

**POWER RESTORATION AND THE
MIAMI-DADE COUNTY
RECOVERY OPERATIONS CENTER**

10th Annual Energy Services Coalition (ESC)
Market Transformation Conference

INTRODUCTION

This presentation will address the following:

- Overview of the Miami-Dade County (MDC) Electrical Power System
- MDC Emergency Support Function (ESF) 12 (Energy) Annex
- Hurricane Irma Response and Recovery
- Power Restoration Improvements
- Miami-Dade Recovery Operations Center

COUNTY ELECTRICAL POWER SYSTEMS

Miami-Dade County relies on numerous utilities to produce and distribute power throughout the County:

- Florida Power and Light (FPL) is the primary electrical power utility in Miami-Dade County and the largest in Florida.
- The Turkey Point Nuclear Power Plant is the County's top energy producer ... which provides 1,600 million watts of electricity annually for the County.
- Homestead Public Services provides electrical power to the City of Homestead.

ESF 12 (ENERGY)

Purpose

- Coordinates and facilitates all efforts to minimize the interruption of supply and delivery of energy resources to Miami-Dade County.

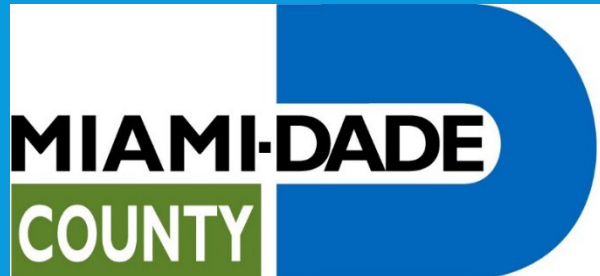
Scope

- ESF 12 is responsible for ensuring the continuation of energy services during a disaster event.
 - Energy services are divided into two sectors, which are:
 - electrical and natural gas.

ESF 12 (ENERGY) (CONT.)

Miami-Dade County Office of Emergency Management (OEM)

- Coordinate activities of the sector leads for ESF 12.
- Gathers and disseminates pertinent information to the support agencies and other relevant partners.
- Coordinate with the County's energy providers in sharing and collaborating in the maintenance of critical infrastructure customer lists.



ESF 12 (ENERGY) (CONT.)

Florida Power & Light (FPL)

- Serves as lead agency for the electrical power sector and provides a representative when the County EOC is activated.
- Compiles and submits the Miami-Dade County Critical Facility Power Restoration List annually to OEM.
- Coordinate restoration efforts with partner agencies, relevant departments, and ESFs operating through the EOC.



ESF 12 (ENERGY) (CONT.)

Homestead Public Services



- Serves as lead agency for the electrical power sector in the City of Homestead.
- Provide updates to the EOC during activations through their Divisional EOC representative on restoration times and any issues.
- Coordinate restoration efforts with partner agencies, relevant departments, and ESFs operating through the EOC.

ESF 12 (ENERGY) (CONT.)

Response Activities

- Implement protective measures for facilities/infrastructure.
- Activate Command Centers and/or send personnel to the EOC to support ESF 12 functions.
- If necessary, activate relevant Emergency Contracts and Mutual Aid Agreements with other utility providers to ensure adequate resources to expedite utility restoration.
- Provide information to the EOC on outages and critical facilities that may have been impacted.
- Conduct damage assessments following the disaster to determine level of damage to power capability and distribution systems.

HURRICANE IRMA OVERVIEW

- On August 30, 2017, Tropical Storm Irma formed off the West coast of Africa and became the 9th named storm of the 2017 hurricane season.
- The storm intensified rapidly, ultimately forming into a powerful Category 5 hurricane with 185 mph winds.
- On September 5th, County Mayor Giménez issued a Local State of Emergency for Miami-Dade County activating the EOC to support public protective actions.



HURRICANE IRMA OVERVIEW (CONT.)

- Hurricane Irma regained strength traveling towards the Florida Keys & made landfall (Sept. 10) as a Category 4 hurricane with 130 mph winds.
- Irma was a Category 3 hurricane with 115 mph winds when it reached Marco Island (Collier County) & further decreased as it traveled north.
- Miami-Dade County was spared Hurricane Irma's full force whereby experiencing tropical storm force winds and wind gusts of 80-100 mph.
- The wind, storm surge, and rain from Irma caused flooding, brought down countless trees & power lines, and widespread power outages.
- President Trump approved a Major Disaster Declaration for nine Florida counties which included Miami-Dade County.

HURRICANE IRMA OVERVIEW (CONT.)

- On September 10, 2017, *80% of Miami-Dade County was without power but, by September 18th, 96.5% of the County had been restored.



***888,530 accounts**

HURRICANE IRMA OVERVIEW (CONT.)

- Miami-Dade coordinated recovery efforts via a virtual Recovery Operations Center (ROC), led by a representative from the Office of the Mayor.
- The ROC activated to a Level 1 on Monday, September 25, 2017, with the following Recovery Support Functions (RSFs): Economic, Finance, Housing, Mitigation, Infrastructure, Social Services, Public Information/Outreach, and Intergovernmental.
- The ROC deactivated by January 19, 2018.

POWER RESTORATION IMPROVEMENTS

FPL Infrastructure Improvements

- Before Hurricane Irma, FPL had invested nearly \$3 billion to make the energy grid smarter, stronger and more storm-resilient.
- During Irma, no hardened transmission structures were lost. All FPL substations were up and running within a day following Irma.
- FPL only lost a fraction of its poles during Irma (estimated 0.2% or 2,500 downed poles).



POWER RESTORATION STRATEGY

- Prior to Hurricane Irma, FPL prepared a list of critical infrastructure that was shared with the County.
- In 2018 the County created the *Critical Facility Power Restoration Strategy*, and the list was incorporated into ESF 12 (Energy) Annex.
- This strategy includes two tiers of facilities, they are:
 - ❖ Critical Infrastructure Function (CIF): Facilities that have a direct effect on public health, safety, welfare and/or security ... which encompasses 20% of the feeders in the County.
 - ❖ Infrastructure Function (IF): Facilities that have an indirect effect on either public health, safety, welfare and/or security for the County.

POWER RESTORATION STRATEGY (CONT.)

CIF List Categories include

- Hospitals and Acute Healthcare Facilities: County hospitals, Ambulatory Surgical Center, Nursing Homes and Assisted Living Facilities.
- Public Safety Answering Points and Emergency Dispatch Centers
- Emergency Operations Centers (EOC): County's primary and secondary EOCs and the Municipal Divisional and Satellite EOCs.
- Medical Evacuation Centers (MEC): 6 MECs



POWER RESTORATION STRATEGY (CONT.)

CIF List Categories (cont.)

- Water Treatment Plants and Regional Booster Pump Stations
- Critical Well Fields
- Sewage Treatment Plant and Regional Waste-Water Booster Pump Stations
- 800 MHZ Radio and Private Cellular Towers



POWER RESTORATION STRATEGY (CONT.)

CIF List Categories (cont.)

- Other Critical Government Facilities:
 - ❖ Information technology support facilities (data centers, etc.)
 - ❖ National security and military facilities
 - ❖ Correctional facilities (County and State)
 - ❖ Transportation facilities (mass transit, airport, ports, etc)
 - ❖ Priority Police Stations (Headquarters & priority substations)

POWER RESTORATION STRATEGY (CONT.)

Infrastructure Function (IF) List Categories

- Fire Stations (Command Hubs)
- Radio and Television Stations
- Private Sector Broadcasting Transmitters
- Main Telephone Facilities
- Telecommunication Facilities
- Gas Supply Pipelines
- Gas Stations

POWER RESTORATION STRATEGY (CONT.)

Infrastructure Function List Categories (cont.)

- Grocery Stores
- Pharmacies
- Hospices
- Blood Banks
- Nursing Homes
- Assisted Living Facilities
- Dialysis Centers
- Public, Private and Charter Schools
- Universities/Colleges



POWER RESTORATION STRATEGY (CONT.)

Infrastructure Function List Categories (cont.)

- Non-critical government facilities:
 - ❖ Domestic Violence Shelters
 - ❖ Support facilities (warehouses, etc)



RECOVERY OPERATIONS CENTER

- The Recovery Operations Center (ROC) is activated following the de-activation of the EOC.
- Depending on the size and complexity of the disaster, the ROC will operate virtually or as a fixed facility.
- The ROC provides the ability for recovery organizations to engage in uninterrupted integrated planning, and long-term coordination of resources and personnel, while maintaining centralized control of post-disaster redevelopment operations.

RECOVERY OPERATIONS CENTER (CONT.)

Recovery Support Functions (RSFs)

- RSF Economic
- RSF Environment
- RSF Finance
- RSF Health
- RSF Housing
- RSF Infrastructure and Transportation

RECOVERY OPERATIONS CENTER (CONT.)

Recovery Support Functions (RSFs) (cont.)

- RSF Intergovernmental
- RSF Land Use
- RSF Public Information / Outreach
- RSF Mitigation
- RSF Social Services

The ROC is used as a clearinghouse among the RSFs to accomplish their individual missions.

RECOVERY OPERATIONS CENTER (CONT.)

Recovery Action Plan

- Created by the Recovery Planning Team.
- Plan identifies the objectives, priorities and task assignments of the Recovery Task Force and the various RSFs.

RECOVERY OPERATIONS CENTER (CONT.)

Situation Reporting (SitReps)

- SitReps are developed by the Recovery Planning Team.
- During the recovery phase, the ROC will maintain situational awareness via WebEOC as well as create and publish SitReps.
- Types of information collected & reported, but not limited to:
 - ❖ Status of infrastructure repairs and estimated restoration timeframes.
 - ❖ Quantity of debris cleared.
 - ❖ Total count of disaster survivors requiring housing assistance?
 - If applicable, the #s of survivors who have applied for Federal Individual Assistance.
 - ❖ Federal, State and/or Local funds obligated to recovery operations.

RECOVERY OPERATIONS CENTER (CONT.)

- Each RSF will be assigned a WebEOC username by the primary agency.
- The following reports will be available in WebEOC for each RSF:
 - ❖ Activity Log
 - ❖ Significant Events List
 - ❖ Agency Situation Report
 - ❖ ROC Situation Report
 - ❖ Recovery Support Plan
 - ❖ Resource Request/Mission Task

QUESTIONS / COMMENTS

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