



FLORIDA KEYS ELECTRIC COOPERATIVE

Hurricane Irma

FKEC before, during and after



In the early hours of Sunday, September 10, 2017, Hurricane Irma made landfall in the Florida Keys. This Category 4 storm was the strongest to hit our island chain since Hurricane Donna in 1960. Most of FKEC's service territory experienced winds exceeding 100 mph with storm surges of 5 to 7 feet.

The Monday morning after the storm, 90 percent of FKEC's members were without power. The entire Keys were dark south of Snake Creek. The 32 FKEC employees who had not evacuated began the restoration effort.


By Wednesday, less than 72 hours after the storm had passed, base camps were established and FKEC's restoration workforce had swelled to 114 FKEC employees and more than 350 contract workers. This represented a tenfold increase in FKEC's pre-Irma construction capabilities.

On Saturday, September 23, 13 days after landfall, the last of FKEC's members who were able to receive power were reconnected. This was done without a single lost-time injury during the entire restoration effort.

This is the story of the men and women who made this possible.

Photo by Doug Finger Photography





CEO Scott Newberry has dinner with FKEC employees and outside assistance crews at the co-op's Islamorada storm restoration base camp.

Photo by Doug Finger Photography

From your CEO:

Surviving the Storm

I am proud and thankful Florida Keys Electric Cooperative weathered the storm with no injuries or loss of life, and am proud of the dedication of our employees. I am also grateful for the hundreds of workers from all across the country who came to our aid, helping us rebuild our power system and our lives.

In the following pages, we recount the storm restoration numbers and the effort that went into preparing for—and recovering from—Hurricane Irma. While there are countless stories of extraordinary efforts and praise that I will share with you in time, the larger thought that keeps coming to mind is of the years we have all spent preparing for the “big one.” I can still hardly believe the time came for us to test that work. For more than a decade, we have focused on strengthening our infrastructure and crafting plans to deal with all possible storm scenarios. Now, post-Irma, I am happy to say our power system, facilities and storm restoration plan all performed beyond our expectations.

All of this is testament to the foresight of the board of directors, staff and employees at FKEC who have been planning year after year to best serve our members by strengthening and maintaining a power system—a system that stood strong in the face of Hurricane Irma.

Dedication

This book is dedicated to all the men and woman who played critical roles in restoring power to the Upper and Middle Keys, and to those who continue to work to maintain the integrity of that service and this cooperative. This includes FKEC employees, leaders, board of directors, the outside crews that responded to our request for aid and, of course, you, our member-owners.



Photo by John Stuart

Planning for the ‘Big One’



To increase system strength, FKEC upgrades a 138-kilovolt transmission pole along Card Sound Road.

Living in the Florida Keys, we know it is not “will” we get hit by a major storm, but “when.” With this as our reality, after the very active hurricane seasons of 2004 and 2005, the FKEC Board of Directors approved a Storm Hardening Standard in 2006 requiring all new and rebuilt facilities to be constructed to meet the National Electrical Safety Code extreme wind loading criteria.

During the next decade, FKEC spent approximately \$45 million on increased storm-hardening efforts, including building a Category 5-rated Tavernier Operations Center with a reinforced warehouse capable of housing FKEC trucks, equipment and material.

The Tavernier building was designed to operate in stand-alone mode in the aftermath of a major storm. It is equipped with adequate generation, fuel, water, housing, food storage and food preparation facilities to operate independently for three to five days.

The Tavernier Operations Center

served as the base of operations for critical planning and logistics before, during and after Hurricane Irma. The building also housed and fed FKEC employees and contract crews for the first 72 hours after the storm.

While building a storm-strong power system, FKEC also researched available post-storm restoration resources. In 2015, FKEC adopted a “base camp” strategy, and began working with Storm Services, a company specializing in the complete turnkey service to house and feed all of the storm restoration crews necessary following a major storm. FKEC worked closely with Storm Services management to tailor a plan to our needs. Storm Services visited FKEC each year to assist in our annual storm-planning process.

The years of educated planning and preparation—along with monitoring the current situation and adjusting the plan accordingly—proved successful as we stood strong and ready in the face of Irma.

Long-Range Planning

2006

FKEC board approves a storm-hardening standard that requires all new and rebuilt facilities to be constructed to meet the NESC extreme wind loading criteria.

2006-2017

FKEC spends approximately \$45 million on increased storm-hardening efforts, including:

- Pole testing, treating and replacement
- Increased strength of new distribution wood poles
- Use of engineered concrete and ductile iron poles
- Annual aerial, thermal and visual inspections/maintenance
- Vegetation management (three-year trim cycle)

2007-2009

The Tavernier Operations Center is designed and built.

- 62,000-square-foot structure built of poured concrete, including the roof.
- 150+ mph rating, except garage and warehouse doors
- Large reinforced warehouse designed to house and protect bucket trucks and material inside during storms
- Entire structure elevated above flood level
- Base elevation of the warehouse floor is 12 feet above sea level
- Facility built to operate in “stand-alone” mode for at least 72 hours

2015-2017

FKEC determines that its plan to rely on local restaurants and hotels to feed and house outside mutual aid and contract workers inadequate.

In 2015, FKEC adopts a “base camp” strategy to house and feed mutual aid and contract workers brought in to assist with restoration. Storm Services is selected to provide complete turnkey options tailored to our unique needs.

FKEC staff visits Storm Services base camp exercise annually. Storm Services management visits FKEC each year to assist with our annual storm-planning process.

Agreements are made with Monroe County and the village of Islamorada to allow FKEC base camps sites, if needed.



During Hurricane Irma, the FKEC warehouse stored and protected dozens of bucket trucks, material and equipment critical to power restoration.

Photo by Rebecca Callahan Newman

FKEC’s significant financial commitment toward storm hardening the system to extreme wind standards proved to be a sound investment. We are fortunate to have a board of directors who realized how important this was and, in turn, appropriated over \$45 million since 2006 to ensure that our system could withstand the punch of a Hurricane Irma.

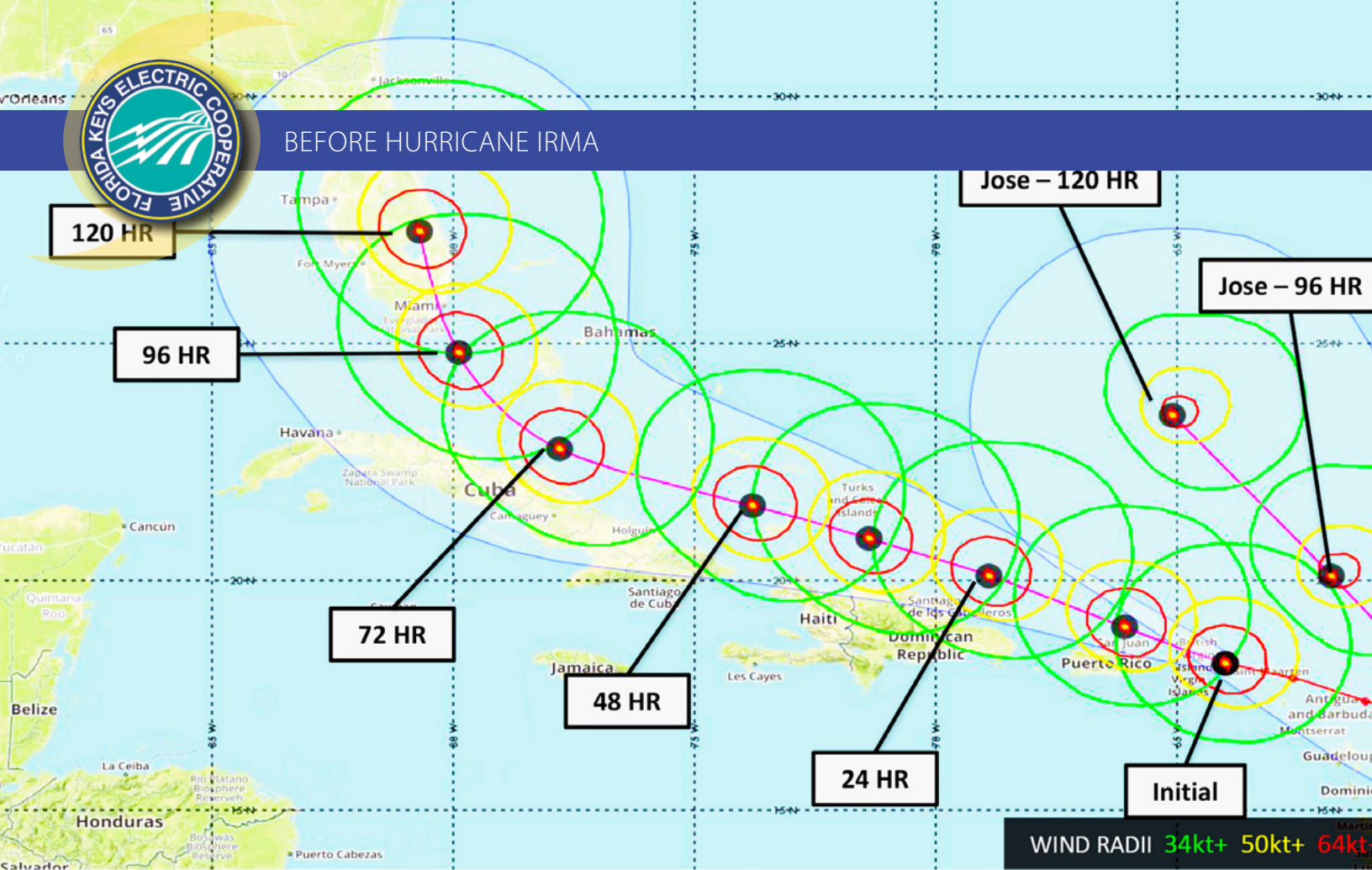
— Cris Beaty
FKEC CFO



Designed to meet the needs of FKEC and outside storm crews, FKEC’s commercial kitchen fed 250 people for several nights post-Irma.



BEFORE HURRICANE IRMA



Living in the Cone of Uncertainty

FKEC carefully tracks Hurricane Irma to make the best decisions based on the predicted path



It is rare to see no traffic on busy U.S. 1. The morning of Sept. 8, when CEO Scott Newberry came to the FKEC Tavernier facility, the road was deserted—a sign of how seriously Keys residents were taking Irma.

Photo by Scott Newberry

FKEC began tracking Hurricane Irma shortly after she formed off the coast of Africa and was merely Invest 93.

“There was just something about this storm that made the hair on the back of my neck stand up,” CEO Scott Newberry recalls.

By September 4, there was a high probability Hurricane Irma would impact the Florida Keys, the entire state of Florida, Georgia and the Carolinas.

As every utility in Florida prepared for the worst, FKEC management knew we could not wait until after impact from Irma to request outside aid. To ensure our cooperative would have guaranteed support, FKEC leadership made the decision on September 6 to secure outside crews and order the resources to house 300 workers and feed up to 400 people. This \$300,000 non-refundable commitment proved invaluable as FKEC would have everything needed within days of

Irma making landfall.

As we battened down the hatches here, outside assistance crews secured by FKEC began making their way to Florida from across the country. Some of the convoy settled in Daytona while Hurricane Irma passed over the Florida Keys.

When the county declared the mandatory evacuation for all residents, FKEC employees were encouraged to heed the warning and seek safe shelter. Ultimately, 83 of FKEC’s 115 employees evacuated.

FKEC offices were closed September 7. On Friday, September 8, the last of the FKEC fleet was secured in the Tavernier warehouse and work ceased as all emergency medical services were closed.

The following morning, 26 FKEC employees moved into our Tavernier and Marathon facilities to ride out the storm.

Hurricane Irma Timeline

Friday, Sept. 1—Management tells FKEC employees they believe Irma is a genuine threat and encourages everyone to prepare and finalize personal hurricane plans.

Monday, Sept. 4—FKEC determines we cannot depend on traditional cooperative mutual aid due to the strength of Irma and her projected path up the middle of Florida. We decide we must reserve outside contractors ahead of the storm as they will not be available after the storm hits Florida.

Tuesday, Sept. 5—FKEC makes preliminary contacts with contractors to determine the availability of power line construction and tree-trimming crews.

Wednesday, Sept. 6—FKEC authorizes Storm Services to mobilize base camp resources to house 300 and feed up to 400 people. This is a \$300,000 non-refundable commitment.

At 5 p.m., Monroe County declares a mandatory residential evacuation. FKEC does not require any employees to remain in the Keys after the mandatory evacuation.

Thursday, Sept. 7—FKEC business offices are closed. The co-op makes the final decision regarding the amount of outside resources needed for storm restoration.

At 7 p.m., the last hospital in FKEC's service territory closes and FKEC stops all work except for limited low-risk activities.

Friday, Sept. 8—FKEC executes pre-approved storm agreements with contract restoration crews, putting 40 distribution line crews, 5 transmission line crews, 20 tree-trimming crews and 12 damage assessment teams on the payroll. We also commit to full deployment of the Storm Services base camps.

All of the contracted assets begin to mobilize and head to safe staging areas in Florida. This was a daily six-figure commitment.

The last line vehicles are moved into the Tavernier and Marathon warehouses to protect them from the storm.

Eighty-three of FKEC's 115 employees evacuate.



Thanks to foresight in planning, FKEC safely housed bucket trucks and digger trucks, along with other vehicles and vital equipment and materials, in the reinforced warehouse at the Category 5-rated Tavernier facility.

Photo by Phil Guinta



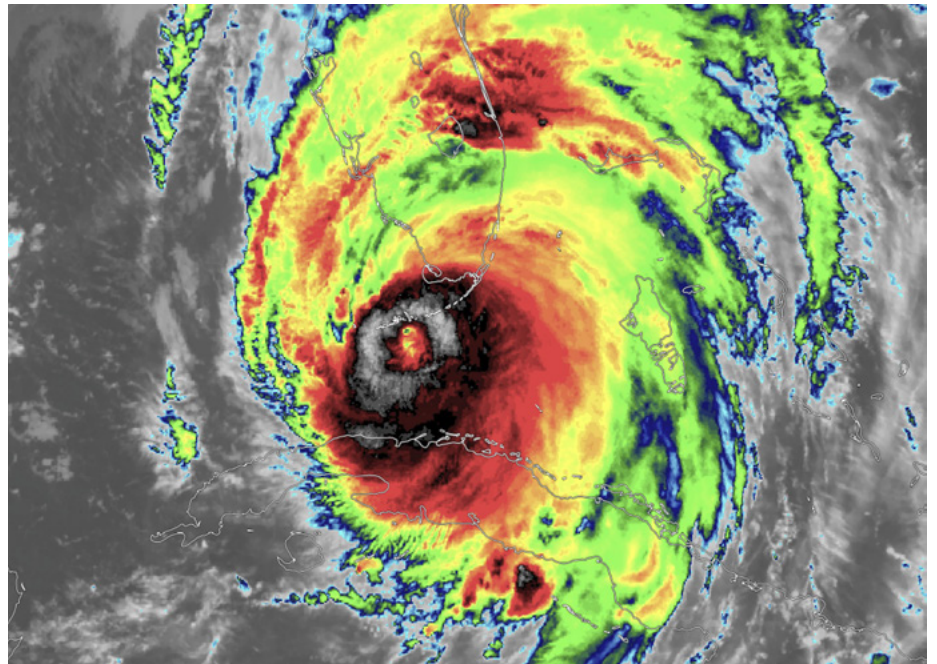
To keep everyone informed, FKEC held twice-daily employee meetings to address concerns, review restoration plans and expectations, and safety.

Photo by Nikki Dunn Cullen



Experiencing Hurricane Irma

Tavernier and Marathon experience sustained winds of 100 mph, with gusts of up to 115 mph



Employee Perspective



My experience while staying at the Tavernier Operations Center during Hurricane Irma was 100 percent positive. The employees and few family members all worked together to make our stay there as good as possible. As Irma made land, our building was a rock.

You couldn't hear or feel it in the building. On Monday, I sent out the message for all employees to return to work. The email was sent not 30 minutes before all communications were lost. There were two employee personal cellphones that continued to work—and one was mine. More people in Monroe County know my phone number now than I ever expected! Just another example of doing whatever was necessary to get the work done.

— Marie Braun
FKEC Operations Administrator

Florida Keys Electric Cooperative serves all of the Upper and Middle Keys, from the Monroe County line to the beginning of the Seven Mile Bridge. Although, the eye of Hurricane Irma made landfall on Cujoe Key, just south of our service territory, with wind gusts of 150 mph and a maximum storm surge reaching 10 feet, the Category 4 storm impacted all of the Florida Keys and FKEC's entire system.

Communications remained functional during the brunt of Irma, allowing CEO Scott Newberry to update employees on conditions and the status of our power system via email. To keep members informed, the co-op also continued updating its online media releases at the beginning and end of each day.

Newberry even posted a photo on social media of a very strong, very committed and most likely very scared iguana riding out the storm in a tree outside the Tavernier office.

Newberry's communication gave valuable insight from inside the "belly of the beast" and helped employees and members better prepare for what was to come after the hurricane passed.

At the Tavernier and Marathon offices, a handful of employees and their dependents settled in to ride out the storm. Throughout the day and night on Saturday and Sunday, everyone in-house pitched in to cook, serve and clean, and generally keep each other occupied.

At the Tavernier Operations Center, the Category 5 hurricane-rated building was a rock. All elements of the storm-strong facility performed above expectations. Employees safely hunkered down inside said you couldn't tell wind gusts of 150 mph were thrashing outside unless you looked out the window.

In Marathon, where the storm was much stronger, employees held tight. The area did lose water, electric and phones, but the employees and their families stayed safe. During the storm, the Marathon warehouse garage doors that faced directly into the storm did begin to bow in. Fortunately, the employees there combated the issue by backing trucks up against the doors, successfully protecting everyone, and all of the equipment and materials.



Irma rages outside FKEC's Category 5 hurricane-rated Tavernier Operations Center, while the building stands storm-strong. Twenty-six employees and dependents rode out the storm here and at the Marathon office.

Photo by Scott Newberry

Hurricane Irma Timeline

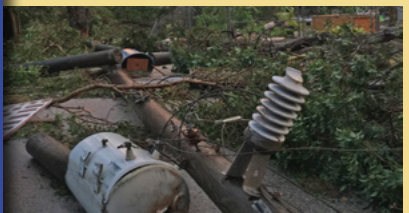
Saturday, Sept. 9—26 FKEC employees move into our Tavernier and Marathon facilities to ride out the storm. Six other employees stay at their homes.

At noon, tropical force winds begin hammering the entire Florida Keys.

Sunday, Sept. 10—Category 4 Hurricane Irma comes ashore in the Florida Keys sometime after midnight. The storm causes catastrophic damage throughout the entire island chain, with maximum winds reaching 115 mph in the Upper and Middle Keys. The highest elevation in the Keys is only 18 feet, with many populated areas below 6 feet. Storm surges exceeding 10 feet are experienced near the eyewall. Storm surges of 5 to 7 feet are common on the ocean side in most of FKEC's service territory. The heaviest damage is in the Marathon, Big Pine and Sugarloaf areas.

At 8 a.m., while hurricane force winds continue to impact FKEC's entire service territory, our outage management system shows 25 percent of our power system still has power, including the Tavernier Operations Center.

Contractor assets from Missouri, Arkansas, Alabama, Georgia, Wisconsin, Kentucky and North Carolina reach safe staging areas in Florida. Storm Services base camp resources stage at the race track in Daytona.



At 3 p.m., preliminary survey teams venture out while tropical storm gusts still whip the area.

Photo by Brain Tiedemann

Transmission service from FPL to FKEC's Tavernier Substation remains intact. An estimated 90 percent (28,000 meters) of our members are without power.

Sunday afternoon, our power load is about 5 megawatts as compared to a typical 120 MW.

Insight from Inside Irma

Sunday, September 10 at 3:30 p.m. CEO Scott Newberry reports:

The wind is still blowing strong and the rain continues. Our electrical status remains the same. Transmission is up all the way to Tavernier: 27,000 of our accounts are without power. Power is out completely from Snake Creek through Key West.

The bulk of the assistance we requested is at or almost to Daytona Speedway. By Tuesday at the latest, we expect that assistance will be staged at Homestead Speedway. Their arrival into the Keys will be decided when the road is deemed safe for travel. They will be given priority access.

We hope to be able to start our preliminary damage assessments tomorrow morning. It doesn't appear Irma will calm down enough before nightfall to allow for it today. We still have a helicopter scheduled for tomorrow if conditions allow it to fly down here. We will use it to conduct a high-level damage assessment and also to check on our Marathon office and people.

Besides our problems, there is no water service from Snake Creek through Key West. We still have internet and cellphone service in the Upper Keys. There is no cellphone, land line telephone or internet service from at least Marathon through Key West. There is essentially no communication other than satellite telephone in the Middle and Lower Keys. We currently have no communication with our Marathon office.

We do not know when residents will be allowed back into the Keys. The situation is very fluid and no decisions about re-entry have been made by emergency operations officials.

As I re-read this before I send it, I find it nearly incomprehensible that I've had to write it. I think we will all face many long days ahead as we work to rebuild our system and our islands. There will be stories of tragedy and of hope, and most of all, I'm sure, stories of compassion as we all help each other recover from this historic storm.

Please take care.



Less than 12 hours after Hurricane Irma crossed over the Florida Keys, FKEC CEO Scott Newberry boarded a helicopter to survey the extent of damage to our power system. The inspection revealed our work to build a storm-strong power system had paid off. The backbone of our system was intact.

Photo by Scott Newberry



It's a New Dawn, It's a New Day

At daybreak on Monday, September 11, less than 12 hours after Irma made landfall, the 32 co-op employees who had not evacuated began performing low-risk activities allowed prior to trauma care opening.

A message was also sent to all co-op employees requesting they return to work. While the co-op urged employees to heed the county's mandatory evacuation order, the company also asked each person to be prepared to return as soon as conditions would allow—and FKEC employees did just that. In many cases, this meant leaving loved ones behind, because only emergency workers with county credentials could return in the immediate days after the storm.

Shortly after the message was sent asking all FKEC employees to return to work, all communications were lost. ATT, Verizon and Comcast services (cellphone, landline and internet service) ceased

working, and remained mostly unavailable for several days. FKEC's Motorola radio system performed well. Satellite internet is limited, and satellite phones were ineffective. FKEC employees with Sprint cellphones temporarily donated their use to the restoration effort.

On the day after impact, CEO Scott Newberry boarded a helicopter to survey our power system. With all communication to Marathon and further south out, it was unknown what he would find. By mid-morning—less than 12 hours after Irma crossed our chain of islands—he returned with good news: The backbone of our power system withstood Irma's impact very well.

Our storm-hardened main transmission system never lost power from the mainland to our Tavernier Substation, and it was ready to be energized all the way to Marathon less than 18 hours after Irma made landfall.

Our primary distribution system also

suffered far less damage than expected. Even in Marathon—where the northeast quadrant of the eye wall churned for several hours—our distribution poles stood strong.

This meant FKEC's work to build a storm-strong system had paid off. Our infrastructure was intact, giving us a head start on power restoration.

The following day, when temporary trauma care was established prior to the hospital's reopening, FKEC employees began restoring critical loads and repairing main line distribution. By the end of the day, about 75 percent of our main line distribution feeders were partially or completely restored by FKEC's own crews.

Also, Storm Services and outside assistance crews had been mobilized prior to the storm. By September 13—72 hours after Irma's impact—all the resources necessary to restore power and house and feed the crews would arrive.

Hurricane Irma Timeline

Monday, Sept. 11—At day break, FKEC's 32 employees who did not evacuate begin doing low-risk activities.

At 8:30 a.m., ATT, Verizon and Comcast services (cellphone, landline and internet service) cease working, and remain mostly unavailable for several days. FKEC's Motorola radio system performs well. Satellite internet is limited, and satellite phones are ineffective. FKEC employees with Sprint cellphones temporarily donate their use.

By mid-day, a helicopter flyover reveals all of FKEC's transmission structures and substations are intact. Distribution damage is less than anticipated.

The location of our two base camps are secured: Founders Park in Islamorada and FKEC's Marathon Operations Center. The Marathon Airport grounds are used for truck parking and pole staging for work in the Marathon area.

Evacuated employees began returning to duty.



In the immediate days after Irma, FKEC feeds 250+ employees and contractor workers at the Tavernier Operations Center.

Photo by Scott Newberry

By 5 p.m., transmission service to all six FKEC substations is restored as well as all power to all substation distribution breakers.

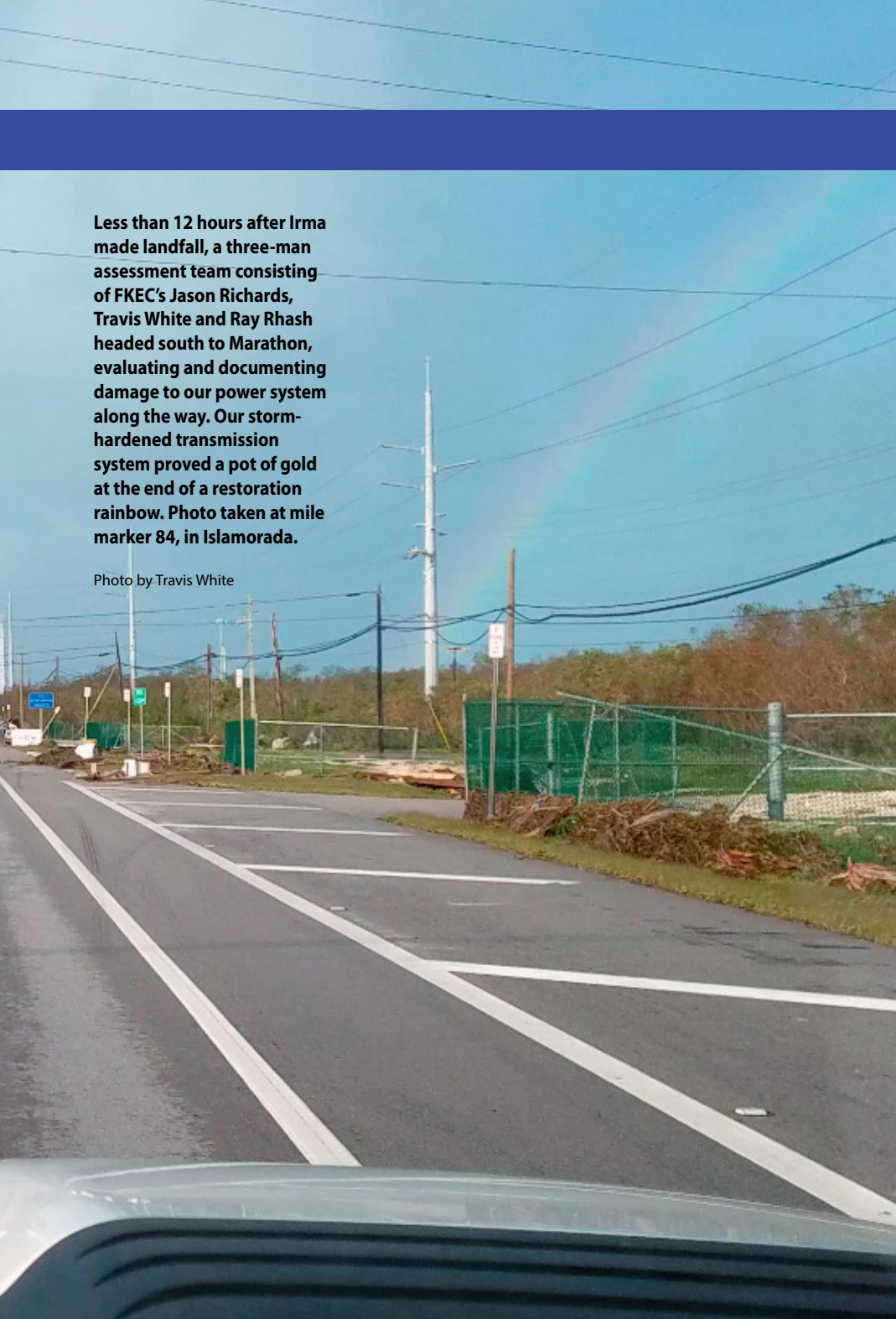
Tuesday, Sept. 12—Temporary trauma care is restored prior to the hospital's reopening. This allows full restoration efforts to begin. FKEC crews begin restoring critical loads and repairing main line distribution.

The Storm Services base camp resources and many of the contract crews begin arriving.

By end of the day, approximately 75 percent of our main line distribution feeders are partially, if not completely, restored by FKEC crews.

Less than 12 hours after Irma made landfall, a three-man assessment team consisting of FKEC's Jason Richards, Travis White and Ray Rhash headed south to Marathon, evaluating and documenting damage to our power system along the way. Our storm-hardened transmission system proved a pot of gold at the end of a restoration rainbow. Photo taken at mile marker 84, in Islamorada.

Photo by Travis White



Jason Richards (center) takes contract crews to do work on water crossing transmission poles.

Employee Perspective

After the winds subsided, those of us who stayed at the co-op offices were anxious to get to work. As soon as the boss let us, we started to survey our power system, and with the availability of emergency responders, we could do some light work. It was amazing to see how the community immediately came together. I'll never forget all the people who were so willing to share resources and manpower to get restoration started ASAP.

— Jason Richards, FKEC Forester



Turning Plans into Actions

FKEC employees and outside assistance crews combine for a workforce of 450 people

In the immediate days after Irma made landfall, FKEC employees who had evacuated rushed back to work and the outside assistance secured prior to the storm rolled in.

By the evening of Wednesday, September 13, FKEC's restoration workforce surged from the 32 FKEC employees Monday morning to more than 450 FKEC and contract workers.

Prior to beginning work, all contract crews received an extensive safety briefing identifying hazards, an overview of the FKEC power system and a detailed explanation of the work plan.

The base camps were also fully operational and outside crews settled to prepare for the hard work ahead.



The outside contractors arriving multiply FKEC's utility restoration construction workforce tenfold.

Photo by Scott Newberry

To house these crews, FKEC establishes storm restoration base camps in Islamorada and Marathon. Each site serves approximately 150 people and includes an air-conditioned cafeteria tent, sleep trailers and shower facilities.

Photo by Doug Finger Photography



Hurricane Irma Timeline

FKEC lineman Rudy Vega (in the bucket) works with crews from utility contractor Michels to restring wire.

Photo by Nikki Dunn Cullen



Wednesday, Sept. 13—Contract crews arrive, increasing FKEC's workforce from the 32 FKEC employees Monday morning to more than 450 FKEC and contract workers.

FKEC crews are dismantled and assigned contractor crew liaison duties. Work teams made up of an FKEC journeyman lineman, 2 to 4 contractor construction crews, 1 to 2 tree trimming crews and a damage assessment team are assigned to a specific feeder.

An FKEC office employee is assigned to each work team to assist with photos and other documentation.

Base camps with kitchens, dining tents, laundry, showers and sleep trailers are established at Founders Park and Marathon to fully support 150 workers and feed 200 workers at each location.



After working from sunup to sundown, FKEC employees and contract workers enjoy a prime rib dinner at the Islamorada base camp.

Photo by Doug Finger Photography

More than 50 Asplundh crew members joined FKEC tree crews to clear power lines.

Photo by Marie Braun



Fuel and material deliveries from the mainland are delayed due to shortages and traffic congestion. These delays continue for several more days.

Thursday, Sept. 14—FKEC's post-hurricane restoration plan is in full swing, with a workforce of 450 co-op and contract workers in the field.

By the end of the day, 40 percent of FKEC's power system is energized.



FKEC linemen Travis White, in the bucket, and Joe Zajac, on the ground, work in Marathon to restore power to homes able to safely receive service.

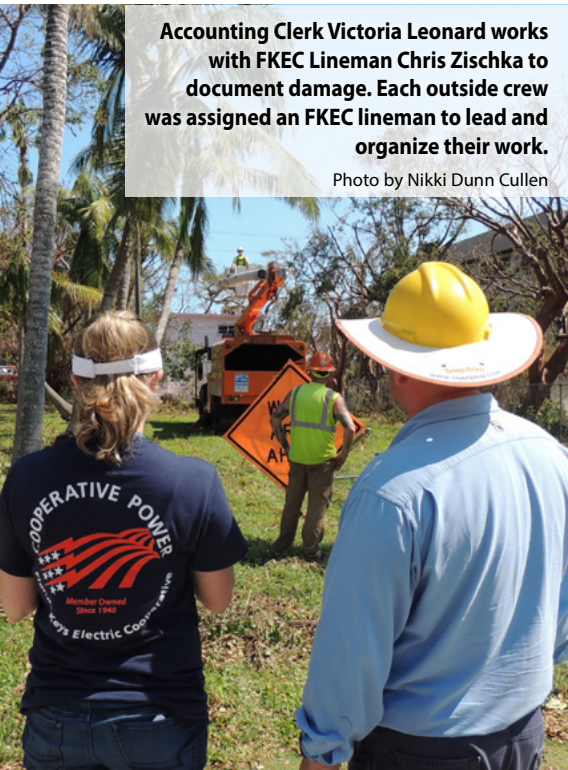
Photo contributed

Repair, Restore, Repeat, Complete

FKEC storm restoration work is done from dawn till dusk for 10 days straight

Accounting Clerk Victoria Leonard works with FKEC Lineman Chris Zischka to document damage. Each outside crew was assigned an FKEC lineman to lead and organize their work.

Photo by Nikki Dunn Cullen



Following Irma, 20 storm restoration crews were deployed in the Upper Keys and 20 in the Middle Keys, and 20-plus tree-trimming crews cleared lines throughout our service territory.

All storm restoration field crews and personnel from FKEC’s warehouse, fleet maintenance and other departments worked from sunrise to sunset or even later, seven days a week, until our entire system was energized.

To get the work done, teams were formed with a combination of FKEC personnel and outside assistance crews. An FKEC journeyman lineman was assigned to head each team and was paired with an office employee, who assisted with photos and other documentation. Each team consisted of two to four contractor line crews and two tree-trimming crews. Damage assessment teams were also out evaluating the entire system to prioritize work.

To distribute our storm restoration work equally throughout the Upper and Middle Keys, each of the 60-plus crews was assigned a zone or portion of our power system. The crews remained in their zone until every member whose home was deemed safe had electric service.

First, the crews worked to restore power to the largest number of people. This meant addressing any transmission issues, then repairing main distribution feeder lines, which generally run along U.S. 1 and deliver power from our substations to neighborhoods. Following storm restoration to the feeders, the crews moved down the side streets, restoring power throughout neighborhoods.

Thanks to the dedicated and tireless work of everyone, only a week after storm restoration work began, crews were able to transition from focusing on large outages to isolated individual outages.

Hurricane Irma Timeline

Friday, Sept. 15–

Tuesday, Sept. 19—Work continues methodically, from dusk to dawn, day after day, as work teams are reassigned and combined as needed.



At 5 a.m. in Marathon, a chain of supplies keeps flowing. Transformers arrive to be installed to bring power back to streets and individual homes.

Photo by Darrell Birkhimer

Linemen from Michels Line Construction Contractor, led by FKEC Lineman Robert Lovell—standing in the boat—make a repair on a 120-foot-tall transmission pole at the Indian Key Fill water crossing.

Photo by Doug Finger Photography



Employee Perspective

"It was an amazing experience to be out in the field with the crews restoring power to the community. Not only was it amazing to watch the crews at work, it made me appreciate the hard work they put in, day after day. The days were long and very hot, but I walked away with a greater sense of community having worked side by side with my team. It was such a rewarding experience. I'm so proud I was able to be a part of."

— **Victoria Leonard, Accounts Payable**

By the end of the day September 19, FKEC estimates that 98 percent of our members able to receive power have power.

Wednesday, Sept. 20–

Saturday, Sept. 23—The first round of contractor crews are released on Wednesday. Work teams are broken up as we transition to mostly service work.

At this time, approximately 2,000 of our members are not able to receive power.

On Thursday, Sept. 21, crews resume responding to reported outages 24 hours a day.

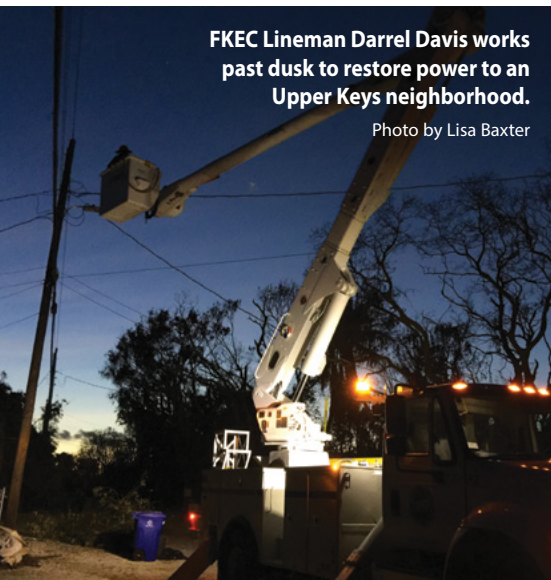
On Saturday, Sept. 23, FKEC uses one of the power line construction companies for a full day building new lines to establish service for the temporary hospital unit deployed at Fisherman's Hospital in Marathon.

Saturday, Sept. 23—100 percent of FKEC members able to receive power have power.

The base camps are demobilized after breakfast, and the majority of the contract construction crew are released. About five crews are held beyond Saturday for a few days to help with mop up activities. They are housed at local hotels and eat at local restaurants.

FKEC Lineman Darrel Davis works past dusk to restore power to an Upper Keys neighborhood.

Photo by Lisa Baxter



After 10 long days of work, FKEC's Walt Stephens, in the truck, says goodbye and expresses the co-op's appreciation to outside assistance crews.

Photo by Marie Bruan



All Hands On Deck

As soon as conditions allowed, your dedicated FKEC personnel showed up for work—but not for a normal day at the office. Every employee was tasked with work relevant to storm restoration. People who normally work in billing or the mailroom were pulled to do everything from documenting damage to assembling equipment. It was all hands on deck, with the focus being on restoring power to every FKEC member.



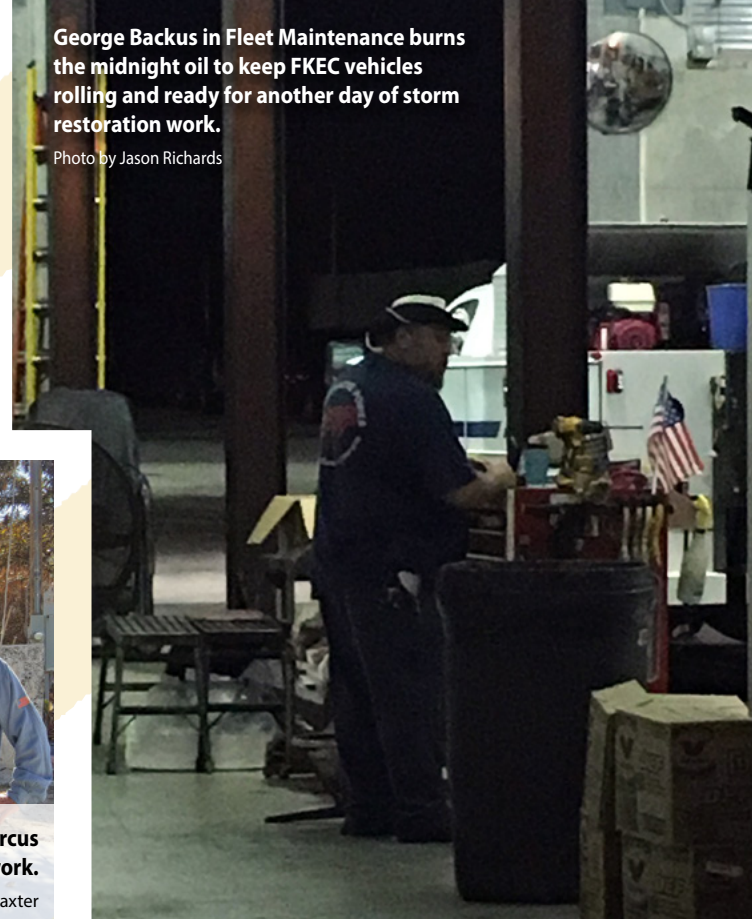
FKEC office personnel Shawn Dudley and Brooke Cash assemble grounds in the Tavernier warehouse.

Photo by Nicole Kraus



Beth Rains cross checks outages reported by assessment teams with the outage management system.

Photo by Nikki Dunn Cullen



George Backus in Fleet Maintenance burns the midnight oil to keep FKEC vehicles rolling and ready for another day of storm restoration work.

Photo by Jason Richards



From left, FKEC's David Bogue, Isaiah Leake, Tommy Sawyer, Marcus Martin and Darrell Davis start another day of storm restoration work.

Photo by Lisa Baxter

Final Restoration Numbers

Wednesday, Sept. 13 —
40% of FKEC power system is energized

Thursday, Sept. 14 —
70% of FKEC power system is energized

Sunday, Sept. 17 —
80% of FKEC power system is energized

Tuesday, Sept. 19 —
98% of FKEC power system is energized

Saturday, Sept. 23 —
100% of FKEC members able to receive power have power

**All work done with
NO lost-time accidents**



FKEC Meterman Dan Raber assists with restoration work.

Photo by Nikki Dunn Cullen

Clockwise from left, FKEC's Don Bell, Rob Christensen and Joe Zajac work to restore power in Marathon.

Photo by Sara Matthis/KeysWeekly

FKEC Billing Operator Vickie Jorgensen, center, admires the restoration work being done with contract crews.

Photo by Chris Zischka



The sign outside the Marathon substation took a beating, but the facility stood storm strong, and was fully functional less than 12 hours after impact.

Photo by Jason Richards

Storm Repairs

0 transmission poles replaced
100 transmission poles repaired
(Out of 100 miles of transmission line)

175 distribution poles replaced
1,200 distribution poles repaired
(Out of 734.2 miles of distribution line)

12 spans of conductor repaired over water crossings
(Out of 11 miles over water)

1,000 services replaced
(Out of FKEC's 32,000+ services)

3 Substations never lost service
All 6 were restored in less than 12 hours



Crews from Storm Services Engineering remove a broken pole at The Reef Resort in Marathon.

Photo by Vyviana Rapozo



Another day, another transformer installation.

Photo by Doug Finger Photography

Working Together

We couldn't have done it without your help

Before Hurricane Irma hit the Florida Keys, 350 skilled utility professionals began making their way from all across the country to help restore power to our 32,000+ co-op accounts. These crews worked alongside our co-op employees in the soaring September heat to restore power to our community as if it were their own.

Storm Services, a utility storm restoration support company, did exemplary work organizing and caring for the utility crews who came to help. All of the skilled professionals brought experience and positive attitudes to each of the 10 days they worked side by side with our FKEC employees.



Outside assistance and FKEC crewmen work together

Photo by Lisa Baxter

Outside Restoration Workforce



A crewman from Michel's Utility Contractor meets some of our resilient FKEC members.

Photo by Doug Finger Photography



An outside assistance utility crewman calls home after a long day working to restore power to FKEC members.

Photo by Doug Finger Photography

Distribution line constructions —
45 crews (225 workers)

Transmission line construction —
5 crews (40 workers)

Tree crews —
20 crews (57 workers)

Damage assessment teams
12 crews (24 workers)

Two worker base camps
2 crews (30 workers)



Outside Insight

We were honored to assist FKEC during their time of need after Hurricane Irma. The professionalism displayed by the co-op's line crews and employees was top-notch. The acts of appreciation and sincere acts of kindness by the co-op's members gave our men an extra boost in our efforts to restore service to those impacted.

— Peyton Duncan, lineman
Arkansas Electric Cooperatives Inc. of Little Rock

Working among the storm debris.
Photo by Doug Finger Photography



Outside Crews Provided by:

Michels —
Line construction contractor based in Wisconsin

Davis H. Elliot Company, Inc. —
Line construction contractor based in Kentucky

Asplundh Tree Expert, LLC —
Line clearance contractor based in Pennsylvania

Storms Services Engineering, LLC —
Line design and construction contractor based in Georgia

Arkansas Electric Cooperatives, Inc.
Line construction contractor based in Arkansas



Thank You for Your Gratitude

To you, our resilient members of Florida Keys Electric Cooperative

FKEC is proud to be the hometown electric co-op serving our resilient communities in the Upper and Middle Keys. You, our members, are why we work so hard during even the most trying of times.

Your words of encouragement and praise in the long days after Hurricane Irma kept us focused on the importance of the storm restoration work and helped keep us going despite being tired.

We greatly appreciate all the thank you messages sent via social media, emails and in the mail. Your kind words, friendly smiles and waves to our employees in the field made the 15-hour days in 90-plus degree heat more bearable, and gave purpose to our work.

To assist our Upper and Middle Keys residents with their post-Irma recovery, FKEC gave all residential and general service account members a \$15 credit on their October electric bill. The FKEC Board of Directors approved the bill credit, not only as an acknowledgment that our members were without power for a short period of time, but also as a way to thank them for their patience and support during our restoration process.

As a co-op, FKEC is owned by you, the members, and our employees are also our members. This structure unites us with a special sense of service and camaraderie that is held with high value at FKEC. Thank you for being a positive part of the restoration process.

Dear FKEC,
Thank you for your service during this devastating period of time. We appreciate all your hard work and the sacrifices you took to rebuild our community most of all, putting our safety before yours.
Sincerely,
Lucia R + Alexis M

Dear FKEC,
Thank you for taking your time to get our electric back. We appreciate what you did for us after the storm. Because of you we now have electric!
Sincerely,
Alyssa Webb + Sammie Simon

While doing storm restoration work, FKEC Lineman Dale Ratza gets a pat on the back from a gracious co-op member.

Photo by Jason Koler/KeysWeekly



During another long day of storm restoration repairs on Sept. 22, FKEC lineman Rob Christensen, left, and Mike Black, right, take a moment from their work to accept a special thank you from Governor Rick Scott.



Social Media Thank-Yous

Your job is never thought of until there is no power. Yours is a very dangerous one and we salute you for all you have done in making Marathon and the Keys great again!
Theresa

Thank you to ALL the hard working people who are putting us back on the grid. I really appreciate your dedication and efforts to restore the Keys!
Betsy

Absolutely incredible job you guys are doing!!!! Thank you so much!
Janet



The support of the FKEC members during our tireless storm restoration work fed our morale, and our many generous community members and local businesses at times also fed our bellies.

Photo by Doug Finger Photography

Thank you so much!! We have power back. You guys rock!

Brenda

Thank you for the update and for your continued quick responses and all the efforts being made to get everyone back online and get close to normal life again!

Pam

Thank you so much! You guys are always working hard for the community! We appreciate all that you do!!

Michell



Member Perspective

The men and women at Florida Keys Electric Cooperative did an amazing job responding to Hurricane Irma. They worked efficiently and safely under the worst of circumstances to restore power and get our community back to a semblance of normalcy as quickly as possible. It is because of their dedication and diligence that we exceeded all expectations in restoring service to even our hardest hit areas.

— Holly Raschein, State Representative



From left, FKEC Board of Directors Mike Puto, George Hertel, Karl Wagner, Cale Smith, Dr. James Boilini, Gretchen Holland, Craig Belcher, Joe Roth and David Ritz.

Photo by Nikki Dunn Cullen

Sharing Thanks and Appreciation

The FKEC Board of Directors recognizes and commends CEO Scott Newberry and the entire staff of FKEC. We extend our sincerest thanks to everyone involved for his or her exceptionally hard work and outstanding efforts, as this monumental restoration effort would never have been possible without each of you.

— Dr. James Boilini,
FKEC Board President

To serve as a reminder of the Irma restoration, each employee signed his or her name on two sets of hurricane flags. One set will be hung at the Tavernier office and the other in Marathon.

As representatives of our community, and as members themselves, each FKEC director sincerely thanks every individual named on those hurricane flags for dedicating themselves to quickly and efficiently restoring power to our members in the Upper and Middle Keys.

FKEC's employees rose to the occasion before, during and after Hurricane Irma, sacrificing their time at home to put the overall needs of our community first. FKEC's leadership and management team, must also be recognized for formulating and implementing the cooperative's hurricane preparedness plan.

Appreciation must also go to the employees' families who lent their loved ones and supported their work and this

cooperative during a highly stressful time. This thank you extends to the families of the outside assistance crews that traveled thousands of miles to work with us.

FKEC also expresses sincere gratitude to the companies, crews and support staff we brought into help with restoration. Michels from Wisconsin and Arkansas Electric Cooperatives and Storm Services all delivered the professional, efficient and diligent services the job required. They brought experience and positive attitudes to every day of the 10 days they worked to restore power to our members.

The cooperative's nine board of directors who you have elected to represent your interests have done that well. Their support and allocation of funds over the years to build a storm-strong system proved successful. While no power system can withstand "the big one" with no outages, our transmission and distribution system did very well.

Thank You FKEC

“Florida Keys’ electric workers have done exceptional work, especially last year after Hurricane Irma’s 130 mile-per-hour winds and 12-foot storm surge left catastrophic damage across the Lower and Middle Keys. I’m thankful for Florida Keys Electric Cooperative’s dedication to our community and look forward to continuing to support their efforts in the future.”

— Carlos Curbelo
Florida Congressman

“Hurricane Irma really did a number on Monroe County, and Florida Keys Electric Cooperative’s swift hard work helped our beloved Florida Keys rebuild and recover quicker. Their steadfast commitment after the storm was second to none, and should be commended for their efficiency.”

— Anitere Flores, Senator

FKEC’s performance during Hurricane Irma was a true example of teamwork in the face of adversity. It started with our board’s long-term commitment to storm hardening, continued with our management team’s planning and resource decisions, then culminated with the dedication, commitment and sacrifice of each and every FKEC employee.

— John Stuart
FKEC COO

Unless otherwise noted, writing and design
by Nikki Dunn Cullen • news@fkec.com
Editing and timeline by John Stuart.



I give our FKEC employees, who dedicated themselves whole-heartedly to restoring power, my sincere gratitude. It was truly amazing watching them jump into roles outside of their normal duties and work tirelessly away from their families and their homes to get the job done.

— Scott Newberry
FKEC CEO

Your FKEC Team:

The People Behind the Power

As Hurricane Irma approached, FKEC urged employees to heed the county’s mandatory evacuation order, but the company also asked each person to return as soon as conditions would allow—and FKEC employees did just that. In many cases, this meant leaving loved ones behind, because only emergency workers with county credentials could return in the immediate days after the storm. This also meant spending their days working from sunrise to sunset, instead of addressing storm damage at their own homes, or helping with the struggles their families or friends were facing.

Listed are the men and women of Florida Keys Electric Cooperative who each put the needs of our members before their own, and returned to work to restore power to our communities following Irma’s wrath.

- | | | | | |
|---------------------------|--------------------------|--------------------------|-------------------------|-------------------------|
| Peter Amendola | Brandon Coile | Maria Jones | Lucy Miranda | Howard Sanders |
| Tom Anthony | Nikki Dunn Cullen | Vickie Jorgensen | Yamile Moreira | Tommy Sawyer |
| Ashley Arrabal | Darrell Davis | Joe Joyce | Juan Moreno | Kevin Setchell |
| George Backhus | Dave DiMaggio | Susan Kohlhofer | Amber Navarrete | Scott Sheffield |
| Jennifer Bailey | Shawn Dudley | Nicole Kraus | Scott Newberry | Joe Sheriff |
| Don Barton | Eddie Dudley | Keith Kropf | Jim Nichols | Clay Smith |
| Andy Baxter | Tom Eckhardt | Ryan Lachowicz | Erin Ornelas | George Smith |
| Lisa Baxter | Josh Ellsworth | Scott LaFreniere | Veronica Ornelas | Aivie Sorknes |
| Cris Beaty | Brandon Finch | Isaiah Leake | Blane Parker | Walt Stephens |
| Don Bell | Hermes Garcia | Bill Lee | T.J. Patterson | John Stuart |
| Janiene Bennett | Billy Goodwin | Victoria Leonard | Van Philpot | Brian Tiedemann |
| Jerry Betancourt | Phil Guinta | Bernie Lietaert | Tamie Piekarski | Mike Valles |
| Darrell Birkhimer | Sara Hamilton | Lowell Locke | Adam Pierce | Rudy Vega |
| Mike Black | Keith Hargrove | Robert Lovell | Dan Raber | Hector Vivanco |
| David Bogue | Will Heaton | Suzanne Lovell | Craig Rabito | Chris Walker |
| Marie Braun | Jason Heller | Nick Lyons | Dave Ragland | Mark Weeks |
| Sheri Bulkiewicz | Doug Henslee | Marcus Martin | Beth Raines | Travis White |
| Andy Burdick | Steve Horne | Cheryl Massey | Vyviana Rapozo | Tommy White |
| Brooke Cash | Charlie Hughes | Sean McMahon | Dale Ratza | Rory White |
| Juan Castano | Jordan Izaguirre | Paulette McNamara | Jody Ratza | Phyllis Williams |
| Luis Chavala | Mike James | Rafael Medina | Ray Rhash | Joe Zajac |
| Robert Christensen | Mike Jenkins | Scott Meiner | Jason Richards | Chris Zischka |
| Sharon Claude | Kim Jones | George Mirabella | Mike Roberts | Tim Zuccaro |