



An Exelon Company

Executive Summary August Blast Storm 8/10/20

8/24/20

- ✓ Weather
- ✓ Storm Impact
- ✓ Storm Damage
- ✓ Timeline – weather with conditions and decisions overlaid
- ✓ ComEd's Response
 - Activation
 - Restoration Resources
 - Mutual Assistance
 - Base Camps/Incident Commands
 - Municipal Outreach
 - Generators
 - COVID19 Preparations and Precautions

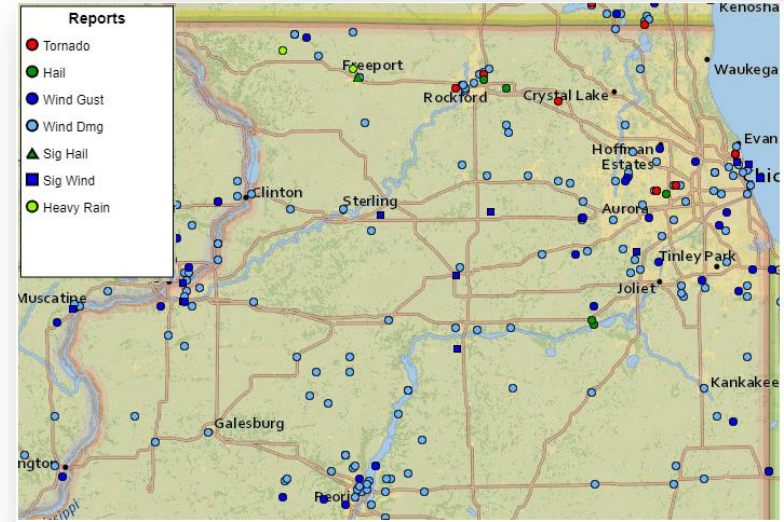
- ✓ In addition to straight-line winds, 15 tornadoes were confirmed within the broader area of severe winds across northern Illinois and northwest Indiana, 14 of which were within or near the service territory.
- ✓ This is the second highest number of tornadoes to occur on a single calendar day in NWS Chicago's area of responsibility, and the most to occur on a single calendar day in the month of August since 1950.
- ✓ This number of tornadoes within NWS Chicago's jurisdiction is second behind the June 30, 2014 "Double Derecho" and tied with the 15 tornadoes on June 22, 2016.
- ✓ Fourteen tornadoes are more than twice the average number of tornadoes for the month of August of any state in the continental United States; the average in August for Illinois is 2.5 (based on 1991-2015 data).
- ✓ In total, the derecho produced 20 confirmed tornadoes across Illinois, Wisconsin, and Indiana.

Preliminary Storm Impact

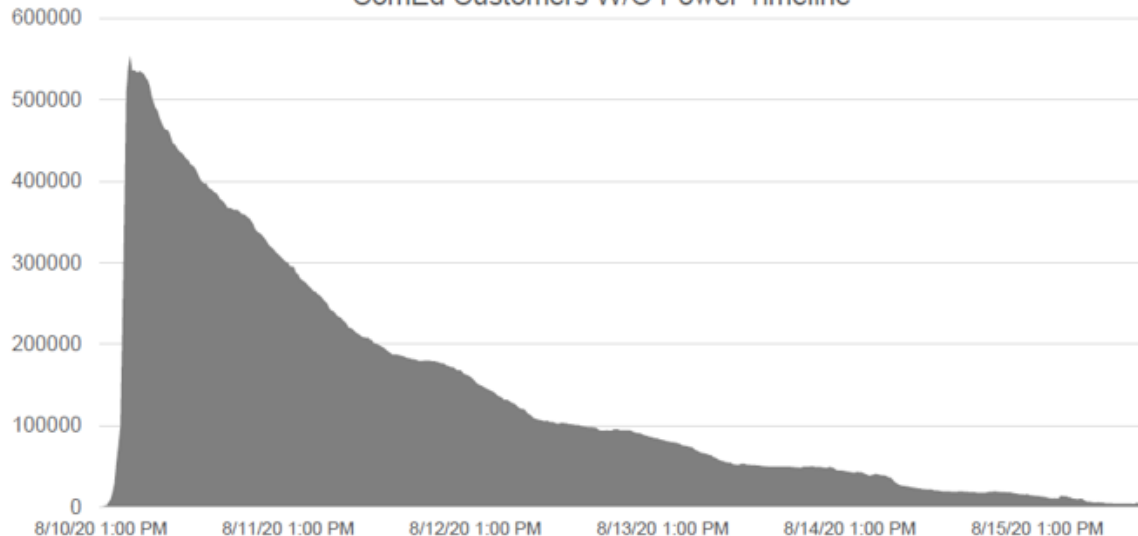
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- ✓ The reportable storm affected over 860,000 customers
- ✓ **67% (540,000 customers) were restored within 24 hours from losing power (fastest in company history)**
 - South Region accounted for 41% of the total
 - West Region accounted for 26% of the total
 - Chicago Region accounted 17% of the total
 - North Region accounted for 16% of the total

Storm Reports recorded during the 8/10 derecho



ComEd Customers W/O Power Timeline



- ✓ Final customers were restored Sunday night
- ✓ **Without system investments beginning in 2012, the storm would have impacted 700,000 more customer outages and extended restoration efforts for several more days.**
- ✓ The Storm Difficulty Rating is a 10 (Max)

ComEd Equipment Damage

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- ✓ 1,132 poles replaced
- ✓ 433 distribution transformers
- ✓ 135 miles of wire and cable were used to repair lines damaged or downed during the storms





 The picture can't be displayed.


Weather Forecast Timeline - Sunday

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National Weather Service

MON
CHANCE

50%
Greatest chance south P.M.
86-89°

MON NIGHT
CHANCE

50%
Storm chances diminishing overnight
63-70°


Mon: Strong P.M. storms with heavy rain possible well south of I-80.

National Weather Service

Scattered Thunderstorm Potential Late Tonight and Monday

A Few Storms May Be Strong to Severe

WHAT TO EXPECT

Late Tonight-Monday AM: A cluster of thunderstorms may move across the area

Monday Afternoon-Evening: Additional clusters of scattered storms ahead of a cold front, possibly favoring areas south of I-80

Severe Weather Threat

0	1	2	3	4	5
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THREATS (in addition to lightning)



Strong to locally damaging winds



Heavy rain & localized flooding

ACTIONS

- ✓ Move indoors if you hear thunder!
- ✓ Slow down if driving in downpours!

0400 Hrs

0800 Hrs

1200 Hrs

1600 Hrs

2000 Hrs

0000 Hrs

Sunday

EN Y10

SG Y9/G1

M&T Y9/G1

SG Y9/G1

SG Storm Geo
M&T Murray and Trettel
EN Earth Networks

M&T Y8/G2

Weather Forecast Timeline – Monday Morning

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

National Weather Service

Warm & Humid Today, Afternoon Thunderstorms Likely

Cooler & Less Humid Conditions Tuesday

Hazards Today

- Warm and humid with heat index values near 100F.
- Scattered thunderstorms this afternoon into early this evening.
- Severe thunderstorms possible with localized wind gusts to 70 mph with the strongest storms.

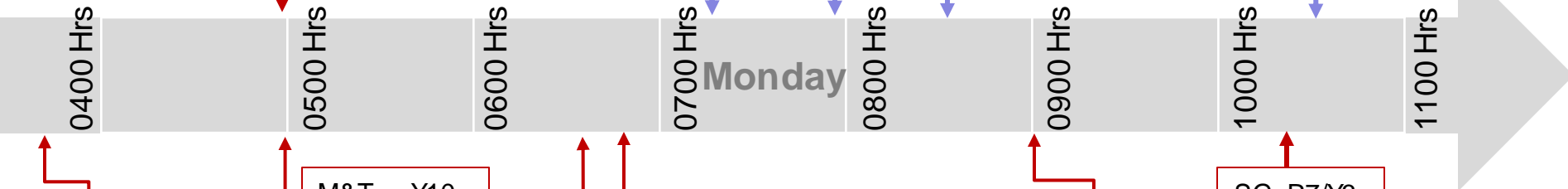
MON	TUE	WED
Humid	Far south	Far south
 60%	 20% south	 20% south
87-90°	79-85°	79-85°
Chance P.M. storms E-central IL	Chance P.M. storms E-central IL	Chance P.M. storms E-central IL
MON NIGHT	TUE NIGHT	WED NIGHT
 40%		
61-70°	59-67°	62-69°

~ 0715 hours enhance d staffing discussio ns start

0754 hours Y10 OES & R2 OH staffing propose d

1030 hours OES & OH 16's & 8's, 40% back shift staffing issued

0830 hours Y10 OES & R4 OH staffing issued



M&T Y10

EN Y6/R4

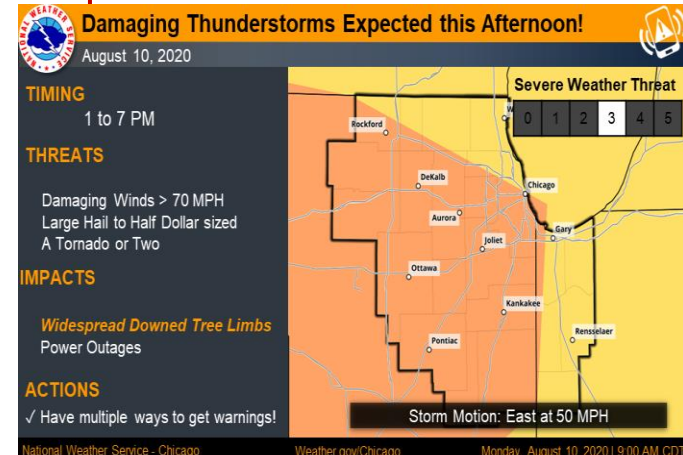
SG R7/Y3

EN Y8/G2

SG Y9/G1

Understanding Severe Thunderstorm Risk Categories

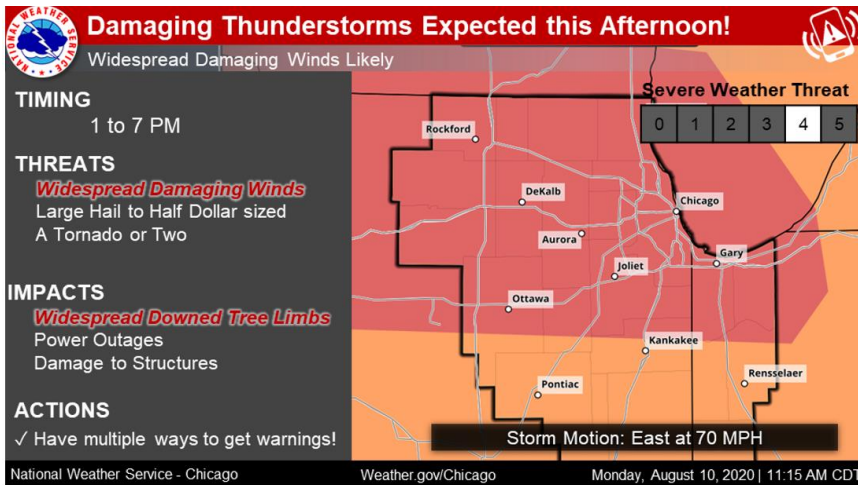
THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	Isolated severe thunderstorms possible	Scattered severe storms possible	Numerous severe storms possible	Widespread severe storms likely	Widespread severe storms expected
Lightning/flooding threats exist with all thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense



Weather Forecast Timeline – Monday Afternoon

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National Weather Service



1415 hours
EU COO
Call
requesting
as many EU
FTE's as
possible

1600 hours NMAG
call held. 2,000
FTE's requested, 30
received

1900 hours
GLMA & SEE call
held. 1,500
FTE's requested,
163 received

~1600 hours
requested DPL
immediately
release the
last 69 ComEd
FTE's vs
finishing day at
DPL

1800 hours IDO call
held. 174 EU FTE's
and 342 Contractor
FTE's received & 3
Feeder SPOC teams

Monday



SG R8/B2

Open All
Storm
Teams

M&T R6/Y4

EN B10

SG R8/B2

~ 1300 hours
NMAG call
requested for
1600 hours

1400 hours in 108
customers out of
service system wide

1430 hours 6,018
customers out of
service in WR and
6,126 system wide

1600 hours
customers OOS:
WR 91,841
SR 65,419
NR 46,428
CR 1,797
SYS 205,485

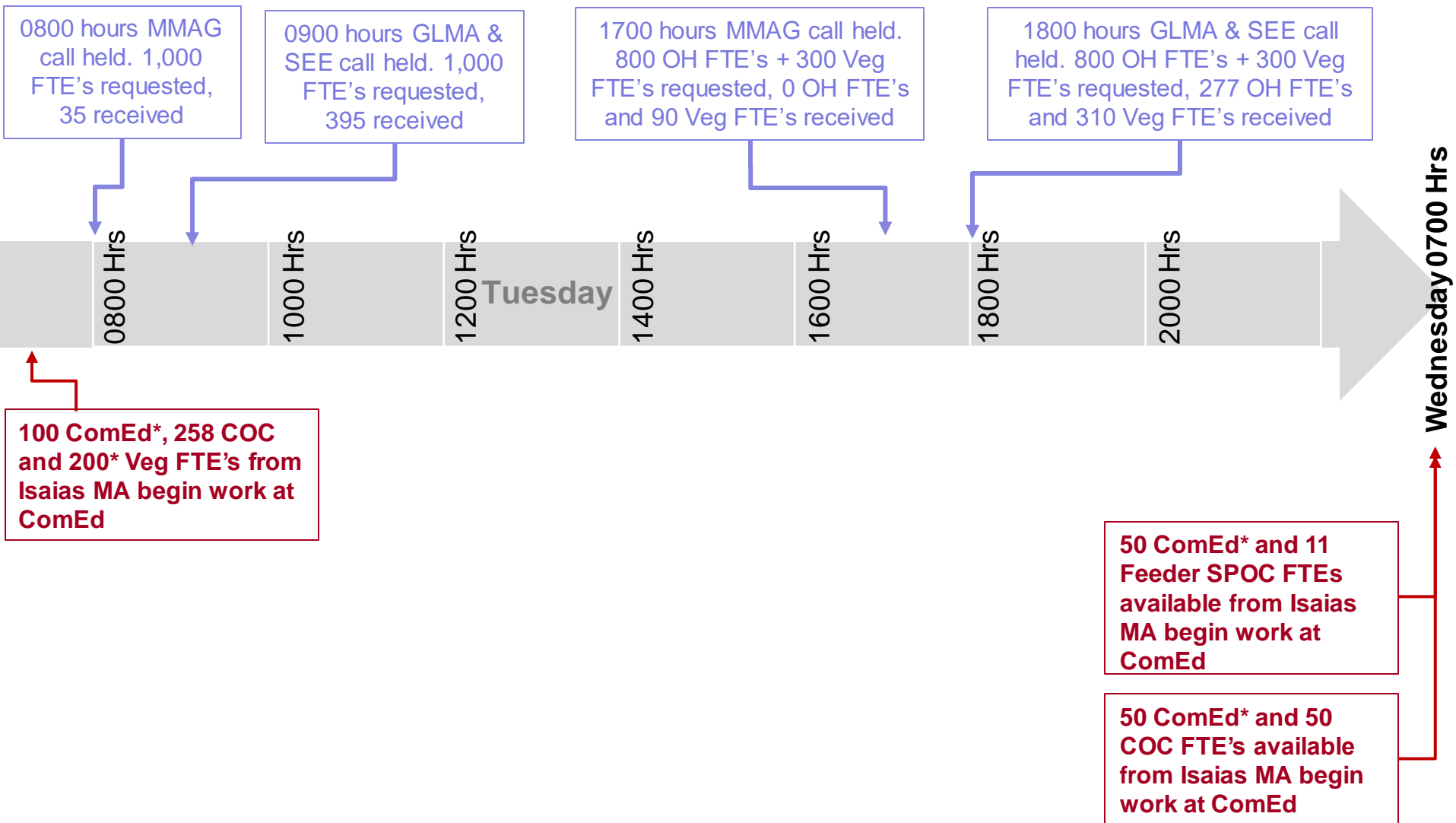
1800 hours
customers OOS:
WR 114,020
SR 265,031
NR 98,309
CR 147,934
SYS 625,294



200* ComEd, 308 COC and 200* Veg FTE's NOT available on Monday due to Isaias MA on the East coast
*this number does not include support personnel

Weather Forecast Timeline - Tuesday

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ComEd's Response



Due to the severity of this storm, we activated 7 out of our 8 storm teams. Each shift was comprised of two storm teams in order to handle both ComEd and Mutual assistance crews.

Storm teams activated:

- Storm Teams – Echo/Foxtrot/Golf primary duty
- Storm Teams – Alpha/Bravo/Charlie/Delta – called in for back up
- Storm Team – Hotel on reserve, specific members called in (SIC)

This event was handled as an “all Hands-on deck” event. Using all our Craft and Management employees.

- ✓ **Over 6,200 employees including mutual assistance and our Exelon Utilities OpCos from PECO, BGE, and PHI**
- ✓ The EOC and all Regional Offices opened at 1300 on 8/10/2020 with full staffing:
 - Over the course of the next 7 days all ComEd storm teams were activated in support of this event = 1,300 employees
 - Distribution Overhead Resources = 725
 - Distribution Service Resources = 350
 - Contractor Overhead Resources = 787
 - Exelon Utility OpCo Resources = 174
 - Vegetation Resources = 925
 - Patroller Resources = 185
 - Wire Watcher Resources = 178
 - External Mutual Assistance Resources = 1,592
 - **Total Resources = 6,216**

Mutual Assistance

- ✓ ComEd initiated Mutual Assistance request during the storm event (first request was Monday, August 10 at 1600)
- ✓ ComEd initially requested over 2,000 distribution overhead employees
- ✓ Mutual Assistance employees were not immediately available due to ongoing storm support on the East Coast Hurricane Isaias
- ✓ ComEd received 2,085 employees
- ✓ **Timeline of Mutual Assistance:**
 - 8/11 Tuesday – 0 employees
 - 8/12 Wednesday – 843 employees
 - 8/13 Thursday – 1,679 employees
 - 8/14 Friday – 2,085 employees

*2,085 employees includes Mutual Assistance, EU OpCo and Vegetation Management contractor resources





Base Camps

UIC

NIU

JJC

TINLEY

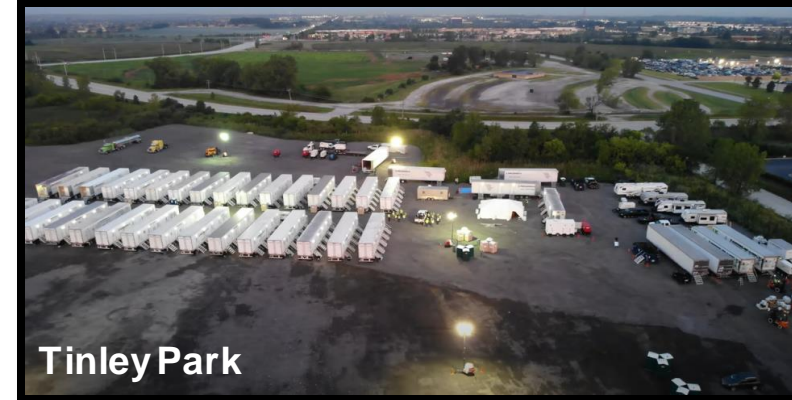
Base Camps

- ✓ ComEd established 4 major base camp sites. Each site was selected based on location of damage

Region	Base Camp	City
Chicago	University Illinois Chicago	Chicago
South	Hollywood Casino Amphitheatre West Parking Lot	Tinley Park
South	Joliet Jr. College	Joliet
West	Northern Illinois University	Dekalb

- ✓ 7 Feeder SPOC Teams were deployed (4 from ComEd, 1 from each of our Exelon OpCos) to manage the influx of mutual assistance crews
- ✓ Additional sites were identified for parking and material staging areas

Region	Material Staging Sites	City
Chicago	United Center (additional parking)	Chicago
South	Olivet Nazarene University (material staging area for Feeder SPOC Teams)	Bourbonnais
South	Strip Mall Parking Lot (material staging area for Feeder SPOC Teams (TDC 436)	Crest Hill
South	Incident Commander/Material staging area	Harvey
West	First Reformed Church (staging area for Feeder SPOC Teams)	Fulton



Command Vehicles

- ✓ **Mobile Command Unit (MCU)**
 - Hillcrest Plaza at 1701 N Larkin with Feeder SPOC team
- ✓ **Mobile Operations Center (MOC)**
 - Tinley Park Base Camp
- ✓ **Mobile Command Vehicle (MCV) “The Bus”**
 - Harvey Incident Command
- ✓ **Mobile Response Unit (MRU) Unit #2**
 - Feeder SPOC team moved to various locations
 - Hillcrest Plaza at 1701 N Larkin with Feeder SPOC team
 - Lane Tech in Chicago
 - Chicago 502 Woodlawn Dr.
- ✓ **Mobile Response Unit (MRU) Unit #1**
 - Hillcrest Plaza at 1701 N Larkin with Feeder SPOC team



Base Camps

- ✓ Each Base Camp included the following and complied with all COVID19 protocols (pre-access employee screening, face masks, social distancing, individual boxed meals)
 - Accommodation and parking for 500+ mutual assistance FTEs, trucks, trailers and equipment
 - Training tent for onboarding and LOTO
 - Room for catering, dining tent
 - Sleeping, shower, laundry, bathroom trailers to accommodate 500 FTEs
 - Handwashing stations
 - Material Staging area (minor and major material, poles, crossarms and transformers)
 - Dumpsters
 - Security
- ✓ **The trailers began arriving at the base camps sites on 8/11/20 at noon and were operational by the morning of 8/12/20**
- ✓ Each base camp was staffed with an Incident Commander and multiple base camp personnel
- ✓ Vehicles parked at the base camp sites were fueled overnight for quick deployment in the morning
- ✓ The strategy was to close base camp sites as the Mutual Assistance crews moved. The base camps were closed in the following order: UIC, JJC, NIU and Tinley Park
- ✓ Material staging areas were closed as Feeder SPOC Teams moved to other areas for restoration.
- ✓ Environmental and LCS Reps performed a final walk down with the Base Camp Managers for all sites prior to closing.
- ✓ Upon Closing - All remaining food was donated to the Thornton Township Foodbank in Harvey and Greater Chicago Food Depository.



Municipal Outreach



- ✓ Customer Operations and Governmental Affairs collaborated with community partners, mayors, and aldermen
- ✓ Due to concentrated outages, ComEd opened six Joint Operating Centers to work with municipal leaders to prioritize critical customers and align on restoration priorities – the most deployed since introduced since 2012...
- ✓ Across 11 communities to venues including food pantries, village halls, nursing homes, and social service agency centers ComEd delivered over 3,600 care packages of Flashlights, 2,200 chargers, 1,400 bottles of hand sanitizers, and 1,400 cases of water and 500 bags of ice
- ✓ Call Center fielded over 1 million inbound calls during the week and made over 1,000 outbound calls to customers with extended outages beginning on the evening of August 14
- ✓ The Joint Information Center monitored over 26,000 inbound social media interactions
- ✓ Communications fielded over 70 media requests for outage information and prepared leaders for or directly participated in 20 interviews
- ✓ Communications also facilitated an interview with Cheryl Maletich (SVP, Transmission & Substation) in Harvey that was attended by all five local television stations
- ✓ Five press releases were issued throughout the course of the event



Generators

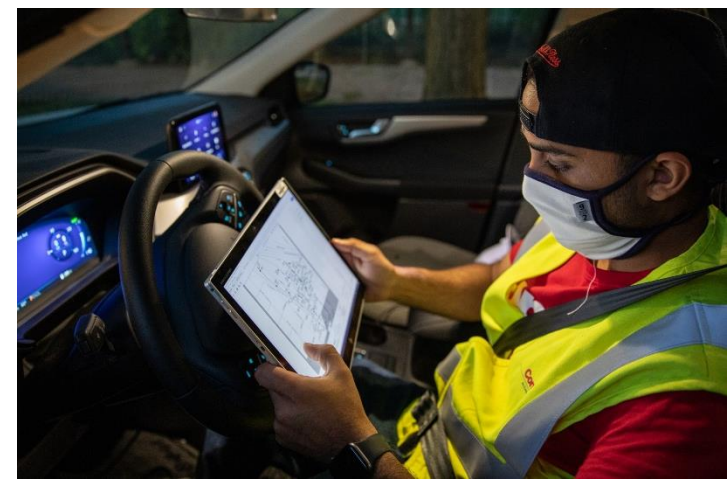


- ✓ Deployed 4 – 2mw generators picking up
 - Markham pumping station
 - Children's home
 - Med center
 - Walt's Food Center
- ✓ Deployed 4 – 250kw generators picking up
 - Various senior/nursing facilities
 - Incident command rebuilt G767, G765, 34kV L7661 in ROW, and G58

*Information provided from incident command

COVID19 Preparations and Precautions

- ✓ All storm remote roles working remote, no major issues identified. 65% of all storm roles were remote
- ✓ Extra staffing on site presented minor issues with moving workstations
- ✓ Storm room cleaning at turnover worked well, some cleaning staff were not timely, some were not easily accommodated by storms teams not doing a virtual turnover early in the storm – this was addressed
- ✓ Base camp safety lead by 3rd party vendor
- ✓ Did have one suspected case from



Best Practices:

- ✓ No COVID19 cases as a result of storm response
- ✓ Calling base camps early (need trigger)
- ✓ COVID precautions put in to place early (including ESCC document)
- ✓ 65% of storm response roles were able to remote report

Areas of Improvement:

- ✓ Could not get MA resources quickly
 - Many resources engaged in Isaias and
 - Need to enhance relationships with aggregators
- ✓ Need to establish a MA onboarding packet with basic info
- ✓ Had enough dispatching stations available, but could not use all due to social distancing