



FILED 12/15/2017
DOCUMENT NO. 10663-2017
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Lee County Electric Cooperative, Inc.
Post Office Box 3455
North Fort Myers, FL 33918-3455
(239) 995-2121 • FAX (239) 995-7904
www.lcec.net

December 15, 2017

Mr. Wesley Taylor, Attorney
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

SUBJECT: Docket No. 20170215-EU – Review of Electric Utility Hurricane Preparedness and Restoration Actions.

Dear Mr. Taylor:

Please find attached the Lee County Electric Cooperative, Inc., (LCEC) report for the Review of Electric Utility Hurricane Preparedness and Restoration Actions, Docket No. 20170215-EU.

If you have any questions regarding this submission, please feel free to contact me at (239) 656-2399 or email me at Denise.Vidal@lcec.net.

Sincerely,

s/ Denise Vidal

Denise Vidal
Director, Finance & Accounting/CFO

Attachment

cc: Dennie Hamilton, EVP & CEO, LCEC

**Lee County Electric Cooperative, Incorporated, LCEC
Report to the Florida Public Service Commission for
Docket No. 20170215-EU**

Review of Electric Utility Hurricane Preparedness and Restoration Actions

Index

Staging for Utility Personnel and Mutual Aid	
1.	1
1. a.	1
1. b.	7
1. c.	12
2.	12
3.	15
Damage Assessment Process	
4.	15
5.	30
Restoration Workload	
6.	30
7.	31
8.	31
9.	32
Staffing Considerations	
10. a.	32
10. b.	32
10. c.	32
10. d.	32
10. e.	32
10. f.	32
10. g.	32
10. h.	33
11.	33

Customer Communication	
12. a.	33
12. b.	33
13.	33
14.	33
14. a.	33
15.	34
16.	34
17.	35
17. a.	35
18.	35
19.	36
19. a.	38
20.	38
20. a.	38
20. b.	38
20. c.	39
20. d.	39
Material Considerations	
21.	39
21. a.	39
21. b.	39
21. c.	39
21. d.	40
22.	40

Restoration Process	
23.	40
24.	40
24. a.	40
24. b.	41
24. c.	41
25. a.	41
25. b.	41
25. c.	41
Outages	
26.	41
27.	42
Hardened and Non-Hardened Structures	
28.	42
29.	42
30.	43
31.	43
32.	43
33.	44
34.	44
Critical Infrastructure Restoration	
35.	44
Underground Facilities	
36.	45
37. a.	46
37. b.	46

**Lee County Electric Cooperative, Incorporated, LCEC
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**NOTE: LCEC was not affected by Hurricanes
Hermine, Matthew, Maria, and Nate. All data request
responses are for Hurricane Irma only.**

Staging for Utility Personnel and Mutual Aid

1. Please describe the pre-storm coordination process for Hurricane Irma.

September 4 – LCEC reached out to contractors to determine availability of linemen and tree trimmers.

September 5 – LCEC confirmed the requests for contract resources.

September 5-10 – Pre-storm meetings were held with the Emergency Restoration Committee along with company management for storm preparation. Each Committee member discussed the preparation efforts of each of their assigned roles in the plan.

a. Dates and topics of internal meetings held after each storm was named.

September 4 – C&M Manager

- Tele-conference with the senior supervisors of Vegetation Management and Contract Construction requesting they check with existing contract vendor resource on availability for the upcoming storm.

September 4 – Restoration Committee

- Storm intensifying to 180 mph.
- Models indicate impact to LCEC territory.
- Contract crews to be contacted.
 - Arrangements to be made for food/lodging.
- Activate subgroups, ready homes, and be prepared to respond.

September 5 – Restoration Committee (*Communication to employees*)

- Current forecast indicates some impact around Saturday. Better indication by Thursday.
- All employees play a critical role in the LCEC restoration plan, either working directly with restoration or providing support.
- Now is the time to review the plan, know your role, and prepare your home and family in case we are impacted.
- Later in the week it will be determined if the main building and pet shelter will be open for immediate family members. Stay tuned.

- LCEC is securing needed resources to prepare for a safe and speedy restoration if impacted.
- Thank you in advance to your commitment to our customers.
- Subgroup leaders to let employees know they are expected to work Saturday and when to return after the storm passes.

September 5-10 – C&M manager and senior supervisors of Vegetation Management and Contract Construction

- Daily pre-storm meetings.

September 5 – Subcommittee Meetings

- All subgroups meet with teams to identify expectations and review plan.

September 6 – Employee Hotline

- Online and telephone employee hotline activated to communicate vital restoration plan information.

September 6 – Financial Accounting Team

- Met for a half hour from 9:00-9:30 a.m., or immediately after the full company's restoration meeting, regarding preparation for FEMA documentation requirements, restoration cash needs, and other accounting-related storm restoration activities.

September 6 – Restoration Committee (*communication to employees*)

- Although Irma is moving a little more toward the east, LCEC continues to proactively plan for the worst and expect the best.
- The latest forecast indicates tropical-force winds beginning as early as Thursday and increasing through Sunday. Employees are encouraged to get their homes ready. Please talk to your supervisor if you need time off so that we can schedule accordingly to continue operating the business.
- The LCEC buildings will be open on Saturday and Sunday to address outages prior to the storm, and employees are welcome to bring their family members that live in their household if they need a place to stay. The building is rated for Category 2, and the winds are not expected to be above that on Saturday and Sunday. If you plan to be here, please bring the following:
 - Prescription medications
 - Snacks or special foods
 - Air mattress, lawn chair or bed roll
 - Books, magazines, electronic entertainment items with headphones
 - Change of clothing
 - Towels, wash cloths
- The pet shelter at the LCEC building on Bayshore will be open Saturday and Sunday also. If you bring a pet, it must be in a cage, with food/medications, and you must care for them yourself.
- The childcare center will be open on Saturday and Sunday. More details will follow. Please plan to bring books, games, etc., to keep children occupied.

- If you have concerns about where to go during the storm, please consider a government shelter, listed on your local government websites.
<http://www.leegov.com/publicsafety/emergencymanagement/shelters/publicshelters> <http://www.colliergov.net/your-government/divisions-a-e/emergency-management/current-emergency-information/collier-county-shelter-locations-evacuation-routes>
- If you are not in an essential restoration role and plan to evacuate, please discuss with your restoration subcommittee leader and plan to return as soon as safely possible after the storm to support those conducting restoration.
- As Irma gets closer, employees can call the LCEC Hurricane Hotline outside of normal business hours, (239) 656-XXXX, for recorded updates. Employees can also check the electronic hotline at www.lcec.net/XXX for working conditions and other updates.

September 6 – Restoration Committee (*communication to employees*)

- Irma forecast: At the 11 a.m. update, the storm track is a little farther east. Although this is good news, we are still in the cone and planning for the worst while hoping for the best! Thank you for your commitment to serving our customers!
- If evacuating: Unplug electrical equipment such as radios, televisions, and small appliances. Leave freezers and refrigerators plugged in unless there is a risk of flooding. If there is damage to your home and you are instructed to do so, shut off water, gas, and electricity before leaving. Visit <https://www.ready.gov/evacuating-yourself-and-your-family> for more information.
- Who can stay at LCEC this weekend?: The family members who live in your house with you can stay at LCEC if needed. Please bring supplies that your family will need such as blankets, pillows, meds, towels, snacks, reading materials.
- Prescription meds: Because of the impact that Hurricane Irma will have in the state of Florida, Cigna Pharmacy Management has ordered the waiving of all “Refill Too Soon” restrictions in Florida. This order is effective for 30 days, from September 5, 2017 to October 5, 2017.
- Code Red Emergency Alerts: You can sign up for emergency alerts wherever you are by visiting <https://public.coderedweb.com/cne/en-US/BFB7CC4C6C0A>. You will be notified by your local emergency response team in the event of emergency situations.

September 6-25 – Materials Management Subgroup

- Daily pre- and post-storm meetings were held with Purchasing and key suppliers to assess current inventory levels and critical material requirements.

September 7 – Financial Accounting Team

- Met for a half hour from 9:00-9:30 a.m., or immediately after the full company's restoration meeting, regarding preparation for FEMA documentation requirements, restoration cash needs, and other accounting-related storm restoration activities.

September 7 – Assessment & Inventory Subgroup

- Information regarding potential storm track, damage, activities, assignments, and schedules. Leads subsequently met with their team.

September 7 – System Operations

- Staff schedule, support, and responsibilities were discussed in preparation for long-term storm restoration.

September 7 – Restoration Committee (*communication to employees*)

- The path of the hurricane is still uncertain at this time. We continue to plan for the worst and hope for the best. It is better to be prepared and hopefully this is just a good exercise for us. Please be making a list of potential improvements to our plan in case we need it in the future. Continue to monitor the storm, and prepare your family and home if you have not already.
- Spending the night at LCEC?: LCEC will be open at 8 a.m. on Saturday. More details to follow about childcare center and pet shelter.
- After the storm: No matter where you are riding out the storm, please be sure to report to your Restoration Lead as soon as it is safely possible afterward. If the storm impacts our service territory, we will need all employees to assist in restoration efforts.
- Restoration resources: We have out-of-town contractors joining the LCEC line resources, including tree trimmers, to be ready for restoration. We will be staging equipment close to LCEC, and, depending on the storm's impact, we will add staging areas where needed.
- Representatives at emergency operations centers: LCEC has representatives at the Lee, Collier, Sanibel, Marco, and Cape Coral centers to provide the latest two-way information.

September 7 – Customer Care Center Meeting

- In preparation for the outages we will experience throughout our service territory, LCEC's Restoration Committee has activated the Customer Care Center to be open on Saturday and Sunday from 10 a.m.–4 p.m. Calls will be handled by employees who plan to use the NFM building as a shelter and have agreed to work. Please send your confirmation to work on Saturday and Sunday to the CCO Team Lead distribution list.
- Department-specific instructions will be added to the CCC Absent line beginning on Sunday at 8 p.m. That phone number is 239-656-XXXX, enter extension XXXX# to listen to the recording, then hang up prior to leaving a message. Please know which group you are assigned (Group A or Group B).

- Call LCEC's Disaster Recovery Hot Line at 239-656-XXXX for recorded instructions throughout the weekend as needed.
- We will communicate more information on next steps once they become available.

September 8 – Restoration Committee (*communication to employees*)

- You have probably seen that the latest track moved more toward the west. This is a powerful storm, and we are expecting our service territory to be impacted. So thank you in advance for your role in restoration. All employees will be needed immediately following the storm when it is safe to report to work.
- Evacuations: The Barrier Islands received mandatory evacuation orders yesterday afternoon as a precaution. The roads will be very congested, and fuel is at a premium. If you plan to leave the area, please proceed with caution and patience. Plan to return as soon as possible and when it is safe to assist with restoration. All employees are critical to the plan.
- Temporary lodging at LCEC: Check in Saturday from 8 a.m.-8 p.m. Be sure to let XXX know you plan to stay if you have not already done so. If you said you were going to lodge at LCEC and your plans have changed, please notify XXX of that also for planning purposes.
- Park in the employee parking lots, not in the lot in front of the building. This area should be left open for those who may have to come and go for restoration duties. Overflow parking is available at the bank building on Bayshore Blvd.
- Pet Lodge: Check in from 8 a.m. – 6 p.m. People will not be able to sleep in the pet lodge. Space is limited, as pets will be housed upstairs. Feel free to check on them as long it is safe to travel to the Service Center.
- If you have valuables in your workspace, put them away: Although it will be family staying at LCEC for temporary lodging, it is recommended that you secure your personal belongings. It is possible that families may have to be placed in your work area. We know that everyone will respect the facility and private workspace.
- If your roof is damaged and you need a tarp: Employees with roof damage after the storm should contact XXX to get on the list for tarp coverage.

September 8 – Financial Accounting Team

- Met for a half hour from 9:00-9:30 a.m., or immediately after the full company's restoration meeting, regarding preparation for FEMA documentation requirements, restoration cash needs, and other accounting-related storm restoration activities.

September 8

- Evacuation/shelter information for employees and out-of-state contractors.

September 8 – Restoration Committee (*communication to employees*)

- Winds will begin to impact our area late Saturday evening and into Sunday. We are expecting our service territory to be impacted, so thank you in advance for your role in restoration. All employees will be needed immediately following the storm when it is safe to report to work.
- Evacuations: Mandatory evacuation orders have been extended. LCEC is within the evacuation zone due to the possibility of water. We do not expect the building to be impacted. Employees are encouraged to do what they feel is best for their family. The roads will be very congested, and fuel is at a premium. If you plan to leave the area, please proceed with caution and patience. Plan to return as soon as possible and when it is safe to assist with restoration. All employees are critical to the plan.

September 9 – Restoration Committee (*communication to employees*)

- Irma continues to head our way, and we will begin to experience tropical-force winds later this evening and into tomorrow morning. Tomorrow afternoon, beginning around 2 p.m., Irma is predicted to hit our area. Today is the day to seek shelter or evacuate. Please be sure to check LCEC Hurricane Hotlines at 239-656-XXXX or www.lcec.net/XXX as soon as the storm has passed. If your restoration team has their own hotline, please check that one for specific instructions for your role. We need all employees to return to work as soon as it is safe.
- Thank you!: A lot of work has already taken place this week. Thank you for stepping up to help! We are going to get through this together. LCEC has a long tradition of making it through the storm and doing what we do best, serving our customers.
- Resources: Field personnel have arrived from Tampa, Texas, Connecticut, Ohio, and more are on the way! They are bracing for the storm just as we are, and they will be ready to restore as soon as it is safe to work.

September 9 – Restoration Committee (*communication to employees*)

- Irma continues to head our way. We are still expected to see tropical-force winds tomorrow, and the peak of the storm is predicted to be in our area around 5 p.m. and may last for a few hours. Afterward, storm surge is predicted for parts of our service area.
- LCEC lodging news: Please do not try to open or close the hurricane shutters. They are sensitive, and Property Management staff will operate as needed. Thank you for your assistance!
- Out-of-state crews are local, and more will be on the way as soon as the storm passes.
- Please continue to monitor the weather, keep your family safe, remain optimistic, and help each other through this trying time. Check LCEC Hurricane Hotlines, 239-656-XXXX or www.lcec.net/XXX, as soon as the storm has passed for updated information.

- The 11 p.m. forecast shows Irma drifting a bit toward the west. This is positive news! If this trend continues, the eye may not impact our area as hard. The forecast has been reduced to a Category 3 storm when it reaches our area. The track is still fluid at this time, and the storm will still present a major impact. But this is better news than we have had in a few days!

September 10 – Restoration Committee (*communication to employees*)

- As you can tell, Irma is bearing down on our service territory. It is expected to reach 120 mph winds from 7 p.m. to possibly midnight. Stay calm and help those around you who may need it. Continue to check the Employee Hotline at 239-656-XXXX and www.lcec.net/XXX for restoration reporting instructions as soon as it is safe to get to work. The Hotline will be updated after the 8:30 a.m. restoration meeting and the 4 p.m. meeting, or as needed. Keep safe!

September 11-29 – Restoration Committee

- Restoration status updates, resources on-hand, food/lodging, media updates.

b. Dates and topics of external communication pertaining to mutual aid held after each storm was named.

Multiple daily conversations with our existing vendors and storm rate contractors occurred from September 4 and beyond landfall on September 10. Subject topics included:

- Resource availability
- Arrival times
- Crew rosters
- Staging, lodging and feeding direction
- Storm Restoration Supervisor (SRS) meet and greet
- Material pickup

Also, members of LCEC executive staff participated in periodic telephone calls with staff in the Governor's Office as well as in group conference calls, as schedules allowed, sponsored by the Governor's Office: Utility Calls, County Official Calls, and City Official Calls.

September 5 – LCEC's fuel vendor was contacted to activate our existing emergency fuel services contract and was requested to stage two mobile fuel tankers onsite.

September 5 – Media release regarding preparation and arrangements for out-of-town contractors.

September 5-29 – Social media updates provided information about restoration resources.

September 5 – Lee County Emergency Operations Center (EOC) report regarding preparation.

September 5 – Cape Coral EOC report regarding preparation.

September 5 – News-Press article regarding utilities preparing for Irma.

Hurricane Irma: Electric utilities preparing for storm's arrival

[PATRICIA BORNES](#), pbornes@news-press.com Published 1:08 p.m. ET Sept. 5, 2017 | Updated 6:32 p.m. ET Sept. 5, 2017

The companies that keep the lights on in Southwest Florida are monitoring Hurricane Irma to be ready to pre-stage crews for the potential clean up to come.

"We are proactively planning like we are going to be impacted," Lee County Electric Cooperative spokeswoman Karen Ryan said.

LCEC employees were told to prepare their homes and families now in order to be available to restore power if, as seems as increasingly likely, Irma strikes its customers in five counties, including Cape Coral and the Southwest Florida islands as well as eastern Collier.

Having sufficient manpower to restore power after a storm is a critical part of utility preparedness.

"We work with other utilities outside Florida when we believe we need it," Florida Power and Light spokesman Bill Orlove said. "During Hurricane Matthew we had nearly 15,000 inside and outside crews working the largest restoration effort we've had in terms of manpower."

While neither utility has personnel in Texas helping restore power to hurricane victims there, LCEC contractors currently in the Lone Star state have committed to be available for Irma, Ryan said.

Once Irma's path through Florida is better known, crews will be stationed in the vulnerable areas to be ready to restore power when the storm has passed.

Restoring power isn't instant for many reasons. Most of the companies' infrastructure consists of poles and lines that have to be repaired by crew in lifts and buckets.

Critical resources like hospitals and fire stations get first priority, so if you're on the same line as those facilities, you benefit. Lines that support the largest numbers of people get restored before lines that may only support one or two homes.

Both companies trim trees around their lines in preparation for hurricane season to reduce the chance of damage. Both also invest in beefing up their poles to withstand greater wind forces.

"After Hurricane Wilma (in 2005) we found a lot of poles came down,," Orlove said. "It's easier to restore a power line than rebuild the system, so over time we've strengthened the poles to make sure they're still standing when the storm clears."

Crews can't necessarily start restoring power immediately after the worst of the storm. For the safety of its personnel in buckets on lifts, FPL requires the wind speed drop to 35 mph or lower, Orlove said.

LCEC field crew do work in tropical force winds, Ryan said.

"It is up to the linemen's discretion," Ryan said. "This is what they live for. They will know if it's safe."

While it's tempting to clear the yard and put your debris out before a hurricane hits, "Now is not the time to be out trimming trees," Orlove said. "If you put out debris and it doesn't get picked up, it can become a hazard."

Find this and other storm prep advice at www.fpl.com/storm.html.

September 6 – Collier County EOC conference call report regarding preparation.

September 6 – Sanibel EOC report regarding preparation.

September 6 – Cape Coral EOC briefing. Report re: out-of-town contractors.

September 6 – Cape Coral Construction Industry Association email blast w/LCEC Storm Center link.

September 6 – Sanibel EOC briefing.

- The Sanibel bridge will stay open until sustained 40 mph winds. At that time ,the bridge will close until safe to travel.
- The Island EOC will be at the new fire dept. near City Hall post-storm.
- At this time – NO mandatory evacuation for Sanibel.
- Should conditions change and they evacuate, City staff (mayor, council, city manager, etc.) will meet at the Crown Plaza in Fort Myers to conduct business.

Staging

- Ding Darling said we can stage post-storm materials at two various locations: the former Island Water area and the parking lot of Ding Darling. Both areas are large and have a pull-in and exit. He would like me to contact him should we decide to stage materials. However, there is no security.
- We have a few passes for re-entry.

September 6 – Preparation blog on www.lcec4capecoral.com.

September 6 – Media Release

LCEC Prepared for Hurricane Irma: LCEC's preparation began long before Hurricane Irma threatened to make landfall in Southwest Florida. To ensure LCEC has the resources needed for restoration, the utility relies on relationships that have been cultivated over the years with power line and tree-trimming contractors, fuel companies, material vendors, food service vendors, other cooperatives and local agencies. Out-of-town crews will begin to arrive throughout the day tomorrow.

In addition, more than 375 LCEC employees play a critical role in the restoration plan. Employees put their typical job responsibilities on hold to pitch in during restoration. Employees focus on coordinating out-of-town crews, delivery of materials, damage assessment, and restoration. Other employees become food and water delivery experts for crews who often don't have time to stop and grab a bite to eat. Some employees even organize laundry service so that crews working days on end to restore

power in some of the most treacherous areas of Southwest Florida have clean clothes to wear.

September 6 – Update to Senator Marco Rubio’s office re: storm preparation and out-of-state contractors. (phone/email to Wes Brooks)

September 6 – NBC-2/ABC-7 feature story regarding storm readiness/safety tips.

September 7 – Lee County EOC press conference reporting number of out-of-town linemen/tree trimmers (200/200).

September 7 – Lee County EM website update.

September 7 – Sanibel EOC resource update.

- Mandatory evacuation orders will be issued tomorrow morning for Barrier islands, including Bonita Beach, Fort Myers Beach, Sanibel, Captiva, and Pine Island, and mobile and manufactured homes throughout Lee County
- Tolls at Lee County’s three bridges – Midpoint, Cape Coral and Sanibel Causeway – are suspended until further notice.

September 8 – Initial call went out to our pole manufacturer to confirm resource availability of a boom truck and driver for Materials Management support.

September 12 – Identified FPL as potential resource for material requirements if needed.

September 8 – Collier EOC full activation. Resources report at morning meeting.

September 8 – Lee County EOC resource update. Governor Scott present.

September 8 – Marco Island EOC resource update.

September 8 – Sanibel EOC resource update.

September 8 – Media Release

North Fort Myers, FL – LCEC has been spending the week gearing up for a potential impact. The wheels are put in motion well in advance of a certain threat in order to appropriate line crews, materials, tree-trimmers, fuel, and support services and supplies. “I am proud of all the preliminary actions that employees are taking to ensure we are ready to respond if Irma impacts our service territory,” said LCEC Chief Executive Officer Dennie Hamilton.

Early preparation will pay off for LCEC since customers are located in Collier, Broward, Hendry, Lee, and Charlotte Counties and all will most likely be impacted.

LCEC prepares for hurricanes year-round through routine maintenance, vegetation management, and keeping up with the latest technology. Each employee is part of the restoration plan. They begin reviewing the plan in early May, conduct exercises, and update processes with the hopes that they won’t need the plan but confident that if they do, they will be ready.

- System operators continue to monitor Irma’s track and provide updates to planners.
- Out-of-town linemen are on the way from Texas, Alabama, and possibly Georgia.
- Tree-trimming crews are already in the area and conducting last-minute trimming.
- Extra materials were ordered and are onsite and ready to be staged at impacted areas.
- Vehicles are fueled and ready to go as soon as it is safe to work.
- Lodging has been secured so that crews can get a few hours of rest between service calls.
- Meals for nearly 1,000 restoration team members are planned.

September 8 – Contact w/NRECA re: potential communication support.

September 8 – NRECA contacted LCEC re: federal assistance if needed.

September 9 – Lee County, Collier County, Cape Coral EOC resource updates.

September 10 – Media release re: early outages. (10 a.m.)

LCEC crews continue to restore power during the feeder bands. We have crews working right now. **WE WILL NOT TURN THE POWER OFF**

INTENTIONALLY. Once it is unsafe to work, we will let Irma run her course. Then we will begin restoration efforts.

When it is safe to work we will:

1. Assess the damage
2. Restore power to essential services such as hospital, first responders, shelters
3. Restore main power circuits on the main arteries
4. Restore feeder lines
5. Restore areas that have the most damage
6. Restore single outages
7. Return to restore areas that could not be restored due to damage to the customers infrastructure. (Due to damage)

Area	Number Customers	Customers Out of Power
Marco Island	19,210	95
Immokalee	13,189	341
Carnestown (Naples)	3,275	876
Lehigh Acres	29,385	146
North Fort Myers	51,803	418
Cape Coral	82,690	181
Pine Island	7,282	27
Sanibel	10,970	18
	217,804	2,102

September
– Fox 4 story

re: crews on location ready to restore when safe.

September 10 – Online updates from Fox4, Breeze, News-Press, NBC2/ABC7, WINK, WGPU re: outages and number of resources available.

September 10-22 (daily) – Media updates and social media reports were provided at 6 a.m. and 6 p.m. until all customers were restored. Many updates included the number of resources working on restoration.

September 11-24 (daily) – FPSC resource updates were provided daily and as needed.

September 10-22 (daily) – Resource updates were provided to Lee, Collier, Sanibel, Marco Island, Cape Coral EOC.

c. Date mutual aid was requested and nature of request.

September 4 – Resource availability inquiry.

September 5 – Resource procurement based on LCEC Storm Estimator for a north/south system impact.

September 5 – Contacted fuel vendor to activate our existing emergency fuel services contract and was requested to stage two mobile fuel tankers onsite.

September 15 – Contacted FPL regarding the availability of 100A Fuse Links.

September 16 – FPL supplied us with qty. 200 100A Fuselinks.

September 16 – Contacted our pole manufacturer and activated the request for a boom truck and driver for Materials Management support.

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.

Assessment & Inventory Subgroup – Perform the tasks designated in the Emergency Restoration Plan throughout the restoration period.

- Distribution Designers (6)
- D&E Assistants (4)
- GIS Specialists (6)
- D&E Coordinators/Engineers (12)
- Note: This does not include Designers assigned to C&M as SMS's (2)

Materials Management Subgroup

- Purchasing Agents (3) – assigned to the Material Acquisition tasks
- Material Coordinator (1) – assigned to staging, tracking, and expediting of critical material requirements.
- Inventory and Investment Recovery Specialist (1) – assigned to Materials Management/Inventory Support and FEMA Compliance.
- Supervisor Warehouse (1) – responsible for all warehouse activities including staging of materials, stocking materials, truck inventory, disposal of materials, debris clean-up, etc.
- Warehouse staff (12) – perform warehouse/material handling activities

Property Management (PM) Subgroup

- Facilities Team (5) – handle preparation and restoration activities of all LCEC facilities before, during, and after the storm.
- Security Team (10) – arrange to have armed guards present at staging locations and at entrances of pre-designated facilities to secure equipment and materials.
 - Contracted security guards (7)
 - Field Services technicians (3)
- Transportation/Fleet Team (9) – stock fuel, parts, and stage vehicle equipment and material in preparation of impending storm. Provides repair service to all LCEC and contractor equipment during the storm restoration.
 - Mechanics (8)
 - Fleet Supervisor (1)
 - Fuel contractor employees (3)
- Food Team – Coordinate food catering, ice and drinks for LCEC employees and contractors.
 - Property Management employees (4)
 - LCEC pool employees (2)
 - Catering services staff employees (8)
- Lodging Team – Coordinate accommodations for those contractors arriving from outside of our area, as well as those staying at our main facilities during the storm.
 - Property Management employees (2)
 - LCEC pool employees (9)

System Operations Subgroup – Maintain the integrity of and operate the electrical system, analyze and coordinate the restoration of electrical outages, issue switching orders to crews in field and maintain field crew safety under all conditions

- Senior System Operators (6 day shift, 2 night shift)
- Support staff (1 day shift, 1 night shift)

Key Accounts Subgroup – Establish and maintain contact with the Key Account customers of LCEC before, during, and after an emergency/disaster affecting our service territory. Provide support to the Key Account customers and solicit their aid in restoring normal electric service to their facilities as well as those of their neighbors. Update contact information, generator availability, and high-priority needs.

- Key Account Executives (2)
- Key Accounts Associate (1)
- Support staff (1)

Emergency Operations Center (EOC) Subgroup – Act as a buffer and liaison between LCEC and County and City Emergency Operations Centers (EOC). Employees assigned to EOCs will work out of the EOC centers as needed.

- Team members (8)

Customer Communications Subgroup – Respond to customer inquiries by telephone, internet, and/or through social media concerning restoration efforts.

- Customer Care Operations Team Members and others (60)
- Customer Care Supervisors/Support (11)

Employee Communications Subgroup – Provide LCEC employees with information about the storm's progress and what actions to take. Provide LCEC employees and those from other companies assisting in the restoration with information about the restoration progress.

- Public Relations staff (3)
- IT support (1)
- Other support staff (2)

Employee Pool – Employees who are not assigned to a specific task prior to, or during, a disaster or emergency. Since the nature and type of disaster can vary, maintaining an Employee Pool will allow flexibility in effectively responding to different restoration needs.

- Employee Pool Coordinators (2)
- Various staff (~24)

FEMA Compliance Subgroup

- Supervisor Accounting (1) – Primary FEMA Coordinator responsible for all documentation required for FEMA reimbursement.
- Manager Financial Accounting (1) – Alternate FEMA Coordinator and manager of all storm restoration accounting responsibilities including cash requirements, accounting for storm transactions in accordance with GAAP, fixed asset accounting, etc.
- Director Finance & Accounting/CFO (1) – Responsible ultimately for all storm-related accounting and FEMA requirements, materials management for all storm-related materials, inventories, and supplies.
- Financial Accounting staff (5) – Responsible for all storm-related accounting transactions, fixed-asset accounting, accounts payable, FEMA documentation, timekeeping, general ledger requirements, etc.
- Supervisor Purchasing (1) – Responsible for procuring all storm-related materials and supplies, and related accounting and inventory control.
- Purchasing Agents (3) – Responsible for procuring all storm-related materials and supplies under the Supervisor Purchasing's leadership.
- Materials Coordinator (1) – Responsible for coordination of materials and supplies.
- Inventory Investment/Recover Specialist (1) – Responsible for inventory management.
- Supervisor Warehouse (1) – Responsible for all warehouse activities including staging of materials, stocking materials, truck inventory, disposal of materials, debris clean-up, etc.
- Warehouse staff (12) – Perform warehouse activities

3. When did the costs for Hurricane Irma begin to accrue for receiving mutual aid?

September 5, 2017

Damage Assessment Process

4. Please provide a detailed overview of the initial damage assessment process for Hurricane Irma, 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.

Damage assessment is performed by both Construction personnel and Design & Engineering personnel.

Construction uses Storm Restoration Supervisors (SRS) to coordinate assessment and restoration. LCEC has annual Storm Restoration Exercises to refresh existing Storm Restoration Supervisors (SRS) and train new ones on their duties and responsibilities in the event the Emergency Restoration Plan is activated and their services are required. Prior to Hurricane Irma, each SRS was assigned a substation and crews, both LCEC and contract, as they became available.

Maps of assigned areas are provided to each SRS. On these maps they would note damage. At 2 p.m. and 9 p.m. each day, copies of the working maps were returned to LCEC and scanned to use for planning upcoming work. A copy of the map was returned to the SRS for further updates. The data on the maps were used to determine where crews need to be assigned based on workload needs. They were also used to determine what material was needed in to each area.

The role of the SRS is the following:

- a. Coordinate crews assigned
 1. Damage assessment are completed by the SRS and assigned crews through the following processes
 - I. Strip and go the feeders
 - II. Restore non-damaged taps
 - III. Repair damages
 - IV. Update the outage information daily by:
 - i. Debrief at the end of every day with the Restoration Leadership in the War Room.

- ii. Receive updates and assignments at the beginning of each day from the Restoration Leadership.
 - iii. Organize and execute assignments.
 - iv. Midday updates into the War Room either by phone or runner.
- b. LCEC Construction personnel were assigned to areas, typically associated with a substation. These Construction personnel included:
- 1. Linemen
 - 2. Supervisors
 - 3. Distribution Designers
 - 4. Other people with outside line experience

	War Room	SRS	Runner	Linemen	TT	TOTAL
09/11	8	21	21	212	129	391
09/18	9	22	22	356	170	579
09/25	9	21	21	440	189	680
10/02	9	18	18	285	32	362

Peak Restoration Effort		
Title	Years of Experience	Number of Crews Managed
Leadership (Manager)	32	601
Leadership (Sr. Supervisor)	14	189
Leadership (Sr. Supervisor)	31	220
Leadership (Sr. Supervisor)	34	220
SRS (Supervisor)	20	22
SRS (Lineman)	27	33
SRS (Lineman)	15	32
SRS (Coordinator)	17	10
SRS (Lineman)	20	26
SRS (Lineman)	20	10
SRS (Lineman)	11	62
SRS (Supervisor)	19	48
SRS (Contractor Supervisor)	20	38
SRS (Coordinator)	25	38
SRS (Lineman)	8	13
SRS (Lineman)	9	18
SRS (Meterman)	11	24
SRS (Supervisor)	14	43
SRS (Supervisor)	20	20
SRS (Lineman)	13	28
SRS (Lineman)	12	29
SRS (Coordinator)	12	35

SRS (Supervisor)	17	38
SRS (Designer)	12	10
SRS (Coordinator)	20	27
SRS (Supervisor)	30	25

Design & Engineering supplied the second and third wave of damage assessment. The Distribution Designers, along with GIS personnel and Design Engineers, were assigned substations for inspection. Several people from other departments were assigned as drivers to assist in this assignment. On average, there were 12 crews in the field performing these inspections.

These personnel would drive the bulk of the lines in each substation. While doing this, they were recording both repairs that have been made as well as damage still needing to be repaired.

Once the first pass was completed, a second pass was performed after the bulk of the system had been restored. This was to find any damage that needed immediate attention that may have been missed by either both inspections or by the line crews. They also used this to document items that needed to be completed but were not as critical. Examples of these are leaning poles and wire that is out of proper sag.

The third inspection group is the personnel that inspected the system to determine debris cleanup needs. These were LCEC employees who were sent to determine what equipment needs to be cleaned up after all repairs have been completed. These include but are not limited to poles, wire, and transformers. These crews also noted any damage that may have occurred and but not been documented or repaired at that point. These crews were typically three people.

Damage assessment photographs on following pages:

LCEC Response to Docket No. 20170215-EU





LCEC Response to Docket No. 20170215-EU

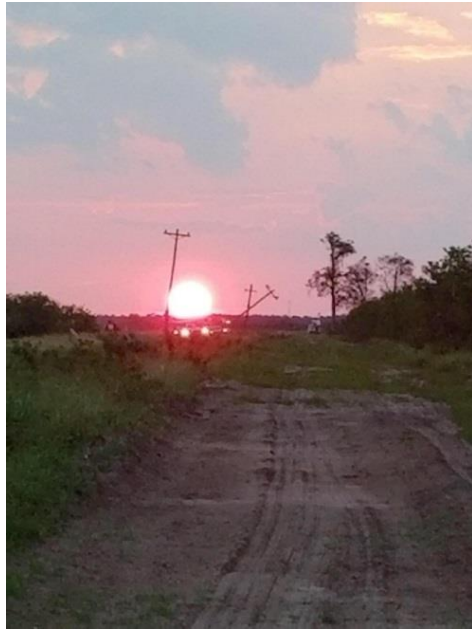




LCEC Response to Docket No. 20170215-EU



LCEC Response to Docket No. 20170215-EU



LCEC Response to Docket No. 20170215-EU



LCEC Response to Docket No. 20170215-EU



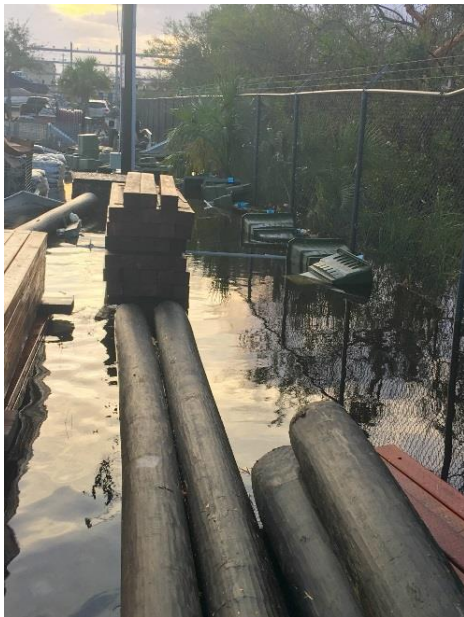
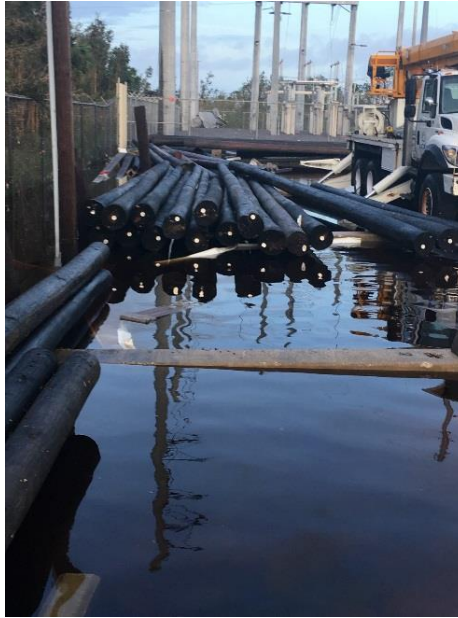
LCEC Response to Docket No. 20170215-EU





LCEC Response to Docket No. 20170215-EU





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

Each Storm Restoration Supervisors (SRS) is provided substation and circuit maps for what they are responsible for. The SRS maintains a master map and the crews have user maps. The SRS updates a map using color coding and time/date-restored bracketing twice a day for pick up by a runner that drops off the map at the War Room at 1 p.m. and 9 p.m. The War Room staff reviews the maps, clarifies any discrepancies, and passes on to Technical Services for outage updating and “on meter” verification. Technical Services turns the update over to Public Relations in time for the 6 p.m. press release and the 6 a.m. press release.

Restoration Workload

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

As Hurricane Irma progressed through LCEC service territory on the night of September 10 and morning of September 11, Systems Operations monitored the status of our system and reported it to the Restoration War Room in the following categories and subcategories.

- Transmission line section outages
- Substations totally de-energized not caused by a transmission outage
- Circuit outages at substations with some circuits still energized
 - Circuits under System Operation control (i.e.. energized at the station breaker)
 - Circuits under the Restoration Team’s control (i.e., de-energized at the station breaker)

Restoration activities kicked off on the morning of September 11 at approximately 6 a.m. when the wind speeds had lowered to a safe enough level to perform restoration activities. The SRS were preassigned to transmission and substations duties prior to the storm with the understanding that adjustments would be made as dictated by the hurricane. On the morning of September 11, our first priority in the north system was a transmission line section that was out feeding three substations. We use the SRS that were assigned to the transmission duties and the SRS assigned to the impacted substation from that outage to assist with the transmission restoration. In addition we continued restoration activities as assigned on the remaining substations and subordinate circuits.

Medical, police, fire, sewer, shelter, lodging, food, fuel and water services facilities should receive the highest priority.

7. For Hurricane Irma, please complete the following table on workload priority:

Personnel responsible for Restoration Workload Assignments		
Title	Years of Experience	Number of Crews Managed
Leadership (Manager)	32	601
Leadership (Sr. Supervisor)	14	189
Leadership (Sr. Supervisor)	31	220
Leadership (Sr. Supervisor)	34	220
SRS (Supervisor)	20	22
SRS (Lineman)	27	33
SRS (Lineman)	15	32
SRS (Coordinator)	17	10
SRS (Lineman)	20	26
SRS (Lineman)	20	10
SRS (Lineman)	11	62
SRS (Supervisor)	19	48
SRS (Contractor Supervisor)	20	38
SRS (Coordinator)	25	38
SRS (Lineman)	8	13
SRS (Lineman)	9	18
SRS (Meterman)	11	24
SRS (Supervisor)	14	43
SRS (Supervisor)	20	20
SRS (Lineman)	13	28
SRS (Lineman)	12	29
SRS (Coordinator)	12	35
SRS (Supervisor)	17	38
SRS (Designer)	12	10
SRS (Coordinator)	20	27
SRS (Supervisor)	30	25

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

As described in Question 4 above, specifically subsection 1., IV., i.-iv, the workload is adjusted daily as progress reports are received in the Restoration War Room. These adjustments could increase or decrease resources required for specific task and shift timelines for restoration (i.e., pull in or push out) based on progress and additional available information.

9. If applicable, please describe how mutual aid was determined to be no longer needed following Hurricane Irma.

As restoration activities are completed, the Restoration War Room leadership made the decision to start releasing out-of-town contractors based on the following:

- Input from the sub-War Room based in Immokalee
- Input from the SRS's around the system
- Outstanding outages
- Outstanding workload

Staffing Considerations

10. Regarding Hurricane Irma, please respond to the following, please provide the following:

Please note that LCEC defines "Utility personnel" as LCEC employees only. "Mutual aid partners" are defined as utility contractors not including LCEC employees.

a. Days of lodging provided for Utility personnel (Person-Days)

Approximately 715

b. Days of lodging provided for mutual aid partners (Person-Days)

Approximately 10,849

c. Number of meals provided for Utility personnel

Approximately 10,545

d. Number of meals provided for mutual aid partners

Approximately 32,549

e. Number of Utility personnel injuries

3

f. Number of mutual aid partner injuries

0

g. Number of Utility personnel fatalities

0

h. Number of mutual aid partner fatalities

0

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

None.

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

October 1, 2017 was the date given for all customers that could receive power had power.

Customer Communication

12. Regarding Hurricane Irma, please respond to the following for each county in the Utility's service territory affected by the storms.

a. Total number of customer accounts

214,963

b. Peak number of outages

180,317

13. Please provide how call center customer service representatives were utilized before, during and after Hurricane Irma.

Before the storm, our agents worked regular 8-hour shifts. We had a total of 8 CSRs who used our facility as a shelter during the storm and assisted with calls from 8 a.m.-4 p.m. Our agents worked 12-hour shifts September 11-30.

14. Please provide the number of customer service representatives the Utility had during Hurricane Irma.

LCEC utilized a total of 51 agents to answer calls 24-hours a day.

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?

Our third-party vendor had 20 agents dedicated to answering our outage calls September 9-30.

15. Please provide the number of customer contacts received by the customer call center(s) during Hurricane Irma.

LCEC handled 43,567 outage-related calls and 2,934 emails during Hurricane Irma. Facebook was used by hundreds of our customers for updates.

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

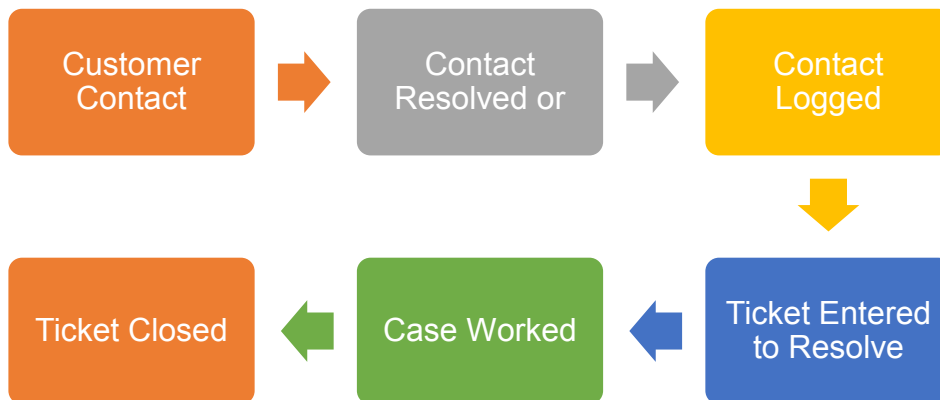
Phone calls, internet request, walk-in office, and social media were methods used to collect customer contacts during Irma.

Methods Utilized to Submit/Collect Customer Contacts				
Method	User	Before	During	After
Contact Center	Customer Care	X	X	X
Email	Customer Care, PR, CEO, Key Accounts	X	X	X
Website/Internet	Customer Care, CEO, PR	X	X	X
IVR	Customer Care	X	X	X
Automated Outbound Calls	Customer Care	X		
Contact Center Vendor (Donnelly)	Customer Care	X		X
Social Media	PR, Customer Care	X	X	X
Direct Phone Calls	PR, CEO, Key Accounts	X	X	X
Government Agencies	PR, Key Accounts	X	X	X
EOCs	PR, Key Accounts	X	X	X
Media	PR	X	X	X

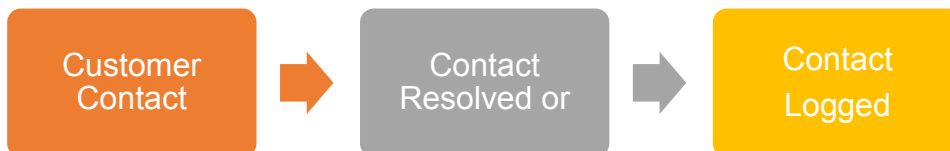
17. Please describe the step by step process(es) by which customer contacts are addressed before, during, and after a named storm event. If different during each timeframe, please describe the step by step process during each separately.

Outage-related calls are entered in our Outage Management System. Non-outage calls are entered in our CRM applications.

Before/During Named Storm



After Named Storm – During Restoration



- a. Did the Utility identify any delays in restoration as a result of addressing customer contacts related to Hurricane Irma? If so, please provide detail.

No.

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?

Customer contacts are not categorized. Our CMS is able to code contacts, and a report can be generated if necessary. The outage management system categorizes calls by topic.

Customer outage-related contacts are categorized by “no power,” “part power,” “wire down,” “low lines,” “high voltage,” “fluctuating voltage,” and “escalations.”

19. Please provide a detailed description of how customer service representatives are informed of restoration progress.

LCEC Customer Care Representatives (CSRs) undergo a rigorous six-week training upon hire. Emergency Restoration is part of the curriculum. In addition, annually CSRs receive an updated copy of the LCEC Emergency Restoration Plan, which is reviewed in detail by team leaders prior to the beginning of storm season (see Memo to All Employees). CSRs are afforded the opportunity to ask questions and make inquiries about how the process works and their critical role in the plan. The Emergency Restoration Plan is located on the LCEC intranet, and employees are encouraged to review continually during storm season, especially when a storm threatens the service territory.

Customer Care meetings take place at various intervals upon the potential of a named storm and continue until all power has been restored. The restoration process and progress is discussed at each meeting.

- Pending Storm – Review the plan.
- Named Storm/Advisory Stage – Review restoration process. Refresh scripts, and advise where scripts are located (CSR shared area).
- Certain Impact/Alert Stage – Review duties/assignments and restoration process. Review restoration scripts.
- During Storm – Twice-daily restoration progress updates. Daily meetings re: restoration progress and potential script revisions, if needed.
- After Storm – Twice-daily outage updates by area, number of customers out, number restored. Daily meetings to inform of restoration progress and areas impacted the worst. Updated and new scripts as needed based on the situation.

How scripts are created – Scripts are developed through a collaboration of the Customer Care Department and Public Relations prior to storm season based on best practice and past storm experience. As new situations arise, scripts are revised and additional scripts are added to the CSR shared areas.

Scripts for CSRs and Social Media Reps are shared in order to provide consistency in service and information (see diagram below).

Twice-Daily Restoration Progress Updates – Detailed restoration progress reports are received from the field twice daily. Maps and restoration data is verified by reliability analyst, and numbers are provided to the Public Relations Department. Twice-daily restoration reports are provided internally/externally at the same time.

Intranet Shared Area for Restoration Scripts

Linus Employee Company Links Divisions Community

CAB Training › Restoration

Libraries **ReadOnly** All Documents Find a file

Site Pages	Name	Created	Created By	File Size	Modified
Shared Documents	Old	September 13	Engler, Be		September 13
Start Service Process Improvement Initiative	Auto Pay Customers Follow-up Letter	September 28	Engler, Be	95 KB	September 28
Lists	Bill Stuffer Letter v1	September 21	Engler, Be	131 KB	September 22
Calendar	Bill Stuffer Letter v2	September 22	Engler, Be	150 KB	September 22
Tasks	Bill Stuffer Letter v3	September 25	Engler, Be	140 KB	September 25
Discussions	Bill Stuffer Letter v4	September 27	Engler, Be	141 KB	September 27
Team Discussion	RESTORATION - Reference Guide 10-16 823am	October 16	Mittica, Joshua	130 KB	October 16
Quick Links	RESTORATION - Collections - Severance - Pmt Extension Talking Points STARTING OCTOBER 23	October 19	Engler, Be	205 KB	October 19
CCO - IVR Reported Outages TST01	RESTORATION - GENERATOR SAFETY	September 6	Zuniga, Laimis	31 KB	September 6
CCO - IVR Reported Outages	RESTORATION - LIFE SUPPORT	September 6	Zuniga, Laimis	35 KB	September 6
Recent	RESTORATION - PRE-STORM INFO	September 6	Engler, Be	23 KB	September 14
CCO Pictures	RESTORATION - RESTORATION PRIORITIES - 1 SHORTEST	September 14	Engler, Be	20 KB	September 14
	RESTORATION - RESTORATION PRIORITIES - 2 SHORT	September 6	Engler, Be	50 KB	September 14
	RESTORATION - RESTORATION PRIORITIES - 3 MEDIUM	September 6	Engler, Be	24 KB	September 24
	RESTORATION - RESTORATION PRIORITIES - 4 DETAILS	September 14	Engler, Be	41 KB	September 14
	RESTORATION - SAFETY TIPS FOR CUSTOMERS	September 14	Engler, Be	36 KB	September 14
	TeleVox Email and Phone Scripts	October 23	Engler, Be	8 KB	October 23

Memo to All Employees Regarding Restoration Plan

TO: All Employees
FROM: Emergency Restoration Committee
DATE: May 1, 2017
SUBJECT: Revised Emergency Restoration Plan

Attached you will find a revised Emergency Restoration Plan for 2017, a reference card to keep at home with important phone numbers, and a new cover for your binder. If you need a binder for this Plan, please contact XXX. This plan will be updated periodically throughout the year and can be found on LINUS.

Please take the time to review this Plan carefully. Check the Employee Subgroup Assignment List (Appendix A, at the rear of the plan) to verify your subgroup assignment so you are prepared if the plan is activated. You should contact your subgroup coordinator to get a copy of your subgroup plan and review it. If you are not on the list, please see your supervisor to be assigned a role for Emergency Restoration.

IF WE DO EXPERIENCE AN EMERGENCY, PLEASE REFRAIN FROM CALLING SYSTEM OPERATIONS. IT IS CRUCIAL THAT THEIR LINES REMAIN OPEN FOR RESTORATION PURPOSES.

YOU CAN CALL 239-656-XXXX FOR RECORDED INSTRUCTIONS AND UPDATES OR VISIT www.lcec.net/XXX. If YOU ARE IN THE EMPLOYEE POOL, PLEASE CALL 239-656-2XXX FOR RECORDED INSTRUCTIONS.

THE PHONE NUMBER FOR THE EMERGENCY MESSAGE CENTER IS 239-995-XXXX. This number is to be used by family members if they are unable to reach you through other methods.

If you have any questions regarding your responsibilities, please contact your subgroup coordinator or any member of the Emergency Restoration Committee.

Thank you,

Emergency Restoration Committee

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?

Scripts are provided to CSRs to relay progress based on twice-daily updates to media and social media. Scripts are adjusted as needed. Daily meetings/briefings are held to address any new developments, process adjustments, etc.

20. Please describe the process the Utility uses to notify customers of approximate restoration times. The response should include at a minimum:

a. How restoration time estimates were determined.

The restoration time estimates were determined using the process in Question 4 above, specifically in Section a. When initial assignments were assigned, the restoration time could not be determined until a damage assessment was conducted. As information became available (within the first day in some cases, to several days in others) restoration estimates were established with the Restoration War Room leadership, who then passed the information on to the Emergency Restoration Committee twice a day, once in the morning and once in the afternoon.

b. How customers are notified.

Customers are notified twice daily through www.lcec.net, social media, and media updates.

c. How restoration time estimates are updated.

Restoration estimates were updated during two steps in the process outlined in Question 4 with the Restoration War Room leadership. Specifically 4.a.1.IV.i. and iv.

- i. Debrief at the end of every day with the restoration leadership in the War Room
- v. Mid-day updates into the War Room either by phone or runner

The updated information was then passed on to the Emergency Restoration Committee twice a day, once in the morning and once in the afternoon. Estimates are updated as advised by the Restoration Subgroup.

d. How restoration time estimates are disseminated internally, to the county and state Emergency Operations Centers, and to the public.

Estimates are communicated twice daily to employees and the public through email, hotline updates, social media, www.lcec.net, and media. Local, State EOC updates are provided twice daily through EOC representatives.

Material Considerations

21. Regarding Hurricane Irma, please provide a description of how vehicle fuel was procured for Utility personnel and mutual aid partners.

LCEC had a pre-arranged emergency fuel supply contract with our fuel vendor who provided LCEC two mobile fuel tankers onsite and filled all vehicles daily during the storm restoration period.

As part of the response, please answer the following:

a. Whether or not the Utility has fuel stored for these types of events

LCEC had delivered in advance and filled two temporary 500-gallon auxiliary fuel tanks (one regular fuel and one diesel fuel) at the four outer warehouse locations.

b. Whether or not fuel shortage was an issue during these events

No fuel shortages or delays were encountered that impacted the restoration timeline.

c. Whether or not there were any delays due to fuel shortage

No fuel shortages or delays were encountered that impacted the restoration timeline.

d. Whether or not there were enough vehicles available during these events/any issues mobilizing crews

No vehicle shortages were encountered. Additional passenger club vans were obtained, and a transportation shuttle bus vendor was contracted to shuttle crews from hotels to staging locations.

22. Please detail any complications or delays such as shortage or delayed delivery of materials for Hurricane Irma.

No material shortages or delays were encountered that impacted the restoration timeline.

Restoration Process

23. Please provide a summary timeline of the utility's restoration process for Hurricane Irma. 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.

LCEC's Hurricane Irma Restoration Timeline	
	Date
Staging	09/05/2017
Allocation	09/07/2017
Mutual aid	09/07/2017
Deployment	09/08/2017
Irma's landfall at Marco Island	09/10/2017
Last outage restored	10/01/2017
Release of mutual aid	10/02/2017

24. Please explain how the Utility validates adherences and departures from its storm preparation plan.

a. If the Utility does not assess departures from its storm plan, explain why not.

The Construction and Maintenance (C&M) department is responsible for securing resources prior to the storm based on our LCEC Storm Estimator (1.c. above). Adjustments are made as information and condition factors change; however, there was no deviation from the original plan.

- b. If the Utility does not document or otherwise memorialize departures from its storm plan, explain why not.**

N/A

- c. 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.**

N/A

- 25. Please explain how the Utility validates adherences and departures from its storm restoration plan.**

- a. If the Utility does not assess departures from its storm restoration plan, explain why not.**

The restoration plan was followed as outlined in number 4.a.1. above. No deviations were required.

- b. If the Utility does not document or otherwise memorialize departures from its restoration storm plan, explain why not.**

N/A

- c. 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.**

Each year we go through the exercise to update our Emergency Restoration Plan, updating employee roles and contractor changes. With the exception of these, no modifications have been made to the plan from 2015 through 2017.

Outages

- 26. Please identify all counties, including reporting regions/division for each county if applicable, that were impacted (had outages or damage) due to Hurricane Irma.**

Lee, Charlotte, Hendry, Broward, Collier.

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 Hurricane Irma.

Weather Impact				
County	Maximum Sustained Winds (MPH)	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)
Lee	62	89	9.02	6
Collier	115	142	14.98	6
Charlotte	51	74	No Data	4
Hendry	62	89	9.02	N/A

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.

LCEC’s policy regarding storm hardening is as follows:

- built critical double-circuit and main-line feeders to higher-than-required criteria
- make a concerted effort to strengthen the transmission system by replacing wood poles with steel or concrete poles on existing lines
- No longer using wood poles for new transmission infrastructure
- followed all of the NESC design criteria at a minimum
- design to a minimum wind speed of 120 mph

29. Please complete the table below summarizing hardened facilities that required repair or replacement as a result of Hurricane Irma.

LCEC had no transmission structures fail during the storm. As distribution infrastructure projects arise, LCEC builds to better than minimum NESC requirements on certain feeders and double circuits. Distribution infrastructure hardening occurs as feeders and lines are replaced due to either end of life, routine maintenance, capacity upgrades, or system operational upgrades. These activities occur throughout LCEC’s service territory.

30. Please complete the table below summarizing non-hardened facilities that required repair or replacement as a result of Hurricane Irma.

LCEC performed some repair on most feeders. We did not keep records on some of these. The same applies with the laterals and services. No LCEC feeders or laterals were completely destroyed. It was believed that none of the services were damaged to the point of needing replacement.

Non-Hardened Facilities		
Irma	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>		
Structures	1 switch (not pole)	0
Substations	0	0
Total		
<i>Distribution</i>		
Poles		740
Substation		0
Feeder OH		
Feeder UG		
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
Total		
<i>Service</i>		
Service OH		
Service UG		
Service Combined		
Total		

31. For Hurricane Irma, please provide a ranking of the five highest volume of outage causation that impacted the Utility’s service area.

LCEC assigns all tropical storm- and hurricane-related outages (including Hurricane Irma) the cause code of Storm. Additional specificity of causation is not available from LCEC's Outage Management System.

32. For Hurricane Irma, please provide a ranking of the top five drivers that protracted service restoration time.

1. Flooding (sheet flow 95% & tidal flow 5%)
2. Accessibility

3. Downed vegetation
4. Early procurement of line resources due to the following causes:
 - The direction of the storm, south-to-north impact statewide with a broad cone of uncertainty as it left the state
 - Out-of-state utilities not releasing crews early due to uncertain storm direction
 - Hurricane Harvey
5. Road traffic coming into Florida and fuel issues extended arrival times.

33. If applicable, please describe any damage prevented by flood monitors during Hurricane Irma.

N/A

34. How many outages were avoided by automated feeder switches during Hurricane Irma? Please explain how the data for each event was collected.

None. LCEC does not have automated feeder restoration control for our distribution system.

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 Hurricane Irma.

Hurricane Irma – CIF			
CIF Name/Type (i.e. Hospital)	County/Location	Restoration Time (min.)	Outage Cause
Hospital (04-2)	Collier - Immokalee	8,756	Wind
Hospital (05-3)	Lee - Lehigh Acres	3,202	Wind
Hospital (16-3)	Lee - North Fort Myers	2,789	Wind
Hospital (19-3)	Lee - Cape Coral	1,613	Wind
Hospital (24-5)	Collier - Marco Island	6,621	Wind
Police (04-1)	Collier - Immokalee	8,830	Wind
Police (05-1)	Lee - Lehigh Acres	4,007	Wind
Police (07-2)	Collier - Marco Island	8,729	Wind

Police (09-2)	Lee - Sanibel	1,011	Wind
Police (19-8)	Lee - Cape Coral	5,463	Wind
Police (24-5)	Collier - Marco Island	6,621	Wind
Fire Station (01-4)	Lee - Cape Coral	1,548	Wind
Fire Station (02-1)	Lee - Cape Coral	3,600	Wind
Fire Station (02-7)	Lee - Cape Coral	961	Wind
Fire Station (08-8)	Lee - Cape Coral	7,887	Wind
Fire Station (09-1)	Lee - Sanibel	1,444	Wind
Fire Station (09-2)	Lee - Sanibel	1,011	Wind
Fire Station (18-2)	Lee - North Fort Myers	1,954	Wind
Fire Station (19-8)	Lee - Cape Coral	5,463	Wind
Fire Station (21-1)	Lee - Pine Island	2,657	Wind
Fire Station (21-2)	Lee - Pine Island	2,794	Wind
Fire Station (23-4)	Lee - Cape Coral	1,475	Wind
Fire Station (24-5)	Collier - Marco Island	6,621	Wind
Fire Station (27-1)	Lee - Cape Coral	3,110	Wind
Fire Station (27-5)	Lee - Cape Coral	4,469	Wind
Fire Station (31-2)	Collier - Immokalee	7,407	Wind

LCEC performed some repair on most feeders (in parentheses above). We did not keep records on some of these. The same applies for the laterals and services.

No feeders or laterals were completely destroyed. It was believed that none of the services were damaged to the point of needing replacement.

Underground Facilities

36. Please provide an assessment of the performance of underground facilities during Hurricane Irma. As part of this assessment please summarize the number of underground facilities that required repair or replacement for each event.

The ratio mileage of overhead to underground primary facilities at LCEC is 6.3 to 1 and 1.75 to 1 on overhead to underground services and secondaries. With that said, the underground primary did experience damage as a result of the following:

- Uprooting of trees
- Equipment washed away due to tidal flooding
- Termination points requiring cleaning before being energized due to salt water contamination

- Damage to some overhead-to-underground transition points requiring cable and pothead replacements
- Failure of underground secondary and services
- Damaged service wire related to pole failures
- Anticipated longer-term corrosion at contact points (PTF and PED) due to salt water tidal flooding

37. Please provide a discussion what programs/tariffs the utility has in place to promote

a. Undergrounding of new construction (e.g., subdivisions)

N/A

b. Conversion of overhead to underground

N/A