

Ameren Illinois Company

2019 Summer Preparedness

Presentation to the Illinois Commerce Commission June 26, 2019

Brice Sheriff – Director, Regulatory Affairs

George Justice – Vice President, Electric Operations

2019 SUMMER RELIABILITY REVIEW

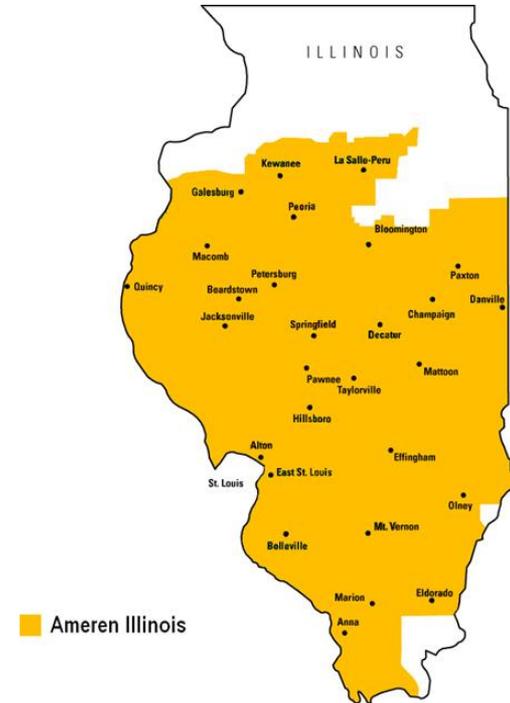
- Transmission and Resource Adequacy
 - Summer Peak Loads
 - Ameren Illinois Supply Portfolio
 - Retail Electric Suppliers (RES) Supplier Load
 - Demand Response, RES, Operating Reserve Resources

- Readiness
 - Transmission and Distribution Facilities
 - Emergency Preparedness and Response
 - Contact Centers and Communication Strategy

- Summary

AMEREN ILLINOIS COMPANY

- 1.2 million electric customers
 - 46,000 miles of distribution lines
 - No power plants
 - Purchase electricity
- 816,000 natural gas customers
 - 18,400 miles of natural gas pipeline
 - No production facilities
 - Purchase natural gas



2019 SUMMER RELIABILITY REVIEW

- Ameren Illinois Company has verified that sufficient generation resources are committed to serve the Illinois load. In addition, transmission and distribution capability is adequate to provide reliable electric service to our Illinois customers during 2019.

TRANSMISSION AND RESOURCE ADEQUACY

Summer Peak Loads (MW)

	2018 Actual	2019 Expected	2019 Worst Case
Ameren IL Total	7,052	7,105	7,567

TRANSMISSION AND RESOURCE ADEQUACY

Resource Adequacy

Ameren Illinois' Forecast of Who Is Supplying the Load (MW)

	<u>Peak</u>	<u>Capacity*</u> <u>Acquired</u>
Ameren Illinois Load		
Fixed Price Load	1,631	1,760
Real-time Price Load	<u>249</u>	<u>269</u>
AIC Subtotal	1,880	2,029
Retail Electric Supplier Load	<u>5,225</u>	<u>5,638</u>
Total	7,105	7,667

** Includes MISO 7.9% required reserve margin*

TRANSMISSION AND RESOURCE ADEQUACY

Demand Response Resources

- Interruptible Load
 - Currently: ~ 266 MW of Interruptible and behind-the-meter load
- RTP for Residential, Small C&I, and Large Customers >150 kW
 - Hourly Day Ahead MISO prices posted and used for settlement
 - Interval Meter Required
 - Projected summer participation:
 - **Large Customers** ~790 accounts with ~190 MW of coincident peak demand
 - **Small C&I** ~863 accounts and **Residential RTP / PSP** ~13,396 accounts with ~59 MW of combined coincident peak demand
 - **Rider Power Smart Pricing (PSP)** administered by Elevate Energy

TRANSMISSION AND RESOURCE ADEQUACY

Retail Electric Suppliers

- Do not anticipate any transmission constraints on the Ameren Illinois system that would inhibit the adequate supply to RES customers located in Ameren Illinois' service territory.
- RESs designate their supply resources to MISO and make arrangements for transmission service.

TRANSMISSION AND RESOURCE ADEQUACY

Ameren Illinois' Transmission System

- 5,048 circuit miles of transmission (138 kV through 345 kV) and 215 Bulk Electric System (BES) substations
- No Ameren Illinois transmission facilities are anticipated to be loaded above 100% at expected load levels.
 - The analysis is based on NERC and SERC planning standards, which include all single contingencies as specified by NERC.
- A Summer Operating Study is conducted to test the system and provide guidance to the operators. Ameren also participates in a MISO-wide Coordinated Summer Assessment. The results of both studies show the Ameren system is adequate to serve summer loads.
- Ameren Illinois is a transmission-owning member of the MISO. As such, the MISO congestion management process, which includes security constrained dispatch, is designed to alleviate constraints which may occur.

TRANSMISSION AND RESOURCE ADEQUACY

Transmission Vegetation Management

- Comprehensive Vegetation Management Program, compliant with NERC standards, which includes:
 - Minimum of annual aerial or ground patrols on all circuits 100 kV and up. NERC reportable circuits patrolled a minimum of twice annually, at least once from the ground.
 - Annual review of trimming schedules and vegetation control processes by Vegetation Management.
- Target of zero preventable tree contact related transmission outages for Vegetation Management group
- www.ameren.com/transmission

DISTRIBUTION SYSTEM

Reliability

All Sub-Transmission Feeders, Substations, and Distribution Feeders are expected to be loaded within applicable ratings for expected and worst case summer peak scenarios on the Ameren Illinois Company Distribution System.

DISTRIBUTION SYSTEM

Energy Infrastructure & Modernization Act (EIMA)

The following EIMA projects completed in 2018 will help to improve system performance and reliability year-round.

- Primary and high voltage distribution automation projects
 - Reduce the number of customers affected by any single occurrence and improve fault locating ability
- Substation Viper reclosers
 - Provide better coordination, fault locating, and single phase isolation
- High voltage distribution reinforcement poles
 - Increase reliability by limiting potential for line cascading
- Primary and high voltage distribution line rebuilds
 - Improve reliability of overhead distribution lines

DISTRIBUTION SYSTEM

Energy Infrastructure & Modernization Act (EIMA)

The following EIMA projects completed in 2018 will help to improve system performance and reliability year-round. (continued)

- Spacer cable rebuilds or replacements
 - Improve performance and reliability of spacer cable systems
- System ties
 - Improve operating efficiency and reliability of the distribution system
- Distribution capacity
 - Increase the capacity of existing system to better serve load
- Substation animal fences
 - Mitigate risk of animal outages from contact with live substation equipment

DISTRIBUTION SYSTEM

Voltage Optimization Program

In 2018, AIC began implementation of its Commission-approved Voltage Optimization Program

- VO to be deployed on an estimated 1,047 circuits by 2025.
- Estimated reduction in energy delivered to customers of 422 GWhr-yr at end of deployment (1.5% of yearly delivered energy)
- 19 circuits operating in 2019
- An additional 132 circuits being deployed in 2019 to be in service by year end.

DISTRIBUTION SYSTEM

Distribution Vegetation Management

- Continue to meet all legal and regulatory compliance requirements related to vegetation management.
- Continued focus on mowing and spraying operations along ROW corridors. The program provides better overall operational access to facilities and also reduces future trimming requirements.
- Additional utilization of aerial trimming and other mechanized equipment to improve reliability and productivity.
- Tree-related SAIFI has dropped from 0.16 in 2009 to 0.10 in 2018. Through April 30, 2019, SAIFI is 0.03.
- Continue educating the public regarding *Right Tree Right Place* concepts through public awareness ads, bill inserts, mysafetrees.com, and municipal interaction with vegetation management staff.

DISTRIBUTION SYSTEM

Distribution Vegetation Management – Washington Park ROW Clean-Up

- Various rights-of-way in Village of Washington Park
 - Years of illegal dumping in alleys
 - Vegetation overgrowth
 - Virtually impossible for AIC trucks to gain access
- November 2018
 - Launched pilot program to clean up debris along ROWs
 - 200 truckloads of debris removed
 - Mattresses, TVs, tires, roofing shingles, etc.
 - Vegetation cleared from facilities
- Successful Clean-up
 - Easier access (including emergency response) to our electric and gas facilities
 - Grateful residents



DISTRIBUTION SYSTEM

On-Going Reliability Improvement

- Identification / Analysis of Worst Performing Circuits
 - Associated Remediation Work
- Circuit Inspection and Repair
 - Visual Inspection & Pole Strength Testing
- Storm-Line Hardening
 - Use of composite poles to limit damage
- Device Inspections on Reclosers, Capacitors, and Regulators



DISTRIBUTION SYSTEM

System Operation and Control

Initiative

Status

- Practice Load Shed Drill with Transmission Operations and MISO (Midcontinent Independent System Operator) each month Ongoing
- Update and review of operating guidelines within all Dispatch Offices Ongoing
- Monitor System Improvement Construction Projects to ensure completion before summer peak Complete

DISTRIBUTION SYSTEM

Emergency Preparedness and Response

- EOC Activation

- 2018

- 3 Electric Events (Damage to Ameren Illinois' systems) totaling 5 days of activation
 - 0 Gas Events
 - Puerto Rico assistance provided without formal EOC activation

- 2019 (as of May 26)

- 4 Events (Storm damage to Ameren Illinois' system) totally approximately 7 days

- Enhanced, Proactive Communication to Stakeholders and Customers

- Focus on updated Estimated Safe Restoration Time information by outage order
 - Proactive engagement with the State Emergency Operations Center and with local and county entities to contribute information critical to building state-wide situational awareness
 - Communications plan is activated before Ameren Illinois experiences damage and continues through the course of all events and EOC activations

On-going Training and Exercise

(number of hours)

	Total	Logistics	Operations	EOC
2018	2,920	1,110	1,160	150
2019	515	7	432	76

DISTRIBUTION SYSTEM

Contact Centers and Communications

- Customer Service, Community Outreach & Public Relations
 - Integrated Call Centers
 - Home Agents available for additional support
 - Chat available M-F from 7:00 a.m. – 7:00 p.m.
 - Community Relations
 - Outreach prep with municipal leaders/IEEMA/ESDA
 - 24-Hour Outreach to critical customers
 - PR/Media Relations
 - Social updates (Twitter@AmerenIllinois and Facebook.com/AmerenIllinois)
 - Digital Customer reps respond to inquiries in social channels
 - 24-Hour Media Hotline
 - Safety Training to prepare first responders for disaster safety and recovery

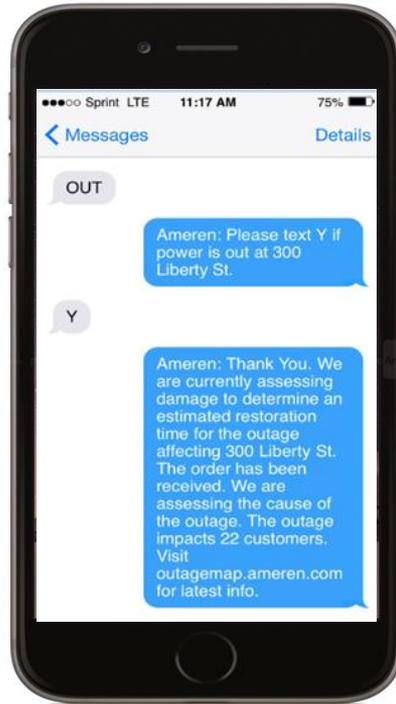


ENHANCED DIGITAL CUSTOMER FEATURES

Offering a customizable, consistent, and measurable outage communications experience

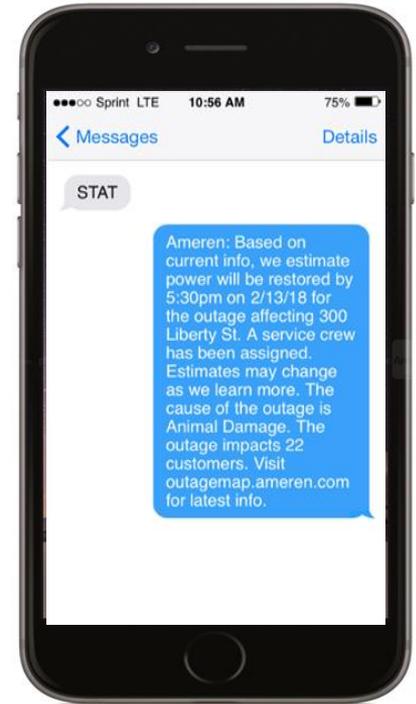
Text OUT

- Gives customers the option to report an outage via text.
- When customer texts OUT to AMEREN, the account is looked up based on the phone number that sent the message.
- If successful, the outage is confirmed and reported.



Text STAT

- Gives customers the option to check outage status via text.
- When customer texts STAT to AMEREN, the account is looked up based on the phone number that sent the message.
- If successful, we reply with the power status. If power is out, the reply will include the estimated restoration time and the cause (if known).



COMMUNICATING WITH CUSTOMERS



Social Media

 **Ameren Illinois** 
Published by Sprinklr [?] · May 29, 2018 · 

Before you leave for that well-deserved vacation, make sure to turn up the thermostat. You'll save energy and money.



AMERENILLINOISSAVINGS.COM

Stay Cool This Summer with These Simple Energy-Saving Tips | Ameren Illinois

About this 

 **Ameren Illinois** 
@AmerenIllinois

Summer temps will be here before we know it. Sign up for budget billing to manage your costs regardless of the season. Learn more: spr.ly/6017E9ZqZ

Bill Inserts

GET UPDATES ON OUTAGES YOU REPORT.

When you report an outage, you can get text alerts to indicate the status of when power will be restored.

And keep informed about planned outages by making sure we have your current phone number on your account.



BUDGET BILLING NO SURPRISES.



With Budget Billing, your energy costs are averaged throughout the year so you'll know what to expect from month-to-month.

Learn more at AmerenIllinois.com/Budget

Spring INTO **SUMMER**
WITH **BUDGET BILLING**

KEEP IT STEADY WHEN IT'S HOT OR NOT
Budget Billing averages your bills for level payment year-round.

APRIL	MAY	JUNE
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Learn more: AmerenIllinois.com/Budget

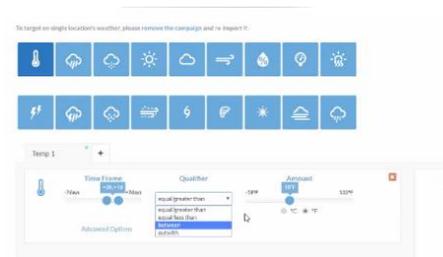
Need Energy Customer Support?

SUMMER MULTI-MEDIA CAMPAIGN

- Digital
 - Temperature triggered ads within the Weather Channel Ad
 - Temperature triggered social and search word ads
- Broadcast
 - Extreme temperature campaign continued into 2019
- Social Media



Key Message:
 “Ameren Illinois is prepared to deliver energy in extreme temperatures and weather conditions.”



HELPING CUSTOMERS

Brighten the Block



Ameren Illinois volunteers brightened blocks in Washington, Jerseyville, Lincoln, Mattoon, Collinsville, and East St. Louis by replacing porch lights with LED bulbs. This is the fourth year of the initiative that brings energy efficiency and safety to porches across its service territory.



Customer Outreach Events

Working closely with local partner agencies, Ameren Illinois has hosted customer assistance events since 2014. Held six times per year, these events offer one-time \$150 energy assistance grants to income-eligible customers that are applied directly to their account. Each attendee is receiving a free kit containing a low-flow shower head, faucet aerator, smart power strip, and LED lights.



2019 SUMMER RELIABILITY

Summary

Ameren Illinois ...

- Has acquired generation capacity and has the transmission and distribution capability to provide reliable electric service to its customers in 2019.
- Is working to complete critical maintenance and system upgrades to reduce customer interruptions.
- Crisis Management continues to improve our preparedness with 24-hour weather monitoring by Earth Networks/Weatherbug, by conducting internal exercises, and by pursuing other internal emergency response enhancement initiatives. These initiatives include detailed restoration planning and damage assessment solutions.
- Is continually looking for ways to improve performance and customer service.



Questions?

For More Information:

Please visit:

www.AmerenIllinois.com



APPENDIX

TRANSMISSION AND RESOURCE ADEQUACY

Distributed Generation and Net Metering (Statistics as of 2/10/19)



Distributed Generation

	Level 1				Level 2			
	2018-2019		Overall Totals		2018-2019		Overall Totals	
	<u>Cust</u>	<u>kW</u>	<u>Cust</u>	<u>kW</u>	<u>Cust</u>	<u>kW</u>	<u>Cust</u>	<u>kW</u>
Solar	517	3,578.4	1,372	9,856.6	56	5,577.0	262	14,232.0
Wind	0	0.0	50	246.0	0	0.0	17	4,629.3
Both	0	0.0	40	300.8	0	0.0	9	268.9
Requests Approved	517	3,578.4	1,462	10,403.4	56	5,577.0	288	19,130.2

Notes: Level 1 = Facilities less than or equal to 10 kVA

Level 2 = Lab certified interconnection equipment with nameplate capacity less than or equal to 2 MVA

Net Metering

Total Peak Demand of Customers on Ameren Illinois Supply Service	1,948.313 MW
Total Generator Nameplate Capacity of Net Metering Customers	23,086.440 kW
Total Number of Net Metering Customers	1,632

TRANSMISSION AND RESOURCE ADEQUACY

New or Upgraded Facilities

- ADM North Capacitor Bank (U)
- Albion South Capacitor Bank (N)
- Brokaw-Weedman 138 kV line (U)
- Cahokia-Ashley 138 kV line (U)
- Coffeen North-Coffeen line (U) (Terminal Upgrade)
- Crab Orchard-Herrin E. 138 kV line (U)
- Edwards Capacitor Bank (N)
- Fargo-Pioneer 138 kV line (U)
- Havana-Castro 138 kV line (U) (Terminal Upgrade)
- Havana-Ipava 138 kV line (U) (Terminal Upgrade)
- Hennepin-Woodhall 138 kV line (U)
- Hines-Pioneer 138 kV line (U) (Terminal Upgrade)
- Lawrenceville-Olney line (U)
- Latham (U)
- Newton (U)
- Mount Vernon West 345/138 kV Transformer (U)
- Mount Vernon 42nd St.-Mount Vernon West 138 kV line (U)
- Muddy-Norris City North 138 kV line (U)
- Muddy-West Frankfort East 138 kV line (U)
- Pana-Route 51 Decatur 138 kV line (U)
- Prairie State (New BAAH)

TRANSMISSION AND RESOURCE ADEQUACY

New or Upgraded Facilities (continued)

- RS Wallace-Springbay 138 kV line (U)
- South Bloomington-Tabor 138kV line (U)
- Vermillion-North Champaign 138kV line (U)
(Terminal Upgrade)
- Woodhall-Hallock 138kV line (U)
- Woodhall-Spring Bay 138kV line (U)
- Weedman-Mahomet 138kV line (U)
- Fayetteville Bee Hollow (U)
- Granite City 23rd Street (U)
- Greenville McCord (U)
- Hull (U)
- Herzog (N)
- Hilgard (N)
- Jarvis (N)
- Effingham Northwest (New Ring Bus)
- Fishhook (N)
- Granite City 23rd St. (New Ring Bus)
- Greenville McCord (New Ring Bus)
- Prest (N)
- Ruby (N)
- Mt. Vernon West (New BAAH)
- North LaSalle (New Ring Bus)



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