



# EMERGENCY COMMUNICATIONS AT SOUTHWEST POWER POOL

THIS WEB CONFERENCE WILL BEGIN  
AT 10:00 AM CENTRAL TIME

*Working together to responsibly and economically  
keep the lights on today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

# WHO IS SPP?

501(c)(6) nonprofit corporation

One of 9 regional grid operators

104 member companies in 14 states

“Air traffic control” for high-voltage grid

Balances supply and demand across region

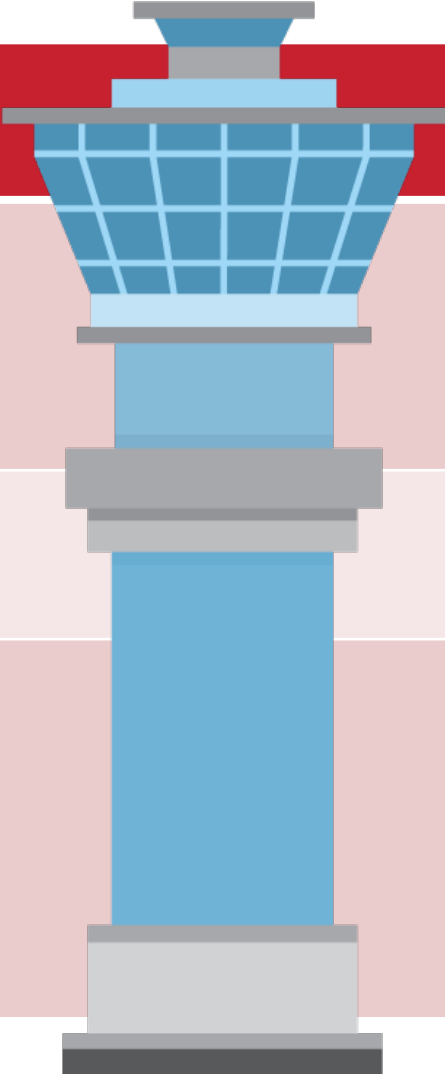
Maintains reliable grid operations

Operates wholesale energy market

Plans future transmission needs



# AIR TRAFFIC CONTROL: AN ANALOGY

Air Traffic Control		Southwest Power Pool
Does not own airplanes, airlines or airports		Does not own utilities, power generators or transmission lines
Does not own the sky it monitors		Does not own the land electricity flows across
Directs air routes to ensure airplanes and passengers are safely transported		Monitors and directs regional bulk power grid to ensure electricity gets from where it's made to where it's needed

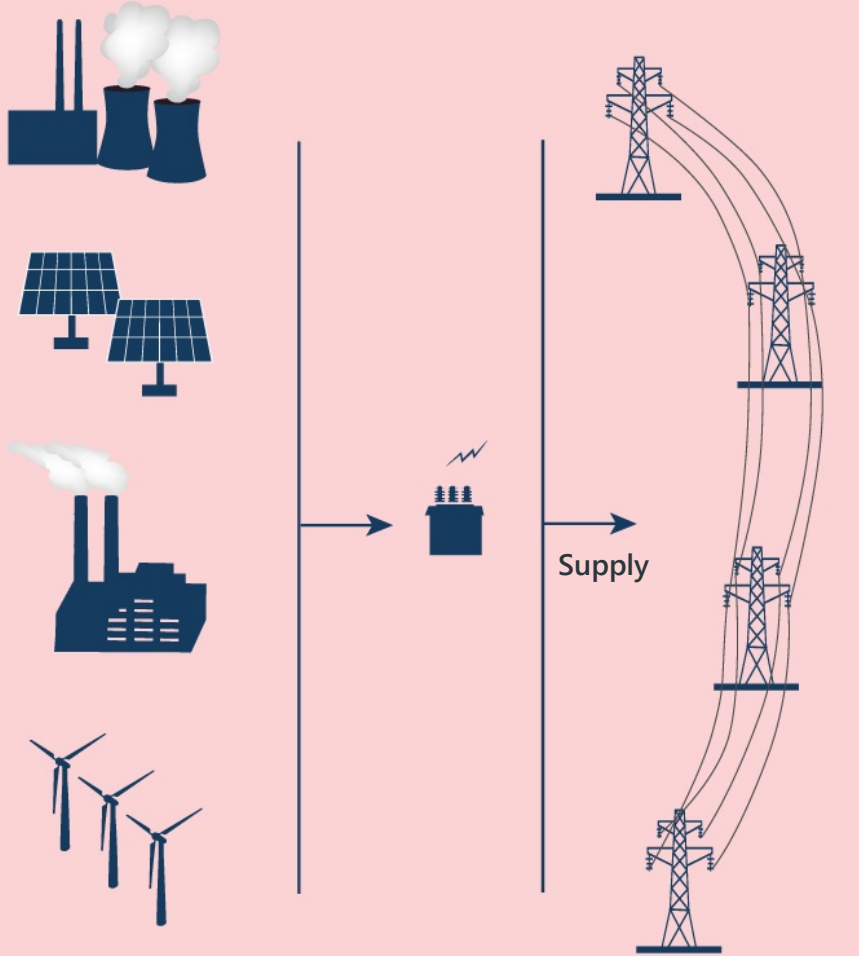


## SPP's Reliability Objectives

1: Energy supplied to grid must equal energy demands

2: Transmission system must be operated within safe, reliable limits

## WHOLESALE ENERGY AND TRANSMISSION

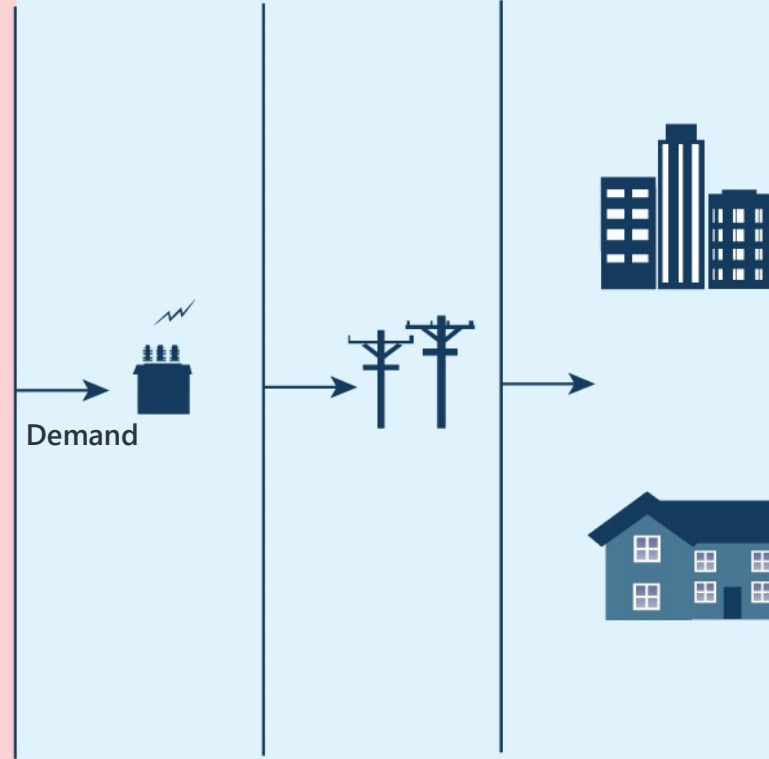


Power plant generates electricity

Transformer steps up voltage for transmission

Transmission lines carry electricity long distances

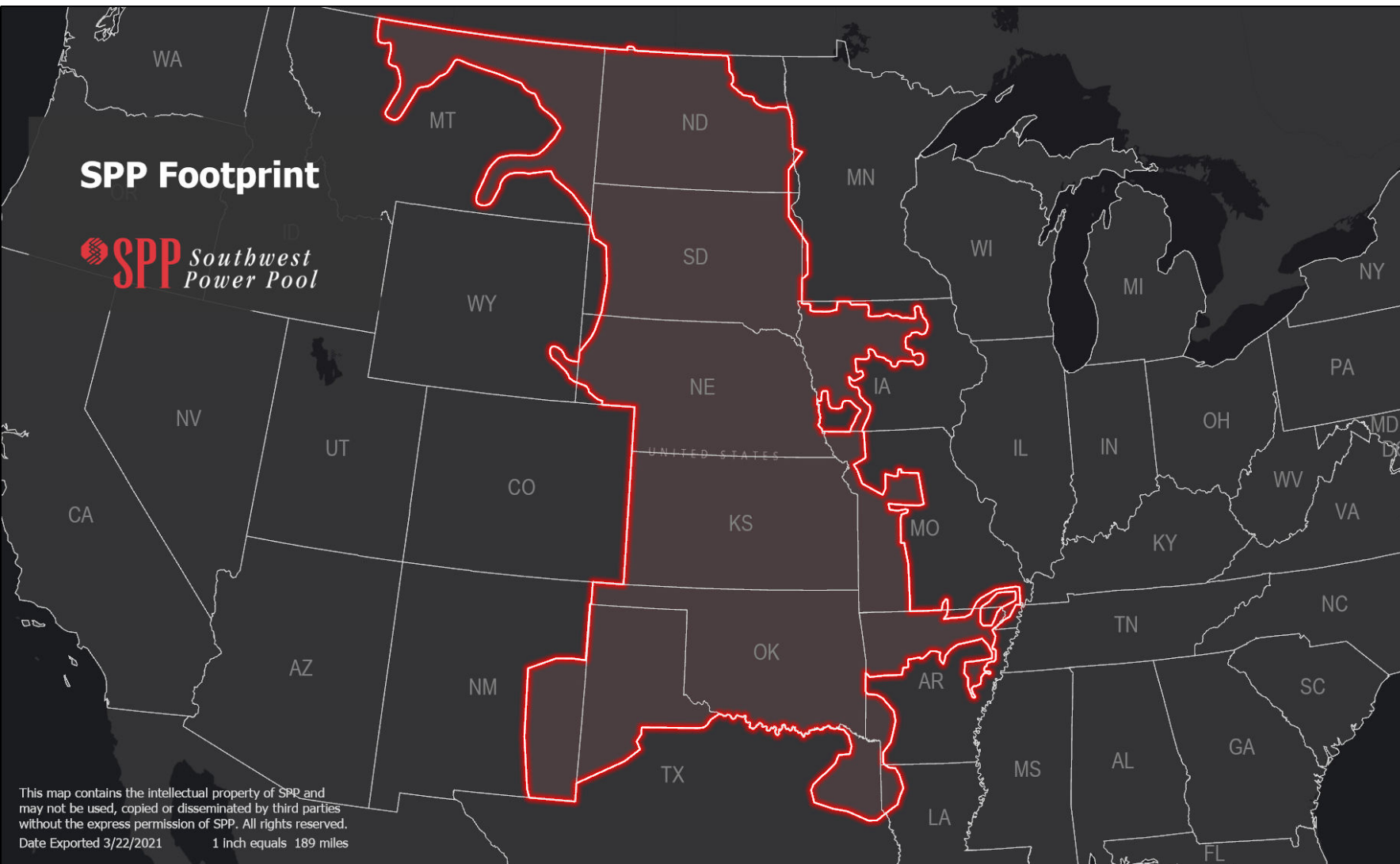
## RETAIL ENERGY AND DISTRIBUTION



Neighborhood transformer steps down voltage

Distribution lines carry electricity to homes and businesses

Transformers on poles step down electricity before it enters houses



## OPERATING REGION

- Service territory: 552,885 square miles
- Population served: Approx. 18 million
- Generating plants: 1,162\*
- Substations: 6,140\*

\* In SPP's reliability coordination footprint



# RELIABILITY COORDINATION: AIR TRAFFIC CONTROLLERS OF THE BULK POWER GRID

- Monitor grid 24 x 365
- Anticipate problems
- Take preemptive action
- Coordinate regional response
- Independent
- Comply with more than 5,500 pages of reliability standards and criteria



# WINTER 2021-22 OUTLOOK

CJ BROWN

DIRECTOR, SYSTEM OPERATIONS



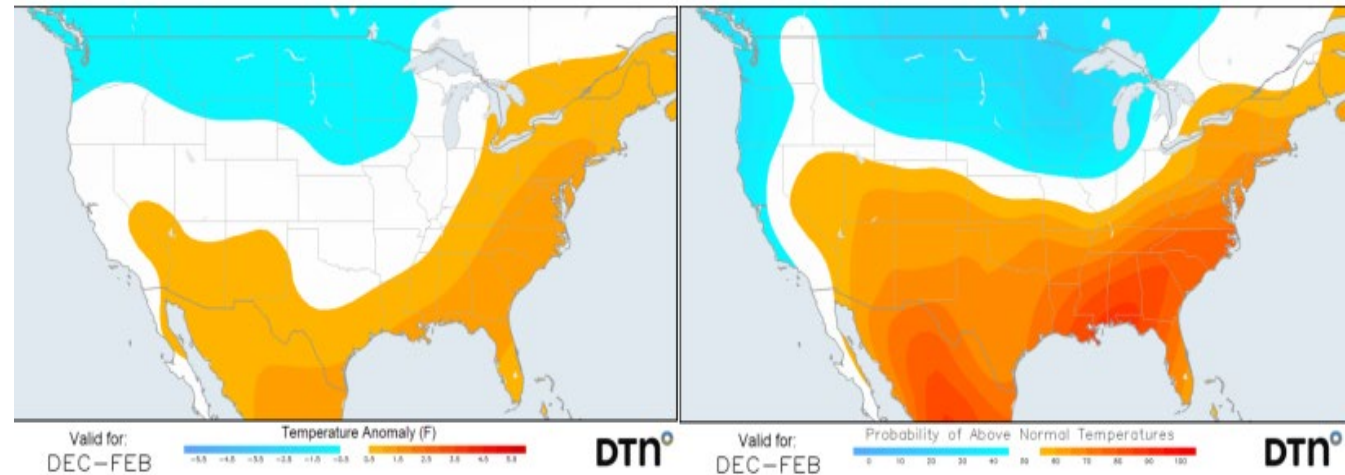


# TEMPERATURE FORECASTS

Warm risks is expected to outweigh cold risks this winter barring "Polar Vortex" behavior.

Risks of short lived intense cold intrusions but also sustained warmer periods would occur.

## DTN Temperature Outlook (Dec-Feb)

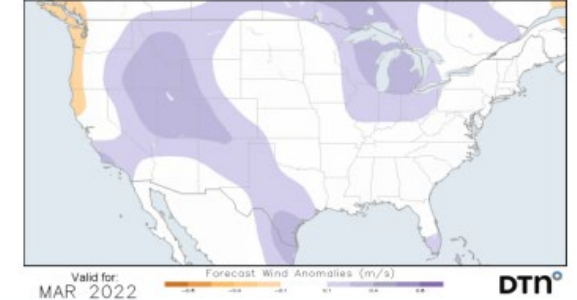
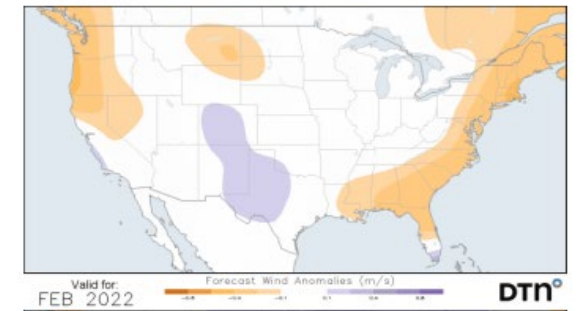
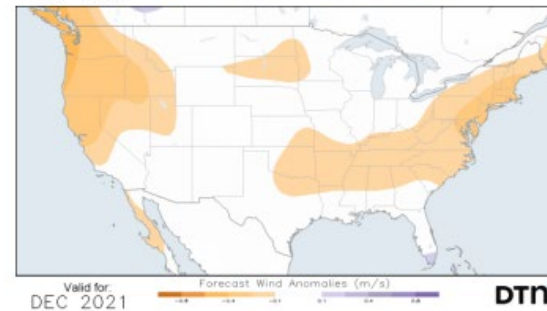
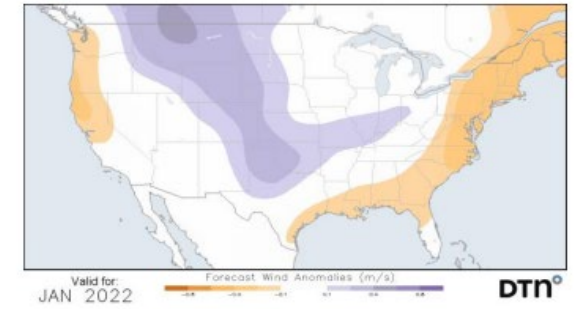
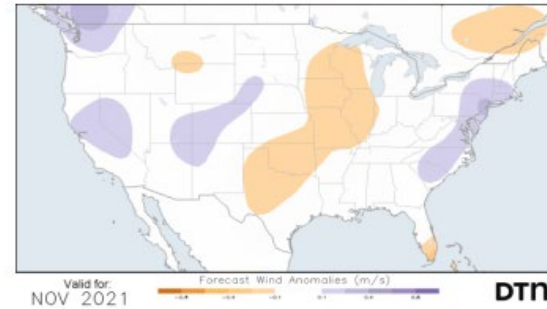




# WIND SEASONAL FORECAST

Wind generation is anticipated to slightly above normal across the plains

## DTN Wind Speed Outlook (Nov-Mar)



Confidential | 38

# GENERAL UPDATES

- Projecting wind and precipitation to be above normal this winter season across the SPP region.
- SPP reviewed and re-evaluated its allowed generation capacity for outages.
- Monitoring concerns with coal supply and the rising natural gas and other commodity prices. Market pricing mechanisms remain appropriate at this time.

# GENERATION ASSESSMENT PROCESS – ALLOCATED GENERATION OUTAGE CAPACITY

**Reduction in the amount of generation capacity that can be on planned outage for the 2021-2022 Winter season.**

The Generation Assessment Process utilizes historical information (3 year historical behavior of Wind, Load and Generation Forced outage rate)

Inherently, the allocated capacity for generation outages was reduced due to the February 2021 winter events.

Old Baseline vs. New Baseline (2021 - 2022 No Outages Taken Out)





# WINTER SEASONAL ASSESSMENT

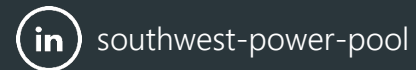
# 2021/2022 SPP WINTER ASSESSMENT CHANGES

- Seasonal Assessment changed to assess both a 90/10 and 50/50 coincident load forecasts. This was a change from using a non-coincident 50/50 LSE submitted forecast.
- The assessment includes a generation capacity evaluation, a reliability power transfer analysis, and various levels of wind penetration.
- The assessment indicated no reliability or balancing concerns.
  - Identified adequate mitigation process for deliverability concerns
  - Expected to be able to serve ~ 99.5 percentile of load based on 3 years of historical system conditions



# COMMUNICATION CHANNELS

*Working together to responsibly and economically  
keep the lights on today and in the future.*





# EXPLODERS

Grid Notice  
exploder

Emergency  
Communications  
User Forum  
exploder

News exploder

# EXPLODERS

- To sign up for email notifications:
  - [Log into SPP.org](#)
  - Click [“Hi, \[your name\]”](#) button in the top right.  
([Create an account](#) if you don't already have one.)
  - Check boxes next to notifications you'd like to receive.
  - Click “Submit” to save your changes.

The screenshot shows a user profile settings page for 'Exploders'. The user type is 'SPP Staff'. There are 8 selected exploder lists. The selected lists are 'Emergency Communications User Forum' and 'Filings (Public)'. The page also shows 'Stakeholder Groups' and 'Documents' sections.

**User Type:** SPP Staff

**Exploder Lists:** 8 Selected

- Electric Storage Resource Task Force
- Electric Storage Resources Steering Committee
- Emergency Communications User Forum
- Enhanced Curtailment Calculator Working Group
- Filings (Public)
- Finance Committee
- Flowgate Changes Exploder
- Formula Rate Posting Information Notification
- Generation Interconnection Studies Exploder Ad...

Profile Created: 8/25/2015

**Stakeholder Groups**  
Meeting materials, member info, and more.

**Documents**  
Filings, governing documents, and other resources.

# GRID NOTICE EXPLODER

- A new tool intended to help individuals stay apprised of changing grid conditions that affect our footprint.
- Grid Notices will define current grid conditions and indicate, through text and/or graphics, their relative level of severity.

Sent: Friday, July 30, 2021 11:47 AM

To: SPP Grid Notice (Exploder) <[gridnotice@splist.spp.org](mailto:gridnotice@splist.spp.org)>

Subject: \*\*External Email\*\* Grid Notice: SPP extending Resource Alert until 8:00 pm on July 31; New peak set on 7/28 and Conservative Operations expected to end as scheduled

**CAUTION:** This email originated from outside of the SPP network. Do not click links or open attachments unless you recognize or can verify the sender, or were expecting an email from the sender. The original sender of this email is [communication@spp.org](mailto:communication@spp.org)

SPP set a peak load record at 4:24 pm central time on Wednesday, July 28 as region-wide electricity use reached 51,037 megawatts (MW). This beat SPP's previous record of 50,662 MW set August 19, 2019.

As hot-weather conditions persist across its region, SPP has extended the current Resource Alert through 20:00 on Saturday, July 31, which was previously scheduled to end at 00:00 on July 31. The period of Conservative Operations, declared in addition to the Resource Alert, is still scheduled to end this evening, Friday, July 30 at 8:00 pm

As communicated in previous Grid Notices, a declaration of Conservative Operations is intended to inform SPP's market participants they should make available all necessary generating resources to meet the high demand SPP anticipates across its region. SPP takes this step when there is a need to operate its system conservatively based on weather, environmental, operational, terrorist, cyber or other events. To prevent conditions from worsening, SPP may commit generation to serve load earlier than during normal operations and ahead of standard day-ahead market processes. SPP sends specific instructions regarding conservative operation of generation and transmission facilities to its member utilities. Less severe Resource Alerts are communicated by SPP's operators to our members to ensure they're aware of conditions that could lead to reliability issues if they worsen. Neither status indicates that SPP requires utilities or the public across our 14-state region to conserve energy. Individuals should contact their local utility for details specific to their area.

The following chart shows the relative severity of the period of Conservative Operations in effect until 8:00 pm this evening, July 30, and that of the Resource Alert now in effect through 8:00 pm on Saturday, July 31.





# EMERGENCY COMMUNICATION USER FORUM EXPLODER

- Communication related to the Emergency Communication User Forum
- Announcements of meetings, posting of meeting materials to the SPP website, etc.

# NEWS EXPLODER

**FOR IMMEDIATE RELEASE – March 4, 2021**

**Media Contacts:**

Derek Wingfield ([dwingfield@spp.org](mailto:dwingfield@spp.org); 501-614-3394)

Meghan Sever ([msever@spp.org](mailto:msever@spp.org); 501-482-2393)



**SPP to conduct comprehensive review of February winter storm event**

Little Rock, Ark. — During a special meeting March 2, Southwest Power Pool’s (SPP) board of directors approved a plan to assess SPP’s performance, and that of its member utilities, during the February 2021 winter weather event that impacted SPP’s operations.

“We’re very proud of our ability to minimize the impacts of this historic winter storm, but not so proud that we don’t think we can learn from the event,” said Barbara Sugg, SPP president and chief executive officer. “We will learn, adapt and be better prepared for the future. Continuous improvement is part of our culture, and it extends beyond operations.”

The newly formed Comprehensive Review Steering Committee will oversee five teams comprising representatives of SPP staff, stakeholders, the independent SPP Market Monitoring Unit and the SPP Regional State Committee. Lanny Nickell, SPP executive vice president and chief operating officer, will serve as chair of the steering committee. The five teams will evaluate operational, financial, communications and other factors related to the events of the February winter storm.

The group will present an update on early findings in April and provide its final assessment and recommendations at the July 27 meeting of the SPP Board of Directors and Members Committee. The Midwest Reliability Organization, the Federal Energy Regulatory Commission and the North American Electric Reliability Corporation are also conducting separate, independent assessments in which SPP will participate.

# SPP GRID CONDITIONS PAGE



Stakeholder Center

Engineering

Markets & Operations

Western Services



Home / Markets & Operations / **Current Grid Conditions**

## CURRENT GRID CONDITIONS

### Current Grid Conditions

(Last updated Aug. 3, 2021, at 11:15 a.m. central time)

SPP is currently operating under normal conditions.

### MARKETS & OPERATIONS

[Advancing Technology](#) >

[Current Grid Conditions](#) v

- 2021 Winter Storm Review



# SOCIAL MEDIA



Twitter: SPPorg



Facebook: SouthwestPowerPool



LinkedIn: southwest-power-pool



Instagram: southwestpowerpool

# OTHER COMMUNICATION CHANNELS

Operations  
communications  
tools

Stakeholder  
outreach

ECUF meetings

Request  
Management  
System

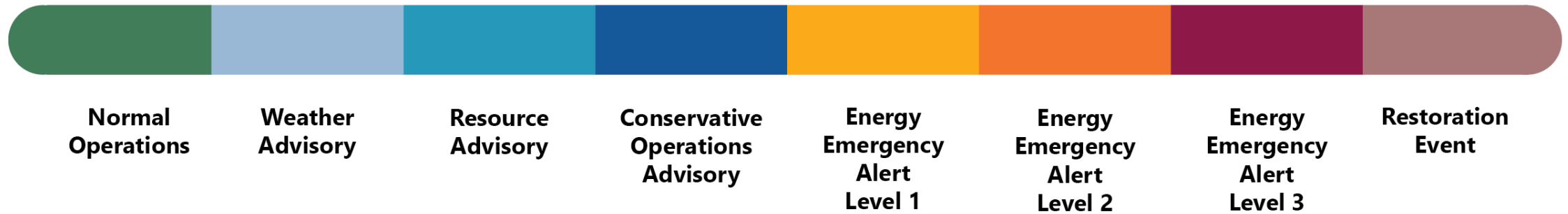


# ENERGY EMERGENCY PROCEDURES

*Working together to responsibly and economically  
keep the lights on today and in the future.*



## SOUTHWEST POWER POOL GRID CONDITIONS

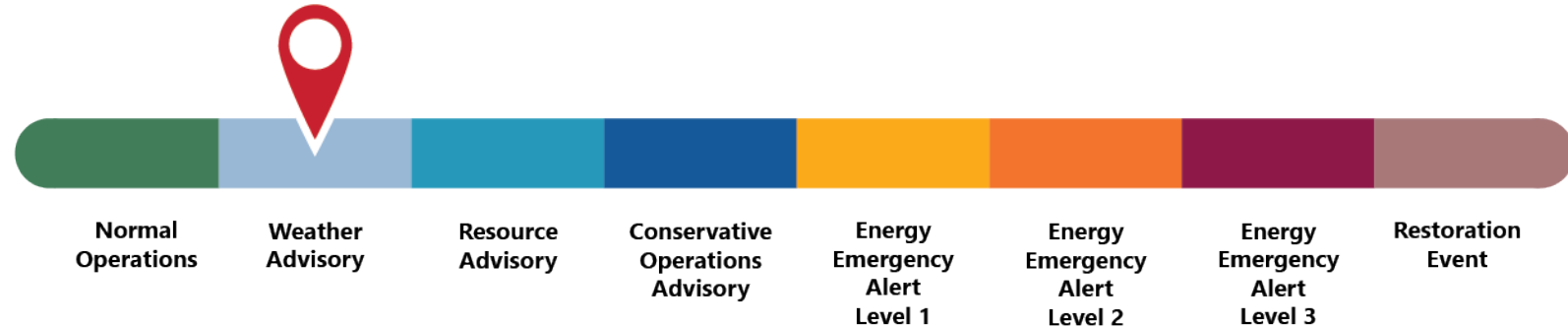


**Advisories** raise awareness and do not require general audiences to take action. SPP member utilities should follow applicable procedures.

**Alerts** indicate all available generation has been committed to meet region-wide demand. As conditions worsen, voluntary conservation or service interruptions may be necessary to prevent uncontrolled outages.



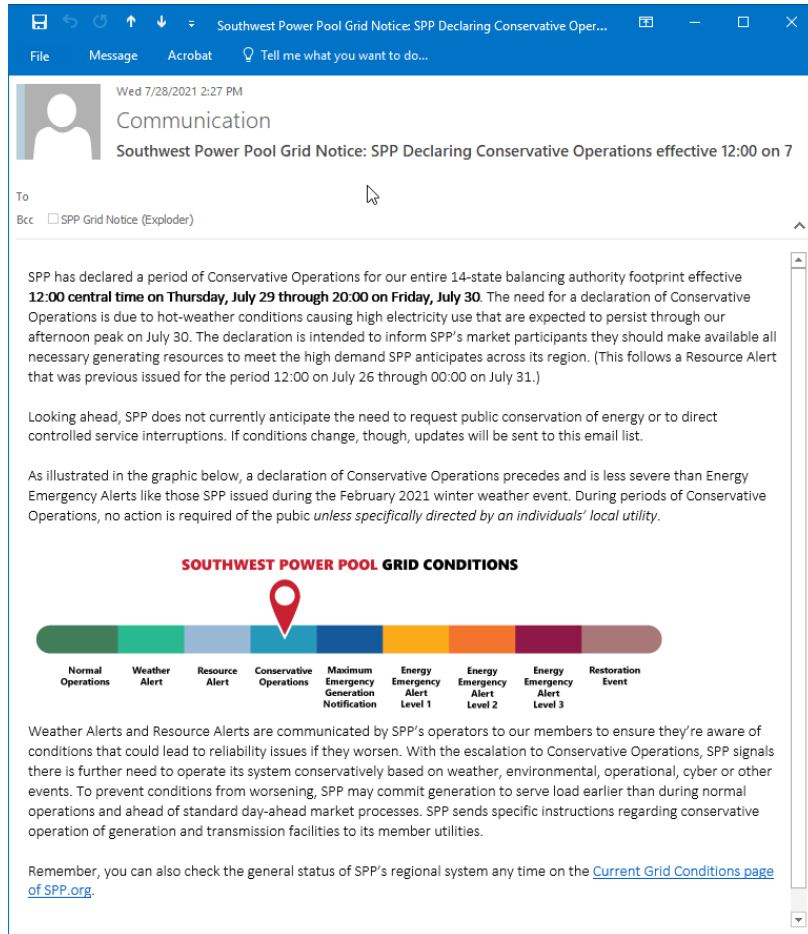
# WEATHER AND RESOURCE ADVISORIES



- Weather Advisory: Extreme weather expected in SPP's RC area.
- Resource Advisory: Severe weather conditions, significant outages, wind forecast uncertainty, and/or load forecast uncertainty are expected in the SPP BA area.

# WEATHER/RESOURCE ADVISORIES: COMMUNICATIONS

## Grid Notice Exploder



Wed 7/28/2021 2:27 PM  
Communication  
Southwest Power Pool Grid Notice: SPP Declaring Conservative Operations effective 12:00 on 7

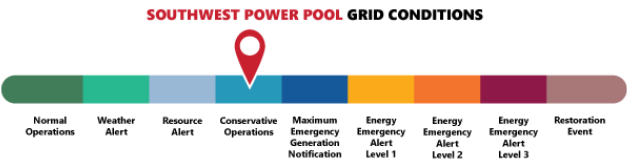
To  
Bcc  SPP Grid Notice (Exploder)

SPP has declared a period of Conservative Operations for our entire 14-state balancing authority footprint effective **12:00 central time on Thursday, July 29 through 20:00 on Friday, July 30**. The need for a declaration of Conservative Operations is due to hot-weather conditions causing high electricity use that are expected to persist through our afternoon peak on July 30. The declaration is intended to inform SPP's market participants they should make available all necessary generating resources to meet the high demand SPP anticipates across its region. (This follows a Resource Alert that was previous issued for the period 12:00 on July 26 through 00:00 on July 31.)

Looking ahead, SPP does not currently anticipate the need to request public conservation of energy or to direct controlled service interruptions. If conditions change, though, updates will be sent to this email list.

As illustrated in the graphic below, a declaration of Conservative Operations precedes and is less severe than Energy Emergency Alerts like those SPP issued during the February 2021 winter weather event. During periods of Conservative Operations, no action is required of the public *unless specifically directed by an individuals' local utility*.

**SOUTHWEST POWER POOL GRID CONDITIONS**

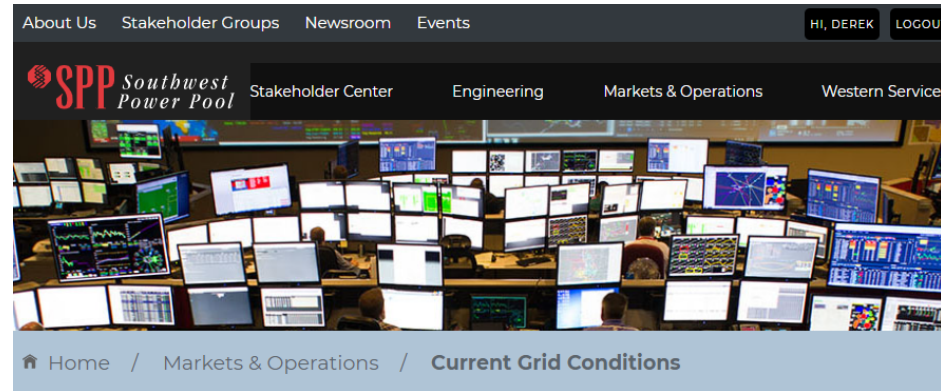


Normal Operations   Weather Alert   Resource Alert   Conservative Operations   Maximum Emergency Generation Notification   Energy Emergency Alert Level 1   Energy Emergency Alert Level 2   Energy Emergency Alert Level 3   Restoration Event

Weather Alerts and Resource Alerts are communicated by SPP's operators to our members to ensure they're aware of conditions that could lead to reliability issues if they worsen. With the escalation to Conservative Operations, SPP signals there is further need to operate its system conservatively based on weather, environmental, operational, cyber or other events. To prevent conditions from worsening, SPP may commit generation to serve load earlier than during normal operations and ahead of standard day-ahead market processes. SPP sends specific instructions regarding conservative operation of generation and transmission facilities to its member utilities.

Remember, you can also check the general status of SPP's regional system any time on the [Current Grid Conditions page of SPP.org](#).

## SPP.org/grid-conditions



About Us   Stakeholder Groups   Newsroom   Events   HI, DEREK   LOGOUT

SPP Southwest Power Pool   Stakeholder Center   Engineering   Markets & Operations   Western Services

Home / Markets & Operations / Current Grid Conditions

### CURRENT GRID CONDITIONS

#### Current Grid Conditions

(Last updated Aug. 3, 2021, at 11:15 a.m. central time)

SPP is currently operating under normal conditions.

#### Grid Notice

SPP will use the Grid Notice email exploder list to announce changing grid conditions in our footprint, including weather and resource alerts, conservative operations and energy emergency alerts.

To subscribe to receive these updates:

- Once **logged into SPP.org**, click the **"Hi, [your name]"** button in the top right of the screen to update your account preferences. (You may have to **create an account** if you don't already have one.)
- In the list of available exploders, check the box next to the one named "Grid Notice."
- Click "Submit" at the bottom of the form to save your changes.

#### MARKETS & OPERATIONS

[Advancing Technology](#) >

[Current Grid Conditions](#) v

- [2021 Winter Storm Review](#)

[Integrated Marketplace](#) >

[Market Monitoring](#) >

[Net Benefits Test](#)

[Operating Reliability](#)

[Outage Coordination](#)

[Revision Requests](#)

[TCR Markets](#)

[Marketplace Portal](#)

[OASIS](#)

# CONSERVATIVE OPERATIONS ADVISORY



- Triggered by: Ops may declare a need to operate conservatively (including postponing or canceling outages, committing long-lead resources, and other actions) based on weather, environmental, operational, terrorist, or cyber events.

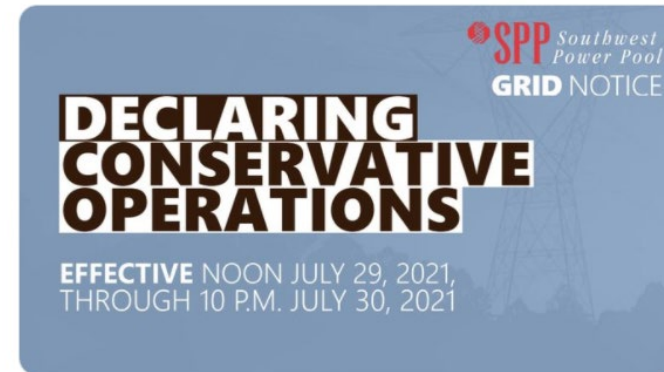
# CONSERVATIVE OPERATIONS ADVISORY: COMMUNICATIONS

## Same as above:

- Email to Grid Notice Exploder
- Update on SPP.org Current Grid Conditions page.

## New at this level:

- Social media update



- Banner on SPP.org homepage



# ENERGY EMERGENCY ALERT (EEA) LEVEL 1



- **Definition:** Declared when all available resources have been committed to meet obligations, and SPP is at risk of not meeting required operating reserves. Entities operating behind-the-meter generation should contact the SPP BA regarding capabilities and availability.



# EEA LEVEL 1 (OF 3): COMMUNICATIONS

## Same as above:

- Email to Grid Notice Exploder.
- Update on SPP.org Current Grid Conditions page.
- Post on social media.
- Update SPP.org homepage banner.

## New at this level:

- SPP will directly notify BOD/MC, MOPC, RSC, elected officials, member comms/gov't affairs reps, et al., and will schedule calls as needed and w/appropriate frequency
- Issue press release

FOR IMMEDIATE RELEASE: Feb. 15, 2021

**Media Contacts:**

Derek Wingfield ([dwingfield@spp.org](mailto:dwingfield@spp.org); 501-614-3394)

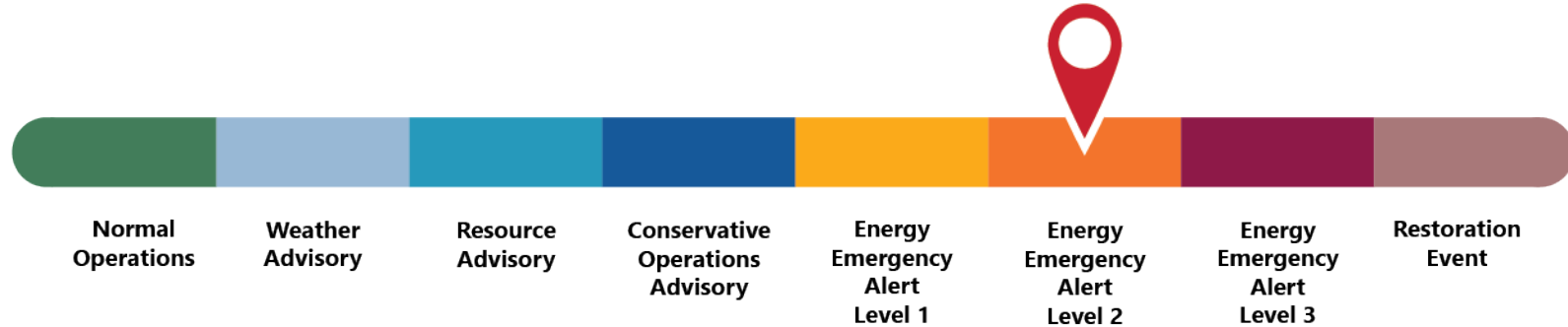
Meghan Sever ([msever@spp.org](mailto:msever@spp.org); 501-482-2393)



**Southwest Power Pool issues new energy emergency alert due to extreme cold**

Little Rock, Ark. — Extreme cold weather has created energy deficiencies in the Southwest Power Pool's (SPP) region. SPP declared an Energy Emergency Alert (EEA) Level 2 beginning at 7:22 am central time Monday, Feb. 15.

# PUBLIC APPEAL FOR CONSERVATION



- An appeal for conservation is required along with issuance of an EEA 2. If Operations determines earlier conservation may mitigate operational risk, it may be requested (not directed) earlier.

# CONSERVATION APPEAL: COMMUNICATIONS

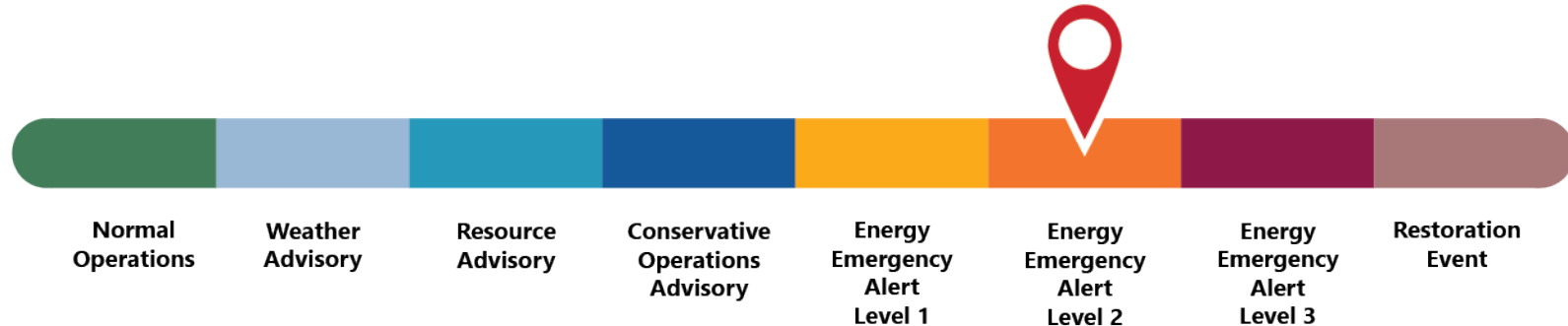
## Same as above:

- Email to Grid Notice Exploder.
- Update on SPP.org Current Grid Conditions page.
- Post on social media.
- Update SPP.org homepage banner.
- Direct notifications to stakeholders.
- Issue press release.

## New at this level:

- SPP coordinates with Transmission Operator (TOP) representatives to request or direct an appeal for public conservation. SPP will request that member reps confirm receipt of instructions and indicate the time they completed their appeal.

# ENERGY EMERGENCY ALERT (EEA) LEVEL 2



- **Definition:** Declared when SPP can no longer provide expected energy requirements and is an Energy Deficient Entity, or when SPP foresees or has implemented procedures up to, but excluding, interruption of firm load commitments. Entities operating behind-the-meter generation are expected to be on-line, if available. Entities with non-firm load shed capabilities can expect curtailments to be implemented by their Transmission Operator.

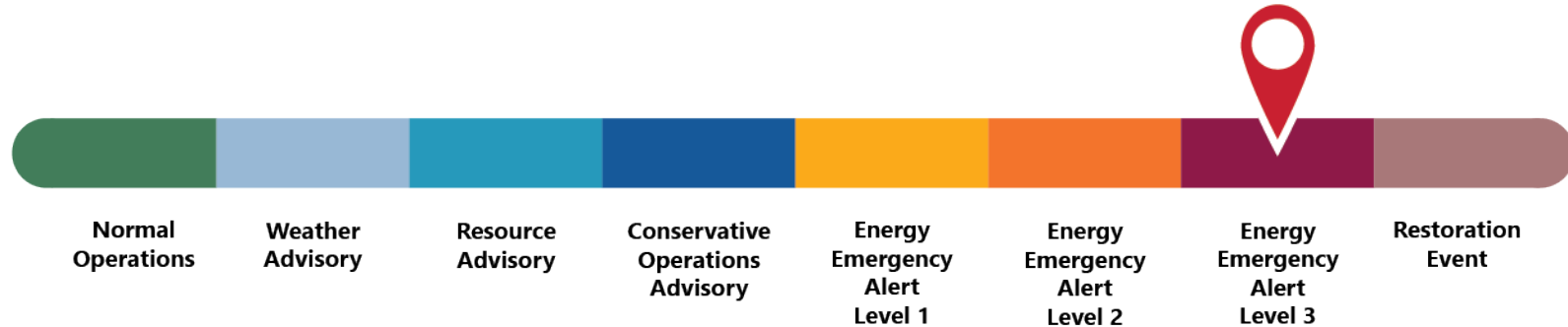
# EEA LEVEL 2 (OF 3): COMMUNICATIONS

## Same as above:

- Email to Grid Notice Exploder
- Update on SPP.org Current Grid Conditions page.
- Post on social media.
- Update SPP.org homepage banner.
- Issue press release.
- Coordinate direct outreach and calls to stakeholder groups.



# ENERGY EMERGENCY ALERT (EEA) LEVEL 3



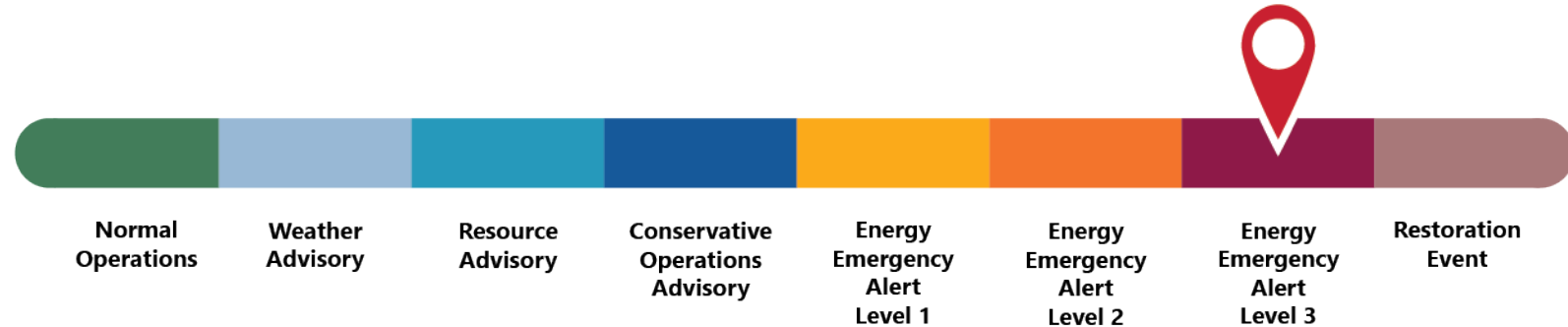
- **Definition:** SPP is utilizing operating reserves such that it is carrying reserves below the required minimum and has initiated assistance through the Reserve Sharing Group. Declared when SPP foresees or has implemented firm load obligation interruption. Before requesting an EEA 3, SPP will have already provided the appropriate internal notifications to its Market Participants. Entities operating behind-the-meter generation are expected to be on-line, if available. Entities with non-firm load shed capabilities can expect curtailments to be implemented by their Transmission Operator.

# EEA LEVEL 3 (OF 3): COMMUNICATIONS

## Same as above:

- Email to Grid Notice Exploder
- Update on SPP.org Current Grid Conditions page.
- Post on social media.
- Update SPP.org homepage banner.
- Issue press release.
- Coordinate direct outreach and calls to stakeholder groups.

# LOAD SHED / CONTROLLED SERVICE INTERRUPTION



- **Definition:** SPP deems it necessary to direct controlled service interruptions to balance region-wide demand with available generation and prevent uncontrolled outages.

# EEA LEVEL 3 (OF 3): COMMUNICATIONS

## Same as above:

- Email to Grid Notice Exploder
- Update on SPP.org Current Grid Conditions page.
- Post on social media.
- Update SPP.org homepage banner.
- Issue press release.
- Continue direct outreach and calls.

## New at this level:

- Send media advisory and conduct press briefings, coordinated with members.

