to fuel shortages during Hermine.
d	SECO had enough fleet vehicles available for restoration and did not experience any issues mobilizing crews during Hermine.

22. Please detail any complications or delays such as shortage or delayed delivery of materials for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

SECO Response (Hermine)

SECO did not experience any delays in restoration due to a shortage or delayed delivery of materials during Hurricane Hermine.

Restoration Process

23. Please provide a summary timeline of the utility's restoration process for each hurricane: Hermine, Matthew, Irma, Maria, and Nate. The timeline should include, but not limited to, staging, stand-down, deployment, re-deployment, allocation, mutual aid, release of mutual aid, and date last outage was restored.

SECO Response (Hermine)

SECO Energy's Restoration Process Summary Timeline for Hurricane Hermine

Date	Time	Summary Timeline
08/30/16	14:00	SECO Energy entered Pre-Alert Status
08/30/16	17:00	Mutual Aid - local subcontractor and foreign assistance requested
08/30/16	17:00	Hurricane Watch issued
08/31/16	05:00	Tropical Storm Warning issued
08/31/16	08:30	Governor declared State of Emergency
08/31/16	09:00	SECO Energy Pre-Emergency Meeting
08/31/16	14:00	Tropical Depression #9 strengthened into Tropical Storm Hermine
08/31/16	14:00	SECO Energy entered Full-Alert Status
08/31/16	23:00	Hurricane Warning issued
09/01/16	14:00	Staging of foreign crews
09/01/16	14:55	Tropical Storm strengthened into Hurricane
09/01/16	20:00	Tornadoes reported in Webster, FL
09/02/16	01:30	Eye of Hurricane made landfall
09/02/16	02:00	Stand-down
09/02/16	03:00	Peak outages occurred
09/02/16	03:30	Allocation of first responders due to six (6) feeder outages
09/02/16	05:00	Hurricane and Tropical Storm Warnings discontinued
09/02/16	05:30	Deployment of all crews
09/02/16	17:00	Essentially restored (99.3% of all members)
09/02/16	20:00	SECO Energy's Full Alert Status ended
09/02/16	23:40	Last outage restored
09/03/16	07:30	Release of Mutual Aid

24. Please explain how the Utility validates adherences and departures from its storm preparation plan.
- If the Utility does not assess departures from its storm plan, explain why not.
 - If the Utility does not document or otherwise memorialize departures from its storm plan, explain why not.
 - Have departures from the Utility's storm preparation plan resulted in modification of the storm preparation plan during 2015 through 2017? If so, please explain how with examples.

SECO Response (Hermine) – please see #25

25. Please explain how the Utility validates adherences and departures from its storm restoration plan.
- If the Utility does not assess departures from its storm restoration plan, explain why not.
 - If the Utility does not document or otherwise memorialize departures from its restoration storm plan, explain why not.
 - Have departures from the Utility's storm restoration plan resulted in modification of the storm restoration plan during 2015 through 2017? If so, please explain how with examples.

SECO Response (Hermine)

SECO Energy's Emergency Preparedness Plan (EPP) provides a method for SECO employees to prepare and respond to emergencies. SECO Energy did not deviate from its emergency plan during Hurricane Hermine restoration. However, as soon as practical following post-storm restoration activates, meetings are held to discuss lessons learned and recommendations for improvement. No major recommendations for improvement were identified following Hurricane Hermine restoration.

Outages

26. Please identify all counties, including reporting regions/division for each county if applicable, that were impacted (had outages or damage) due to Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

SECO Response (Hermine)

The following counties were impacted due to Hurricane Hermine: Citrus, Hernando, Lake, Levy, Marion, Pasco and Sumter.

27. Please complete the table below summarizing the wind speed and flooding impacts by county in the utility's service area. If the requested information is not available by county, please provide the information on a system basis. Please provide this information for Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

SECO Response (Hermine)

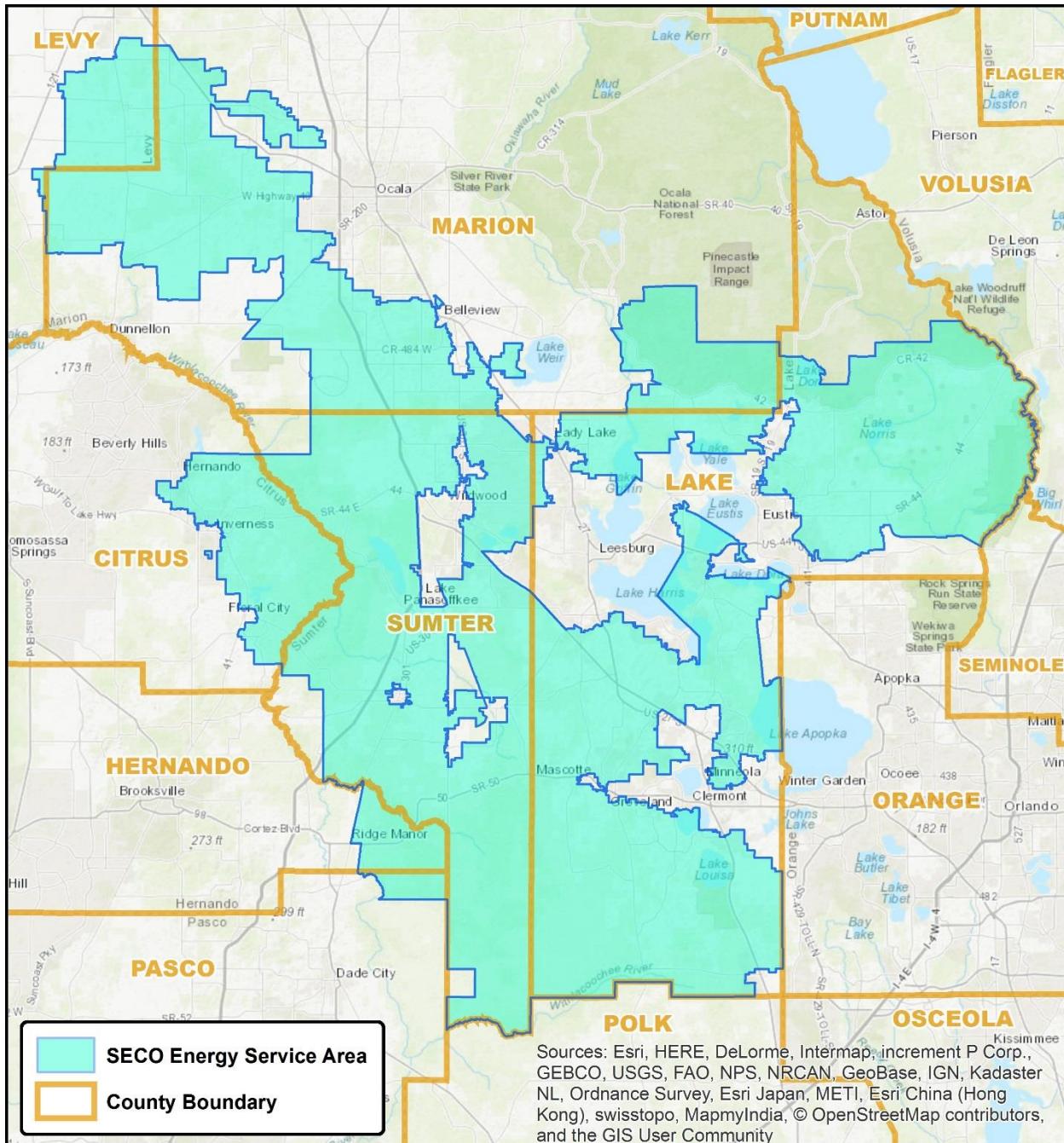
SECO has no weather monitoring equipment installed.

Weather Impact - Hermine				
County	Maximum Sustained Winds (MPH) – <i>ground winds measured at substation</i>	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)

Hardened and Non-Hardened Structures

28. Please provide a county map or graphic indicating the geographic locations where the Utility's infrastructure was storm hardened after 2006. For purposes of this question, do not include vegetation management.

SECO Response (Hermine)



29. Please complete the table below summarizing hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

SECO Response (Hermine)

Hardened Facilities		
Hurricane	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>		
Structures	0	0
Substations	0	0
Total	0	0
<i>Distribution</i>		
Poles	2	10
Substation	0	0
Feeder OH	8	0
Feeder UG	0	0
Feeder Combined	10	0
Lateral OH	205	0
Lateral UG	7	0
Lateral Combined	212	0
Total	222	10
<i>Service</i>		
Service OH	103	6
Service UG	3	0
Service Combined	106	6
Total	328	16

30. Please complete the table below summarizing non-hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

SECO Response (Hermine)

Non-Hardened Facilities		
Hurricane	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>	0	0
Structures	0	0
Substations	0	0
Total	0	0
<i>Distribution</i>		
Poles	0	0
Substation	0	0
Feeder OH	0	0
Feeder UG	0	0
Feeder Combined	0	0
Lateral OH	0	0
Lateral UG	0	0
Lateral Combined	0	0
Total	0	0
<i>Service</i>		
Service OH	0	0
Service UG	0	0
Service Combined	0	0
Total	0	0

31. For Hurricanes Matthew, Hermine, Irma, Maria, and Nate, please provide a ranking of the five highest volume of outage causation that impacted the Utility's service area.

SECO Response (Hermine)

The five highest volume outage causes that impacted SECO Energy's service area during Hurricane Hermine were as follows:

- 1) Vegetation
- 2) Unknown
- 3) Lightning
- 4) Overhead conductor
- 5) Equipment failure

32. For Hurricanes Matthew, Hermine, Irma, Maria, and Nate, please provide a ranking of the top five drivers that protracted service restoration time.

SECO Response (Hermine)

The top five drivers that protracted service restoration time during Hurricane Hermine were as follows:

- 1) Sustained winds above 35-mph
- 2) Toppled trees
- 3) Downed power lines
- 4) Broken poles
- 5) Debris blocking roadways

33. If applicable, please describe any damage prevented by flood monitors during Hurricanes Matthew, Hermine, Irma, Maria, and Nate. *N/A*
34. How many outages were avoided by automated feeder switches during Hurricanes Matthew, Hermine, Irma, Maria, and Nate? Please explain how the data for each event was collected.

SECO Response (Hermine)

Zero (0) outages occurred on feeders with distribution automation equipment during Hurricane Hermine.

Critical Infrastructure Restoration

35. Please complete the table below for all critical infrastructure facilities (CIFs), by location (city/county) and facility type, which lost power, the restoration time for the CIFs and the cause of the outage (such as wind, storm-surge, flooding, debris, etc.) and facilities structure type that required replacement and/or repair. Please provide this information for Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

SECO Response (Hermine)

The locations listed on the following page were not fully activated EOCs during Hurricane Hermine.

Hurricane (Name) – CIF						
CIF Name/Type (i.e. Hospital)	County/Location	Restoration Time	Outage Cause	Number of Facilities Requiring		
					Repair	Replace
				<i>Transmission</i>		
				Structures		
				Substations		
				Total		
				<i>Distribution</i>		
				Poles		
				Substation		
Liberty Middle School and Hammett Bowen Elementary School	Marion County/Ocala	67 minutes	Vegetation	Feeder OH	1	
				Feeder UG		
				Feeder Combined	1	
				Lateral OH		
				Lateral UG		
				Lateral Combined		
				Total	1	
				<i>Service</i>		
				Service OH		
				Service UG		
				Service Combined		
				Total	1	

Underground Facilities

36. Please provide an assessment of the performance of underground facilities during Hurricanes Matthew, Hermine, Irma, Maria, and Nate. As part of this assessment please summarize the number of underground facilities that required repair or replacement for each event.

SECO Response (Hermine)

A review of the outage tickets for Hurricane Hermine indicated that underground facilities performed better than overhead facilities. Approximately three (3) percent of the outages that occurred during Hurricane Hermine impacted SECO Energy's underground facilities (overhead/underground hybrids, in most cases). The number of underground facilities that required repair or replacement for Hurricane Hermine were as follows: five (5) underground riser poles, two (2) underground fuse cabinets, two (2) underground transformers and one (1) elbow.

37. Please provide a discussion what programs/tariffs the utility has in place to promote
- Undergrounding of new construction (e.g., subdivisions)
 - Conversion of overhead to underground

SECO Response (Hermine)

Counties and municipalities served by SECO Energy now require high-density subdivisions to be served by underground facilities. SECO actively monitors outages/causes throughout normal operations and following storm damage to determine other locations that would be better served with underground facilities.

The table below indicates the miles of line SECO has added from 2012-2017.

Overhead line	33 miles	5.4%
Underground line	579 miles	94.6%
Total added	612 miles	