



A COMPREHENSIVE REVIEW OF SPP COMMUNICATIONS DURING THE FEBRUARY 2021 WINTER STORM

ANALYSIS AND RECOMMENDATIONS

By Southwest Power Pool

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EXECUTIVE SUMMARY

In the wake of the winter storm event of February 2021, Southwest Power Pool (SPP) conducted a full review of the organization's response. The review was administered by five teams of staff and stakeholders. This report documents the findings of The Communications Comprehensive Review (CCR) team. The CCR analyzed communications between SPP and its members' grid operators, between SPP and non-operational staff at its member companies, communications with regulators and elected officials and communications with the public throughout SPP's service territory. See Appendix A – CCR Scope of Work for a list of CCR team members and detailed information about the team's scope and responsibilities.

All teams involved in the comprehensive review process shared five goals: to assess performance during winter storm event, to engage with all stakeholders in a transparent process, to identify operational and market issues and challenges, to develop recommendations for improving future performance and to improve our joint capabilities.

Additionally, the CCR team sought to identify ways to improve the accuracy, timeliness, reach and overall effectiveness of future emergency communications. To do so, they conducted several analyses and gathered input from several specific stakeholder audiences.

First, the CCR team evaluated the timeline and content of written communications during the week of Feb. 14-20. This review helped the team identify where messaging could have been clearer, where the sequence of communications activities was either helpful or problematic, why some messages were more timely than others and whether the appropriate audiences received the right information at the right time.

Second, the team conducted surveys of specific stakeholder groups to gauge their assessment of SPP's storm-related communications. The team surveyed:

- Members of the Regional State Committee (RSC) and Cost Allocation Working Group (CAWG), and representatives of SPP's member and market participant companies, to gauge the overall effectiveness of SPP's emergency communications.
- SPP's officers and directors to assess the time they spent communicating with individual stakeholders during the winter storm and to identify opportunities to make more effective use of leadership resources during emergency events.

Third, SPP staff and stakeholders conducted interviews with television, radio and newspaper journalists who reported on SPP's activities during the winter storm. The team sought to learn, whether SPP's public relations activities during the winter storm were effective and appropriate.

Fourth, SPP facilitated discussions with stakeholders to learn more about the impacts of SPP's communications activities. Over a series of virtual meetings, the CCR explored stakeholders'

experiences and emergency response activities, and sought context for SPP's event data, and identified lessons learned and best practices that could be applied in future emergencies.

Lastly, the CCR team reviewed the effectiveness of SPP's public communications tools: SPP's website, social media channels, press releases and email distribution lists. Staff reviewed and shared SPP's website analytics, including up and downtime, traffic and frequently visited pages; social media analytics regarding the reach and engagement of storm-related posts; and reports of newspaper, web, television and radio coverage of SPP's storm response.

KEY FINDINGS RELATED TO COMMUNICATIONS

Overall, SPP's stakeholders were satisfied with and felt appropriately informed by SPP's emergency communications efforts. In a survey of 155 representatives of SPP's member and market participant organizations, 80% rated the overall effectiveness of SPP's communication during the winter storm either "effective" or "highly effective." In a survey of SPP's RSC and CAWG, 85% of respondents rated SPP "effective" or "highly effective." More than 70% of stakeholder respondents and 55% of RSC and CAWG respondents agreed or strongly agreed that SPP's communications increased their trust in the organization's credibility.

There were exceptions to stakeholders' satisfaction with SPP's emergency communications. Some individuals did not receive information in as timely a manner as they would have liked. In many cases, this occurred because SPP sent communications to particular points of contact at its stakeholder organizations and that information was not further disseminated within those organizations.

Some stakeholders were unsure what to do with the information they received during the event. While SPP and its member operators had already developed and practiced response procedures, some other stakeholders were unsure of their roles during the event. This event marked the first time some audiences in the SPP region had heard of or from SPP.

The electric utility industry is complex, and SPP's role is usually "behind-the-scenes." General audiences (including the public, media and elected officials) lack an understanding of the variables that affect the reliable delivery of electricity on a regional scale. SPP tends to communicate using technical language that may be useful for industry professionals but contains too much jargon for general audiences.

The winter weather event exposed a need for better coordination between SPP, members and distributors to communicate about load-shed. As the event worsened and threat of outages became real, audiences who were previously unaware of SPP's role became interested in the RTO's load-shed procedures. They wanted to know what factored into SPP's decisions regarding energy emergency alerts, calls for conservation and load curtailment. A spike in interest and a need to communicate complex concepts to new audiences proved a challenge.

Post-event analysis confirmed that SPP's transmission-operating and load-serving member utilities all received and responded to load-shed communications in a timely manner. Utilities quickly brought the system into balance and SPP restored load quickly and effectively.

Long after the outages, SPP and its members continued to field questions from distribution companies, regulators, reporters, and the public about SPP's authority to curtail load, SPP's and its members' roles in choosing what load to curtail, and why curtailing load was necessary.

RECOMMENDATIONS TO THE BOARD

The CCR made identified four organizational-level recommendations to be shared with SPP's board of directors at the July 2021 SPP board meeting. In addition to these recommendations, SPP's Communications staff will address department and team-level recommendations from the CCR to improve emergency communication practices, processes and tools. The complete list of CCR recommendations are presented in this report's Recommendations section.

Table 1: Summary of recommendations to the board

TIER	CATEGORY	RECOMMENDATION
2	Action	SPP will update its Emergency Communications Plan annually and share as appropriate with stakeholders. The plan will include: <ul style="list-style-type: none">Processes that ensure stakeholders have a dependable way to receive timely, accurate and relevant information regarding emergencies.Plans to drill emergency communications procedures with all relevant stakeholders.Procedures for ensuring SPP's contact lists stay up-to-date.
2	Assessment	SPP staff will develop a proposal for needed enhancements to communications tools and channels, including but not limited to enhancements to SPP's websites, development of a mobile app, automation of communications processes, etc.
3	Assessment	SPP staff will work with the Corporate Governance Committee to consider the formation of a stakeholder group whose scope would include discussion of matters related to emergency communications.
3	Action	Staff, to increase public awareness of and satisfaction with SPP, will develop materials intended to educate general audiences on foundational electric utility industry concepts and SPP's role in ensuring electric reliability.

COMMUNICATIONS REVIEW PROCESS

The CCR gathered documentation and data of relevant SPP communication from Feb. 4 through Feb. 20, and conducted an analysis of the processes, policies, staffing and resources used to conduct them. Analysis and recommendations covered four categories of communications:

- Operational communications
- Stakeholder communications
- Governmental and regulatory communications
- Public communications (press, end-users and general public)

For each category, the CCR analyzed:

- What legal or standard requirements exist for SPP communication
- How SPP's communication during the event met requirements
- What procedures exist for additional communication
- SPP's performance of internal procedures and processes
- Communication performed by peers during the event
- Other communication needs (perceived / expressed / relative) of operators, stakeholders, government and public related to the event.

For each category, the CCR made recommendations to improve:

- *Internal* communication processes:
 - Interdepartmental communication
 - Flow and responsibility of communication
 - Resources provided for communication
- *External* communication processes:
 - Effectiveness and timeliness of external communication
 - Inclusion in each type of communication
 - Stakeholder-driven communication process improvement
 - Education about RTO emergency procedures and processes
- *Member-conducted* communication processes:
 - Resources provided to SPP members to aid in communication
 - Recommendations for standardizing public appeals and other processes

For topics beyond the timeline and scope of the Comprehensive Review process, the CCR made some recommendations for additional analysis and recommendations, including topics for organizational groups or task forces to address in the future.

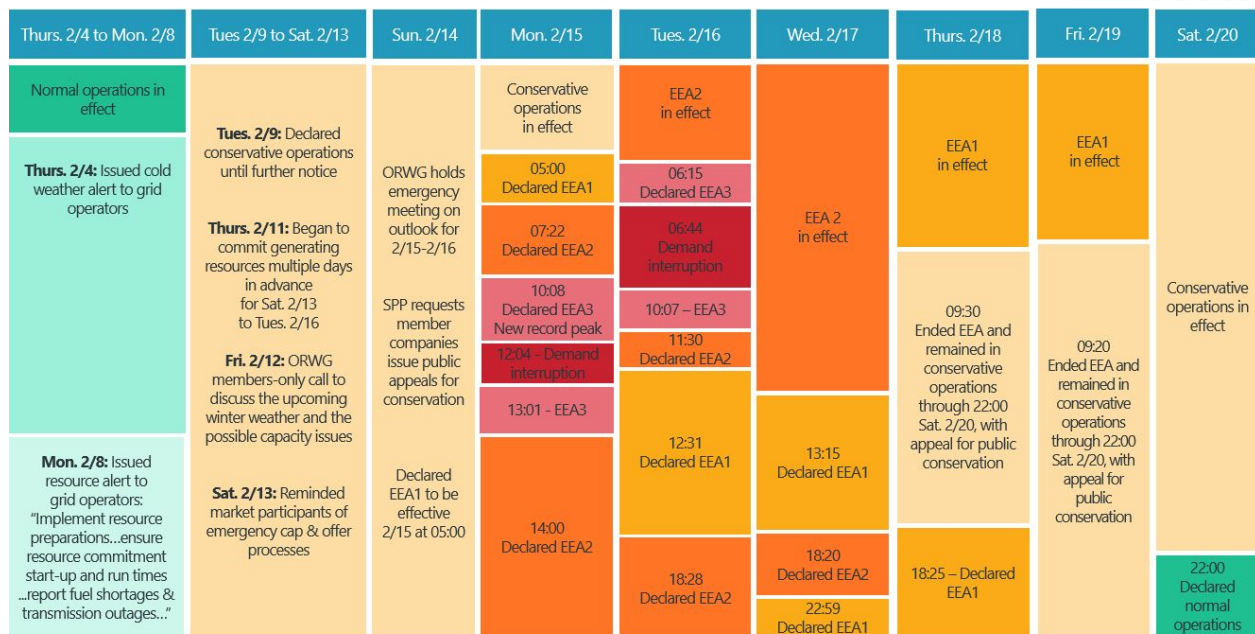
TIMELINE OF COMMUNICATIONS

Beginning Feb. 4, 2021, SPP issued several weather alerts, conservative operations declarations and emergency energy alerts. Figure 1 shows the times each of these alerts was declared.

Figure 1: a timeline of operational communication from Feb. 4 to Feb. 20, 2021.

TIMELINE OF OPERATIONAL COMMUNICATIONS: FEB. 4-20, 2021

Time blocks are not to scale



Each of the following sections examines the timeline of SPP's communications with different audiences related to these operational events.

OPERATIONAL COMMUNICATION

Operational communication differs from other types of communication because it is almost exclusively between SPP operations and member company operations staff. This operator-to-operator communication happens daily under normal operations, but was thrust into the public eye during the winter weather event.

SPP used its emergency communication tool, xMatters, for the majority of operational communication mentioned below. Other communication channels used were email, phone calls and the Open Access Same Time Information System (OASIS) an Internet-based information and scheduling system for electric power transmission services.

On Feb. 4, SPP used xMatters to issue a cold weather alert to member company operation staff. By Feb. 8, they had elevated the alert to a resource alert to "implement resource preparations," and "ensure resource commitment startup and run times... report fuel shortages and transmission outages."

As conditions worsened, they declared a period of conservative operations Feb. 9, which meant SPP be conservative in its management of the system to prevent an emergency.

By Feb. 11, SPP began to commit generation resources multiple days in advance. The next day, the Operating Reliability Working Group (ORWG) held a members-only call to discuss the upcoming winter weather event and the possibility of capacity issues. On Feb. 13, SPP reminded market participants of emergency cap and offer processes.

On Feb. 14, SPP held an emergency meeting of the ORWG to discuss the outlook for Feb. 15-16. SPP operations announced the region would enter an energy emergency alert (EEA) level one effective 5 a.m. Feb. 15.

Conditions deteriorated quickly, and by 7:22 a.m. Feb. 15, SPP operations declared an EEA2. At this point, SPP became energy deficient but was still able to meet minimum reserves. By 10:08 a.m., SPP declared an EEA3, which meant SPP was unable to meet the minimum contingency reserve requirement due to extremely low temperatures and high demand. Simultaneously, it set a new winter peak record of 43,661 MW. In its communication, SPP noted they would attempt to delay controlled interruptions of service for as long as possible, but by 12:04 p.m., the first load shed event occurred. Load was soon restored, and by 2 p.m., it had downgraded the alert to an EEA2.

Conditions held overnight, but as demand increased on the morning of Feb. 16, SPP was again unable to meet minimum reserves and declared an EE3 at 6:15 a.m. SPP initiated an additional controlled interruption of service at 6:44 a.m. to mitigate risk to the system. By 11:30 a.m., load had been restored, and SPP declared an EEA2, followed by an EEA1 at 12:31 p.m. Due to increased demand, SPP moved back to an EE2 at 6:28 p.m.

The region remained in an EEA2 for much of the day Feb. 17, with calls for conservation still in effect. At 1:15 p.m., SPP downgraded the alert to an EEA1. At 6:20 p.m., it moved back into an EEA2, and back to an EEA1 by 10:50 that evening.

The EEA1 remained in effect into Feb. 18. At 9:30 a.m., SPP announced a return to conservative operations, but by 6:25 p.m., it declared another EEA1 due to increased demand.

The EEA1 ended Feb. 19, and SPP again entered into conservative operations with a called for continued energy conservation. By 2 p.m. Feb. 20, SPP entered normal operations status, which means it had enough energy and reserves to meet demand.

STAKEHOLDER COMMUNICATION

SPP used various platforms to reach stakeholders, including alerts from its emergency communication tool, xMatters, emails to exploders and distribution lists, daily webinar briefings, social media and website updates.

On Feb. 14, after days of operations and market communications, SPP issued a press release about the widespread and extreme cold weather and its impact on system conditions. In this release, SPP declared an EEA1 and requested members and market participants conserve energy for 48 hours, beginning Feb. 15. That afternoon, SPP hosted the first daily webinar for member communications staff to provide updates to members, preview public messaging, answer questions and align messaging.

These daily briefings helped communication efforts tremendously. SPP coordinated to help members communicate with their end-users who reached out to SPP and to equip members with consistent language, resources and materials to explain the event and SPP's role to a public audience.

Additionally, SPP officers hosted calls with members, reached out to individuals and provided open and direct lines of communication.

Early on the morning of Feb. 15, SPP issued an EEA2 and officers hosted an emergency briefing with stakeholders, including MOPC representatives, to discuss grid conditions. By midmorning, SPP issued an EEA3 with calls for controlled interruptions of service.

The communications department issued alerts via xMatters, press release, social media and the SPP corporate website. These alerts explained the recently issued EEAs, a timeline of alerts and noted load interruptions were implemented only as a last resort to preserve the reliability of the electric system. Shortly after these alerts were issued, communications held another daily briefing webinar with member communication staff to discuss the evolving situation.

SPP sent an additional communication the afternoon of Feb. 15, once load had been restored to announce the EEA had been downgraded to level two.

On the morning of Feb. 16, SPP used the same communication channels to announce a return to an EEA3 with controlled interruptions of service. A daily briefing webinar was held for member communication staff. Later that morning, the communications department issued two alerts in rapid succession announcing a return to EEA2 and then to EEA1.

That evening, communications sent alerts notifying stakeholders of a return to an EEA2 with renewed calls for energy conservation.

On the morning of Feb. 17, SPP sent alerts reminding stakeholders of the remaining EEA2 and encouraged the region to continue energy conservation. Communications held a third daily briefing webinar with member communication staff. By early afternoon, the alert had been

downgraded to an EEA1, and SPP issued alerts regarding the new emergency level. That evening, staff sent additional communications announcing a return to EEA2. Further communications were sent late that evening when conditions improved and SPP returned to an EEA1.

Early Feb. 18, SPP sent alerts announcing the end of the EEA1 and a return to conservative operations. Another message followed shortly announcing the return of the EEA1.

SPP communications sent out an alert Feb. 19, notifying stakeholders that SPP had ended the EEA1 and once again returned to conservative operations.

SPP's communication efforts were greatly helped by the years of preparation staff had done before the event to build relationships with member communication staff. This included an annual testing of its emergency communication system, developing contact lists and hosting annual communication conferences.

GOVERNMENT AFFAIRS AND REGULATORY COMMUNICATION

As conditions started to deteriorate, SPP staff alerted member company government affairs representatives and Federal Energy Regulatory Commission (FERC) staff about worsening conditions in our footprint. This was done through emails, phone calls and webinars.

The initial press release sent Feb. 14, went to the Regional State Committee (RSC), member government affairs and regulatory staff, FERC leadership and other exploder subscribers.

On Feb. 14, SPP regulatory staff emailed the FERC chair and senior staff about the upcoming EEA1.

As EEA levels escalated Feb. 15, SPP initiated regular communication directly with regulators and public officials. SPP sent two email updates to the RSC and the Cost Allocation Working Group (CAWG), and the RSC and Market and Operations Policy Committee (MOPC) received a special briefing by SPP officers and regulatory staff.

SPP government affairs staff sent three email updates to U.S. congressional offices and two email updates to governors' offices and state energy offices. Member government affairs staff participated in the daily communications briefing webinars, and the two groups collaborated to develop united messaging for the duration of the event.

SPP regulatory staff sent five email updates to the FERC chair, commissioners and senior staff and hosted two calls with the FERC chair's adviser and senior staff.

On Feb. 16, SPP staff contacted the Governor of Arkansas and the Arkansas Commission, the Iowa Governor's office and the IUB, the U.S. Department of Energy and the Oklahoma Director of Energy.

SPP staff sent three email updates to the RSC and CAWG, including a morning update, a notice of upcoming peak demand and notification of the end of the initial load-shed event. SPP regulatory staff sent three email updates Feb. 17, two email updates Feb. 18 and two email updates Feb. 19.

SPP regulatory staff sent five email updates to the FERC chair and staff Feb. 16, three email updates Feb. 17, two email updates Feb. 18 and one email update Feb. 19.

From Feb. 16 to Feb. 18, SPP staff provided daily email updates to member staff and to congressional, governors and state energy offices. The final daily email update to member company government affairs staff was sent Feb. 19.

On Feb. 19, SPP's legal and regulatory teams filed a request for a limited waiver the delay the issuance of S7s.

PUBLIC COMMUNICATION

During the winter weather event, SPP sent nine press releases and 10 grid updates. These were sent to various groups including stakeholders, individuals signed up for the news release exploder, media outlets with whom SPP had developed relationships, member company communication staff and posted to www.spp.org. When possible, member company communication staff were given previews of releases to create consistent messaging.

SPP communication staff received an influx of media inquiries at the onset of the event. In addition to our regular media contacts, we received inquiries from a large number of small, local news outlets across the footprint. The most inquiries came from Oklahoma, but all SPP states were represented. We also received inquiries from media outside the footprint.

Staff responded to some of these individually, but it quickly became apparent the request load was too large to respond to all inquiries individually. At that point, SPP decided to hold daily press briefings. SPP held three daily "State of the Grid" briefings for news media and stakeholders with 924 attendees across three days. These livestreams were broadcast by some affiliate networks, and recordings of each briefing were posted on social media.

SPP's response to the winter weather event was covered by a mix of national outlets (New York Times, Bloomberg, Washington Post), industry publications and local media outlets for a reach of more than 6 million. From Feb. 14 to Feb. 20, we had more than 8,000 press mentioned, an increase of more than 2,500%.

SPP saw increased traffic to our website. After the first EEA3 was declared Feb. 15, we experienced rapid increases in website traffic, slowing or interrupting site access for some users.

These spikes in traffic often followed social media posts, especially about EEAs or impending outages. Because of the increased traffic to our website, SPP created a grid conditions page where we posted current alerts, definitions of alert levels and a timeline with each new event.

Simultaneous website users peaked at 2:54 p.m. Feb. 15 around 10,000. A typical peak is averages about 550 users. Staff doubled server capacity twice Feb. 15 and had to throttle traffic Feb. 16.

Throughout the storm, SPP posted updates to Twitter, Facebook, LinkedIn and Instagram. The first post to social media about the storm was the Feb. 14 press release. Between Feb. 14 and Feb. 20, we posted 42 Twitter tweets, 24 Facebook posts, 23 LinkedIn posts and 18 Intragram posts.

On Twitter, we gained 5,479 followers and had 3.5 million engagements with our posts. On Facebook, we gained over 12,000 page likes and had over 160,000 engagements. On Twitter, we got more than 100 replies a day from Feb. 15-17, and on Facebook one post Feb. 16 received more than 600 comments directly to the post.

Facebook engagement escalated quickly, peaking Feb. 15 and began to decline Feb. 16. Twitter impressions peaked quickly and declined more slowly. Link clicks fell off after the first day, partly due avoiding directing traffic to a busy website. LinkedIn and Instagram had far fewer engagements than Facebook or Twitter.

Social media spikes often followed posts about EEAs or impending outages. Additional spikes were caused by news media sharing our content, which helped us reach a broader audience. As media and member companies shared our content, we saw an increase in general public's interest in our content.

We received a mix of positive and negative feedback directly from social media users during the event. Sentiment scores for Facebook and Twitter averaged -67.4% from Feb. 14-19, peaking at -80% Feb. 17. On Feb. 20, sentiment turned positive at 29.4%.

SPP communications posted five videos during the winter weather event, including the three recording of the "State of the Grid" news briefings and two "explainer" videos. The explainer videos were titled "Who is Southwest Power Pool?" and "Why was power interrupted during this storm?" and featured SPP officers. These video postings resulted in 8,800 views, totaling over 1000 hours, and 139 new YouTube subscribers, more than doubling our pre-storm total.

Most of the external traffic to these videos came from social media. Facebook provided the largest source of traffic, followed by Twitter, LinkedIn and YouTube. Google searches, spp.org and the sharing of content by news media all helped additional viewers find our videos.

ANALYSIS OF COMMUNICATIONS

The CCR analyzed communication during the event, discussed observations and reviewed lessons learned from communication with each of SPP's critical audiences.

Over the course of three months, the team of 30 stakeholders and staff met six times to examine information and suggest recommendations for improvement. The team met with a larger group of stakeholders present at the daily communications and government affairs webinars during the winter weather event to review findings and get feedback on their process.

The team answered key questions to determine whether SPP conduct all required communication and follow internal procedures, examine how SPP and its members communicated and whether unmet communication needs still exist.

SPP communications surveyed multiple groups to solicit feedback on communication during the winter weather event, and the team compiled analysis from surveys and joint staff and stakeholder meetings into a single list of recommendations. The full survey results are found in the Appendices C, D and E.

OPERATIONAL COMMUNICATION

When examining operator-to-operator communication, the team looked at many data points including survey results, analysis of the existing EEA process and comments and feedback from operational staff.

SPP and non-operational stakeholders should routinely drill load-shed and other procedures to prepare for future events. SPP should encourage consistent assessment, updates and testing of member emergency plans and communication with attention to critical infrastructure.

Stakeholders felt SPP should have provided earlier operator notifications to individuals in member organizations outside of operations staff. They should create an operational event early notification process, using RCOMM, OASIS or other operational system alerts, for key stakeholders. During long events, SPP operations should provide interim updates to member company operations staff.

If operational system alerts are utilized for non-operations staff and the public, SPP should develop talking points, graphics and other materials that simplify and explain these alerts for broader audiences.

SPP should designate dedicated subject matter experts for communication during events.

STAKEHOLDER COMMUNICATION

While there were many things that SPP did well when communicating with stakeholders, the CCR identified areas for improvement.

SPP benefited from its relationship with member company communication staff, but more preparation is needed ahead of any future events. SPP should reassess who receives emergency alerts and tools for updating contacts. They should consider defining a “calling tree” procedure that clearly assigns responsibilities for communicating with specific audiences and implement a process to regularly update contact lists.

Many stakeholders felt communication should have been earlier and more varied. SPP should identify opportunities to send members notices about more alert levels and provide more detailed event information to points of contact identified at each organization. SPP should consider more effective and frequent communications on other aspects of the event, including market and repricing activities.

There are many efforts SPP and member companies can do together to improve communication to stakeholders, including coordination of press releases and media briefings. The planning of media briefings should be done with members and local utilities with enough time for them to coordinate their own local press briefings as a follow-up. They should also work to develop educational materials that explain SPP’s and members’ load-shed procedures or responsibilities.

GOVERNMENT AFFAIRS AND REGULATORY COMMUNICATION

SPP identified opportunities for improvement when communicating with government affairs staff and regulatory officials.

Early in the storm, SPP included government relations staff on communications to member company communication staff. This helped to ensure messaging was getting to the right individuals. In the future, SPP should examine additional opportunities for collaborative communication between SPP’s government affairs and regulatory teams and consider including member government affairs and regulatory staff earlier and on more notifications.

Contact list management impacted SPP’s ability to reach government affairs and regulatory representatives. Some lists were outdated due to election-related turnover. SPP may more frequently update contact, improve contact-update processes for public officers, or consider tools to allow self-updates.

More frequent joint calls and webinars with the RSC, CAWG, member government affairs and regulatory staff and elected officials would ensure more consistent communication and address some concerns from stakeholders who felt communication to these groups was insufficient. SPP

should have clear emergency points of contact for RSC and other public officials, and examine opportunities for rapid notification of certain alerts from operations to commissioners.

SPP should develop educational materials and resources about SPP, RTO/TOPs and energy emergencies for government affairs and regulatory staff, state commissioners, congressional offices and governors' offices. Staff should look for opportunities to remind officials of the benefits of RTO services in event communications.

PUBLIC COMMUNICATION

SPP gained invaluable insight from managing social media during the winter weather event that will help navigate social media platforms in the future, both during normal operating circumstances and emergencies.

During a multiday event, day one is the most critical time to engage social users. Spikes in engagement are short-lived, and SPP should use these temporary increases in engagement to their advantage to reach as many people as possible. SPP should focus on using the most effective platforms, and SPP received the most engagement on Twitter and Facebook. In the future, SPP should utilize Twitter and Facebook for real-time notifications since they provide the most engagement. Graphics that explain the status of the grid and what to do will get high engagement. To combat negative sentiment scores, SPP can change messaging to better empathize with end-user challenges and combat misinformation by collaborating with news outlets and members.

Because there was limited engagement on LinkedIn and Instagram, it may not be worth the time to monitor and create real-time content for these platforms during emergencies. These platforms may be better utilized for post-event information or pre-event educational materials. Since Facebook proved to be the greatest driver of traffic to videos, SPP should prioritize video sharing on that platform primarily.

SPP received positive feedback on both the daily briefing and explainer videos. While the explainer videos received more views than videos posted under typical circumstances, the recordings of the daily "State of the Grid" briefings were the most watched. Audiences wanted to know who SPP is, but they wanted to know what was happening more. In light of this information, SPP should consider promoting daily briefing information on social media platforms before they begin. SPP can better utilize video in emergencies by preparing videos in advance for a public audience that are tailored to emergency events.

SPP staff interviewed four reporters from a local newspaper, local public radio, industry publication and a local TV station anchor to gather feedback on its communication with media. This audience represented a variety of media outlets and covered the majority of the SPP footprint. Each of the reporters indicated they got their news from a mix of sources including SPP's social media, emails from SPP, its website and communication with member companies and would likely continue to use a variety of sources in the future. All reporters said they would

benefit from educational and other related materials posted on the SPP website before the event or sent in conjunction with press releases.

In the wake of the storm, there may be demand for direct education from SPP to news media, and SPP should consider an annual media day in collaboration with members to educate the public on who SPP is, who are their members are, the benefits they provide and how they work together to protect the grid.

SPP received such a flood of media requests at the onset of the winter weather event that the “State of the Grid” press briefings became critical for responding to media and providing public updates. While feedback from media told SPP these briefings were helpful, SPP should consider a mix of morning and afternoon briefings to better meet the needs of the different types of reporters.

SPP’s media briefings were often livestreamed by local news outlets. Knowing this, SPP should work to create messages tailored for the public, and ensure speakers receive proper media training. To reach a broader audience at briefings, SPP can improve promotion of briefings and its news distribution sign-up process.

The electric industry is complex, and information regarding the status of the grid can be difficult to communicate. This event highlighted the need to improve public emergency communication. Press releases should use clear, simple terms and be free of industry jargon. All communication should provide up-to-date information, local utilities impacted by the event, and simple actions to take.

SPP’s website is a valuable source of information, but winter weather event was a unique test of its capabilities. It experienced rapid increases in website traffic, hindering the distribution of information. From this, SPP learned how large traffic spikes can be during emergency events and what should be done to mitigate against the risk of negative impacts to the site due to increased traffic. SPP should increase server capacity ahead of weather events and more clearly label banners on the site. Throttling and file reduction can help to reduce disruption further.

SURVEYS

STAKEHOLDER SURVEYS

SPP conducted surveys to solicit feedback on its communication during the winter weather event. The audiences for this survey were the RSC, CAWG, SPP officers, member company communication, government affairs and regulatory staff and the Texas Office of Public Utility Counsel.

Overall, survey respondents felt SPP’s communication during the event was timely, clear, understandable and appropriate in its frequency. They felt SPP leadership demonstrated

necessary knowledge and expertise during the event, and were consistent in the delivery of their message. They felt SPP staff were available and willing to answer questions during the event.

Though stakeholders felt the communication didn't clearly explain actions they should have taken during the winter weather event, they still felt SPP's communications during the event increased trust in the credibility of the RTO.

SPP scored the lowest in regards to communication with regulators and other elected officials. Respondents felt the RTO and members could have more effectively shared responsibility when communicating to these groups.

Survey respondents echoed sentiments from the team discussions. They felt advanced notification was needed, including a public notification before the event, more clarity about each EEA and broadcast alerts of load shed notices. Many mentioned the possibility of SPP smartphone app designed to provide information about the grid and notify users of emergency alerts, and a load-shed drill for regulators.

SPP LEADERSHIP SURVEY

The CCR team also issued a survey to all SPP officers and directors to assess how officers and directors communicated with individual stakeholders during the Feb. 2021 winter storm event, what worked well and opportunities to improve in the future.

The survey found that all officers spent some time – though that time varied widely – speaking with individual stakeholders. Only a portion of directors spent time speaking with individual stakeholders. On average, officers spent twice as much time speaking with stakeholders as directors.

Both groups identified preparedness (including data and communications materials), candor and regular group calls with stakeholders as “what worked well.” Group calls seemed to help with the volume of stakeholders who desired contact, though many still wanted individual outreach.

Officers who were in frequent contact with stakeholders felt there was a need for an organized response by a larger group of officers and other staff to meet individual stakeholder needs.

Complete survey results are included in the Appendices C, D and E.

RECOMMENDATIONS

DEFINITIONS OF RECOMMENDATION TIERS

Recommendations from the Comprehensive Review process are categorized according to a three-tier ranking system defined as follows:

- **Tier 1:** Recommended actions, policies, or assessments deemed necessary and urgent to avoid severe reliability, financial, operational, compliance or reputational risks.

These recommendations are expected to address system-related root causes of the 2021 winter event or mitigate occurrence of future extreme system event impacts.

Upon board approval, work associated with implementation of these recommendations shall begin as soon as possible and be prioritized by the organization at the highest level.

Full implementation of some of these recommendations may be subject to further approvals as prescribed by SPP bylaws.

Implementation of these recommendations may require expenditure of unbudgeted funds.

- **Tier 2:** Recommended actions, policies, or assessments deemed necessary to minimize the risk of severe reliability, financial, operational, compliance or reputational consequences associated with extreme system events.

These recommendations may not address system-related root causes of the 2021 winter event or mitigate occurrence of future extreme system event impacts, but are important and expected to significantly improve SPP's response to extreme system events in the future.

Work associated with these recommendations should be prioritized along with other organizational initiatives.

- **Tier 3:** Recommended actions, policies, or assessments that would improve SPP's response, communications, and public perception during extreme system events, but are not necessary or urgent.

Work associated with these recommendations should be prioritized for implementation along with other organizational initiatives.

RECOMMENDATIONS FROM THE CCR



1. **Maintenance and Enhancements to SPP's Emergency Communications Plan**
To ensure SPP is adequately prepared to respond effectively to a variety of potential emergencies, it should **continue to maintain its Emergency Communications Plan and review it at least every year**. The plan should be approved by SPP's officer team, and it (or emergency procedures defined in other documents) should prescribe guidelines that consider or address the following:

- a. **SPP's operators should provide periodic updates** to member operations contacts during events that last more than a day, even if circumstances have not substantially changed.
- b. In load-shed events, **each call for the curtailment of load should be clearly differentiated** with timestamps, amount of load to be curtailed, and labels that distinguish it from previous communications.
- c. As appropriate, SPP should **include in its communications to various stakeholder audiences updates regarding reliability, market performance, repricing and other settlements activities**, and any other aspects of emergency events that may impact them.
- d. SPP should **clearly define roles and responsibilities among its staff related to communicating with specific stakeholder audiences** including but not limited to member representatives; the public; elected officials in SPP's service territory; members of SPP's board of directors, Members Committee and Regional State Committee; and representatives of FERC and NERC.
- e. Early in an event, SPP should **identify subject matter experts who are responsible for providing trustworthy and vetted information to communicators**, executives and others officially representing the organization to external audiences.
- f. SPP should **coordinate press briefings in consideration of media deadlines and members' own media relations efforts**.
- g. With regard to press releases and briefings, **SPP should provide information related to its role as a regional organization** (e.g., factors that contributed to the regional emergency, scope and scale of the emergency's impact, processes for responding to the emergency, etc.), and **members should have the primary responsibility for commenting on local conditions** in the specific areas they serve.
- h. SPP should **establish procedures that ensure its stakeholders (including member representatives, members of the RSC and CAWG, and others) have appropriate opportunities to receive information, get answers to questions, and coordinate activities with SPP and among themselves**, such as through periodic briefings over the duration of an emergency event.
- i. SPP should **use all appropriate and effective communications channels and platforms to reach its stakeholder audiences**, and should **ensure communications are consistent across all of them**.

- j. In its communications intended for the general public, SPP should **strive to provide or direct people toward accurate and up-to-date information, helpful resources, contacts at local utilities, and clear instructions for recommended or required actions on their part.**

TIER 2

2. **Coordination of Real-Time Alerts and Other Emergency Messages**

To ensure the appropriate stakeholders receive relevant, timely and accurate information in an emergency, by the end of 2021 SPP should **develop a plan to ensure stakeholders have a dependable way to receive both real-time alerts and more detailed and ongoing contextual information about the events' root cause and expected impacts**, members' required actions and SPP's response efforts, among other relevant topics.

TIER 2

3. **Emergency Communications Drills**

To ensure SPP's stakeholders understand their roles in the execution of SPP's Emergency Communications Plan, the SPP communications department should **share relevant parts of the document and continue to drill emergency communications procedures** with members' communications representatives.

TIER 2

4. **Non-Operations Participation in Emergency Procedure Drills**

To ensure all relevant parties understand and are prepared to carry out their responsibilities in a load-shed event, by the end of 2021, SPP should **develop a plan to ensure non-operations staff have the opportunity to participate in end-to-end load-shed drills and drills of other emergency scenarios**. Potential participants should include SPP and stakeholder staff in roles related to communications, regulatory matters, government affairs and customer relations. Plans should also consider whether external parties such as regulators and elected officials, members of the media, and other interested members of the industry should be allowed to participate to best ensure an effective response to future events and address potential gaps in communications.

TIER 2

5. **Automation of Operations Alerts**

To better ensure all appropriate parties receive critical, emergency-related information, before the beginning of the 2023 budget-planning cycle, SPP should **examine opportunities to automate the processes by which R-COMM, OASIS and other operational system alerts are sent to key non-operational staff** (e.g., via app, text or a similar "push notification" method).

TIER 2

6. **Defining SPP's Role in Members' Load-Shed Plans**

To better ensure all stakeholders understand the impacts of and participate in load-shed procedures, within a year, SPP's Operations staff should **develop a plan to encourage consistent assessment, updates and testing of members' load-shed plans** and communication with attention to critical infrastructure.

TIER 3

7. **Formation of Emergency Communications Stakeholder Group**

To facilitate the continuous maintenance and evolution of SPP's emergency

communications plans, by the end of 2021, SPP staff should work with the Corporate Governance Committee to **consider the formation of a stakeholder group whose scope would include discussion of matters related to emergency communications.**

TIER 2

8. **Enhancements to Communications Tools**

To ensure SPP has the appropriate tools to communicate quickly, consistently, and dependably with stakeholders in an emergency, by the end of 2021 SPP staff should **develop a proposal for any needed enhancements to its communications tools and channels.** These could include but are not limited to enhancements to SPP's websites, development of a mobile app, automation of communications processes, etc.

TIER 3

9. **Development of Educational Materials**

To increase public awareness of and satisfaction with SPP, within a year SPP staff should **develop materials intended to educate general audiences on foundational electric utility industry concepts and SPP's role in ensuring electric reliability.** These should specifically address topics including public appeals for conservation, load-shed procedures, SPP's role as a reliability coordinator and balancing authority, and the relationship between SPP and its stakeholders as it relates to electric reliability, and the reliability and economic benefits SPP provides its region.

TIER 2

10. **Contact List Management**

To ensure SPP and its stakeholders are equipped to communicate effectively with one another in an emergency, within 90 days SPP should **develop a plan to co-manage with stakeholders an accurate contact list of member representatives, regulators, elected officials, and other stakeholders** with whom they should partner in an emergency.

CONCLUSION

Throughout event, SPP used a number of communication channels to keep members and public throughout its service territory apprised of changing grid conditions. Operators followed clearly defined protocols for coordinating with member utilities. They acted, as they always do, in accordance with applicable NERC standards.

Overall, SPP's stakeholders were satisfied with and felt appropriately informed by SPP's emergency communications efforts. SPP's surveys of stakeholders showed strong ratings of the effectiveness of SPP's communications, a majority of respondents agreed that SPP's communications increased their trust in the organization's credibility.

There were, however, opportunities to improve communication practices for future emergency events. Prior to the cold weather event, SPP's communication and updates to members was

beneficial and helped prepare the members for the event. Once the event began, the need for frequent communication increased, as did the size and complexity of SPP's audience.

SPP and its members and other stakeholders can improve communications by working together to improve communication with broad audiences and to clearly delineate communications roles during emergency events. A coordinated communication effort can reach all critical audiences with the information they need to take appropriate action, and to reduce misunderstanding.

APPENDIX A: CCR SCOPE OF WORK

SPP is conducting a full review of the organization's response during the winter storm event of February 2021. The review will be conducted by five teams of staff and stakeholders led by a Comprehensive Review Steering Committee (CRSC). The CRSC will be chaired by Lanny Nickell, SPP COO and include Larry Altenbaumer, SPP Board Chair; Denise Buffington and Joe Lang, operational review; Kristie Fiegen, Regional State Committee (RSC) review; Betsy Beck and Tom Dunn, financial review; Keith Collins, Market Monitoring Unit (MMU) review; and Barbara Sugg, SPP President & CEO.

This collaborative review will examine operations, financial, regional state commission, Market Monitoring Unit, and communications performance during the event and will report overall assessments and lessons learned to be reported to the board of directors in July 2021.

The common goals of all five teams are to:

- Assess performance during winter storm event
- Engage with all stakeholders in a transparent process
- Identify operational and market issues and challenges
- Develop recommendations for improving future performance
- Improve our joint capabilities

The Communications Comprehensive Review (CCR) team includes SPP staff and representatives from stakeholder organizations. This team will review protocols and coordination of:

- Operational communications
- Public communications (media, social media, general public)
- Governmental communications
- Stakeholder communications

The team will gather documentation and data of all relevant SPP communication from Feb. 4 through Feb. 20, and conduct an analysis of the processes, policies, staffing and resources used to conduct them. The report will also include examples and analysis of communication conducted by member companies. The team will assess SPP's performance of both required and additional communication provided by SPP. The team may also gather new information through surveys, facilitated discussions and interviews. The team expects to survey or interview member communicators and government affairs representatives, regulators, elected officials, member and SPP operations staff, media and other key stakeholders.

CCR TEAM

The following stakeholders and SPP staff will form the core of the CCR team.

External: Stakeholders <i>This list includes all invited stakeholders as of March 25, 2021. The final list will be updated based on availability and participation.</i>	Internal: SPP Staff Support Team <i>Additional staff will support efforts. This list includes those invited to form the initial staff support team for CCR.</i>
<ul style="list-style-type: none"> • Alternative Power – Advanced Power Alliance: Steve Gaw • Arkansas – Arkansas Electric Cooperatives: <ul style="list-style-type: none"> ○ Rob Roedel ○ Kirkley Thomas • Federal Agencies & West – Western Area Power Administration: Lisa Meiman • Independent Power Producer – EDP Renewables: David Mindham • Kansas and Missouri – Evergy: <ul style="list-style-type: none"> ○ Gina Penzig ○ Laura Lutz • Montana and Dakotas – Basin Electric: Jean Schafer • Nebraska – Nebraska Public Power District: <ul style="list-style-type: none"> ○ John McClure ○ Mark Becker • Oklahoma – OG&E: <ul style="list-style-type: none"> ○ David Kimmel ○ Usha Turner ○ Rae Rice • RSC – North Dakota Public Service Commission: <ul style="list-style-type: none"> ○ Randy Christmann ○ Victor Schock • Texas & Louisiana – American Electric Power (AEP): Peter Main 	<ul style="list-style-type: none"> • CCR Team Lead – Mike Ross • Communications and Public Relations <ul style="list-style-type: none"> ○ Derek Wingfield ○ Kayli Farris ○ Meghan Sever ○ Russell Carey • Compliance – Carl Stelly • Customer relations – Don Martin • Government Affairs <ul style="list-style-type: none"> ○ Dustin Smith ○ Jillian Janik • Legal – Tessie Kentner • Operations – CJ Brown • Regulatory <ul style="list-style-type: none"> ○ Kara Fornstrom ○ Lee Elliott • Training – Leslie Sink

TIMELINE OF MEETINGS

March 25, 2021, at 3:00 p.m. – First Meeting of SPP CCR Staff

- Staff will review scope of work and plan for first stakeholder meeting
- Staff will assign responsibilities for document and data gathering
- Staff will plan for future meetings

March 30, 2021, at 9:00 a.m. – First Stakeholder Meeting

- The group will review the scope of work for Communications Comprehensive Review
- The group will conduct an initial review of types and volume of data collected
- Staff will collect feedback for any proposed revisions to the scope of work
- Stakeholders will review a proposed biweekly schedule for future meetings:
- Stakeholders will identify points of contact for other stakeholders not on team

April through May 2021 – Staff and Stakeholder Meetings

- SPP staff will schedule and host biweekly virtual meetings for both internal and stakeholder teams throughout the review process.
- SPP staff and stakeholders will work collaboratively to draft a report that includes an overview, documentation, analysis, lessons learned and recommendations.

Other Key Dates:

- **May 28** – Draft of Communications Comprehensive Review report due.
- **June 18** – Final draft of Communications Comprehensive Review report is due.
- **July 16** – Final combined report for the Comprehensive Review process is due.
- **July 26-27** – The complete Comprehensive Review report will be presented to SPP's board of directors at its quarterly meeting.

Other meetings:

- SPP staff will schedule and conduct a webinar for communications and government affairs staff of member companies to debrief the first meeting, provide points of contact and how to engage with review team.
- SPP staff will interview 2-3 members of the media to assess SPP's clarity of communication and identify improvements for media relations during future events.
- SPP staff will collaborate with the Regional State Commission review to conduct an assessment of communication with regulatory commissioners.
- SPP staff will schedule additional webinars to update member company staff throughout the review and report development process.

APPENDIX B: CCR TIMELINE & TOPICS

Meeting Timeline with Brief Agendas

- Friday, April 16, 2021, 9 a.m. to 11 a.m. – **Topic: Overview and Operations**
 - Overview of winter storm event and communications
 - Presentation on operator communications during the event
 - Preliminary staff recommendations and prompted discussion
 - Discussion of surveys and other outreach
- Tuesday, April 20 @ 3:00 – Webinar for Member PR and Gov. Affairs Staff
- Friday, April 30, 2021, 9 a.m. to 11 a.m. – **Topic: Stakeholder Communications**
 - Review collected recommendations related to operations
 - Presentation on Stakeholder communications during the event
 - *Presentation of Communications and Government Affairs survey results*
 - Preliminary staff recommendations and prompted discussion
- Week of May 3 – Webinar for Member PR and Gov. Affairs Staff
 - *Review survey results, updates and feedback*
- Tuesday, May 11, 2021, 1 p.m. to 3 p.m. – **Topic: Governmental Communications**
 - Review collected recommendations related to stakeholder communications
 - Presentation on Government and Regulator communications during the event
 - Preliminary staff recommendations and prompted discussion
- Monday, May 24, 2021, 9 a.m. 11 a.m. – **Topic: Public Communications**
 - Review collected recommendations related to Gov/Reg communications
 - Presentation on Public communications (site, social, traditional media) during the event
 - Preliminary staff recommendations and prompted discussion
- May 28, 2021 – Initial Draft of CCR Report Due
- Monday, June 7, 9 a.m. to 11 a.m. – Sixth CCR Team Meeting – **Review of All Recommendations**
 - Review compiled recommendations for all areas.
 - Discuss themes and other potential recommendations to add for final report.
- Week of June 7 – Webinar for Member PR and Gov. Affairs Staff
 - High-level overview of compiled recommendations
- **June 18, 2021 – Final Draft of CCR Report due to SPP Communications**
- Tuesday, June 22, 3 p.m. to 5 p.m. – **Debrief Final Report / Early Outcomes from Other Paths**

APPENDIX C: RSC & CAWG SURVEY

EXECUTIVE SUMMARY

The SPP communications department launched the RSC - Winter Storm Event Survey March 30, 2021, and closed the survey April 9, 2021. Staff distributed survey invitations to the 10 members of the Regional State Committee (RSC), the 11 members of the Cost Allocation Working Group (CAWG), and extended an invitation to complete the survey to the Texas Office of Public Utility Counsel (OPUC).

Ten RSC commissioners, nine members of the CAWG, and one member of the Texas OPUC completed the survey. The distribution of respondents by state is shown in Table 1.

On a scale of zero to four, with zero being "Highly Ineffective" and four being "Highly Effective," survey respondents gave an average rating of 2.95 when rating SPP's overall effectiveness during the winter storm event.

Table 1: Respondents by State

State	Respondents
Arkansas	2
Iowa	2
Kansas	2
Louisiana	2
Missouri	1
Nebraska	2
New Mexico	2
North Dakota	2
Oklahoma	2
South Dakota	2
Texas	1

Table 2: Overall Effectiveness

Q1. How would you rate the overall effectiveness of SPP's communication during the winter storm event?		
Respondent Type	Average Rating	Equivalent Score
Commissioners (10)	3.00	Effective
CAWG representatives (9)	2.88	Effective
Other (Texas OPUC, 1)	3.00	Effective
All Respondents	2.95	Effective





For individual categories of communication performance, the lowest ratings were given to the performance of SPP's members, and to assessments of how SPP and its members shared responsibility of communication with government and regulatory officials.

Some of the themes staff identified in open ended responses were: a desire to improve advance notification, a need for more consistent communication from SPP and members, a need for clear sources of information and points of contact, a desire to improve the frequency of communication during an event, a need for more collaboration to reach overlapping audiences, and an opportunity to educate regulators, members and the public about these types of emergency events and how to respond.

SURVEY RESULTS BY QUESTION



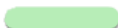

The survey asked respondents to their agreement with the following statements below.

Q4: SPP's communication during the winter storm event was timely.

		Response percent	Response total
Strongly Agree		15%	3
Agree		65%	13
I don't know		5%	1
Disagree		15%	3
Strongly Disagree		0%	0





Statistics based on 20 respondents;

Q5: SPP communicated with appropriate frequency during the winter storm event.

		Response percent	Response total
Strongly Agree		10%	2
Agree		60%	12
I don't know		15%	3
Disagree		15%	3
Strongly Disagree		0%	0





Statistics based on 20 respondents;

Q6: Communication from SPP during the winter storm event was clear and understandable.

		Response percent	Response total
Strongly Agree		15%	3
Agree		70%	14
I don't know		5%	1
Disagree		10%	2
Strongly Disagree		0%	0





Statistics based on 20 respondents;

Q7: SPP effectively used a variety of communication methods (email, press releases, webinars, phone calls, website updates and social media) during the event.

		Response percent	Response total
Strongly Agree		20%	4
Agree		40%	8
I don't know		35%	7
Disagree		5%	1
Strongly Disagree		0%	0






Statistics based on **20** respondents;

Q8: SPP's leadership demonstrated necessary knowledge and expertise during the event, and were consistent in the delivery of their message.

		Response percent	Response total
Strongly Agree		25%	5
Agree		65%	13
I don't know		5%	1
Disagree		5%	1
Strongly Disagree		0%	0



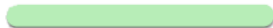


Statistics based on **20** respondents;

Q9: SPP's communications clearly explained the actions stakeholders should take during the winter storm event.

		Response percent	Response total
Strongly Agree		5%	1
Agree		50%	10
I don't know		35%	7
Disagree		5%	1
Strongly Disagree		5%	1



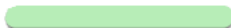
Statistics based on **20** respondents;

Q10: SPP's communications during the event increased my trust in the credibility of SPP.

		Response percent	Response total
Strongly Agree		10%	2
Agree		45%	9
I don't know		35%	7
Disagree		5%	1
Strongly Disagree		5%	1

Statistics based on **20** respondents;

Q11: SPP staff were available and willing to answer my questions during the event.

		Response percent	Response total
Strongly Agree		25%	5
Agree		45%	9
I don't know		30%	6
Disagree		0%	0
Strongly Disagree		0%	0






Statistics based on **20** respondents;

Q12: SPP's member organizations effectively communicated actions they were taking during the winter storm event.

		Response percent	Response total
Strongly Agree		15%	3
Agree		25%	5
I don't know		25%	5
Disagree		20%	4
Strongly Disagree		15%	3

Statistics based on **20** respondents;

Q13: SPP and its member organizations effectively shared responsibility for communicating with regulators during the event.

		Response percent	Response total
Strongly Agree		5%	1
Agree		25%	5
I don't know		40%	8
Disagree		20%	4
Strongly Disagree		10%	2

Statistics based on **20** respondents;

Q14: SPP and its member organizations effectively shared responsibility for communicating with other elected officials during the event.

		Response percent	Response total
Strongly Agree		5%	1
Agree		15%	3
I don't know		75%	15
Disagree		0%	0
Strongly Disagree		5%	1

Statistics based on **20** respondents;

COMMENTS & OPEN-ENDED RESPONSES

The following are respondents' unedited comments in response to several open-ended questions included in the survey. Responses such as "N/A," "None," etc. have been excluded.

Q15: Optional: Use this space to add comments or explanations for any of your multiple choice responses.	
Respondent Type	Comments
Commissioner	I may have strongly agreed with more of these (4,5,6, and 8) except I do not know enough yet about the organization's communications with shareholders, as indicated by my answer to #9. I would agree with #7 except I am unfamiliar with the press releases and social media efforts. My disagreement with #10 is not because of communications, it is because of SPP's now proven resource INADEQUACY.

Q15: Optional: Use this space to add comments or explanations for any of your multiple choice responses.

Respondent Type	Comments
Commissioner	I think SPP did a good job of sending out updates on Energy Emergency Alert Levels and what actions were being taken to the SPP members. Possibly more early communications 3-4 days before the weather event should have taken place to put the public on alert. Not sure how much of this would be SPP's responsibility or the members.
Commissioner	Some of the options for answers to the questions were not suited to what I would have responded, so I used I don't know many times. If the answers would have been some of the time or worded in a different way, my responses might be more meaningful.
Commissioner	SPP did an excellent job with their crisis management plan. Stakeholders worked together in our state to inform the public regarding on-going facts of the cold weather event (IOU's, power supply cooperative, member-owned electric cooperatives, PUC, etc.). The RSC member notified the governor's office in our state with the facts. The transmission operators (WAPA) needs to do a better job communicating. It appeared they were not as prepared to be able to "shed" load by using appropriate guidelines (hospitals, etc). I am unaware of how SPP and member organizations shared responsibility to communicate with elected officials and regulators. The RSC member took on the responsibility to communicate with members to ensure the facts were accurate before the PUC made comments to the media. I believe that we worked together to pull through a crisis and did what needed to be done without placing blame. We kept the public informed on the issues that lead to the crisis and the public trusted the stakeholders in our state without public outcry. SPP staff was so busy keeping the grid operating, that I did not think it was my place to call them to ask questions.
Commissioner	Once I figured out what was occurring in my state I received strong consistent guidance and conversation from SPP and its staff. As I did not know the questions to ask, I failed to represent my State in an appropriate manner and I believe this is because I did not know the questions to ask on Thursday and Friday of the event. Had I heard on those two days the meaning of each level of the EEA and the corresponding expectation from the Transmission Owner Operators(TOP) I would have been better able to communicate the information to my Governor. Turning off an entire city that then lost its gas and electricity for 4 hours in 21 below zero weather, should have had some planning and direct communication from the TOP.
CAWG Representative	My biggest concern with the communication was that some of the terms are difficult to understand for the average citizen. Also, having SPP communicate when most people haven't even heard of them until a crisis is difficult. I think SPP needs to ensure individual utilities are communicating appropriately and give them tools to do so. Also, felt like staff was unnecessarily excluded from certain meetings. I found out my commissioner was on a call and he was asking me questions about information when we didn't have it at all.
CAWG Representative	My commissioners were heavily involved - I was not - in communication efforts. So to the best of my knowledge SPP was out front and newscasters were provided ample information. I generally agree that since I was operating like most other citizens that I had a very good idea of what was facing all of us, largely due to SPP.

Q15: Optional: Use this space to add comments or explanations for any of your multiple choice responses.	
Respondent Type	Comments
CAWG Representative	For "I don't know" responses, I had no personal knowledge of the communication addressed in the question.
CAWG Representative	The biggest communication issue that needs improvement is around the timing and coordination of when SPP declares the load shed and when the LSE executes that load shed and the related advance communication to be made to commissioner and state emergency officials and the load being shed concerning where those load sheds are to occur and for how long
CAWG Representative	At the start of the cold weather event (weekend to Monday morning) the communication from SPP was lacking. After the kinks were ironed out, the communications were drastically improved.
Texas OPUC	<p>I thought the Webinar Lanny did was excellent and very helpful with getting out the message to a lot of people in a short amount of time. SPP appeared credible.</p> <p>We had to call our member utilities personally to get information about how many customers were without service and the actions they were taking. It was difficult for us to understand how our customers were impacted without calling them directly. I think the companies could have done a better job communicating, but I think SPP itself did a good job.</p>

Q16: How did SPP communicate effectively during the winter storm event?	
Respondent Type	Comments
Commissioner	Most of my communications were through emails and the SPP website, along with some questions that were answered by SPP staff in a timely manner. I believe it was effective. I found the website information very enlightening, especially the Price Contour Map and the Generation Mix graphics.
Commissioner	E mails and phone calls. There were regular webex updates also.
Commissioner	The EEA alert emails were very helpful. Lanny's longer emails to all stakeholders and a couple communications from Paul to the RSC gave me helpful details and context to communicate to the Governor's office and the public. I could have used more of this information at the time but understand reliable information was scarce. I also understand SPP personnel may have had other pressing operational duties, and communications with regulators were not their only duty.
Commissioner	The initial emails and short rapid group calls were effective and appreciated. As the storm unfolded, it was unclear who was communicating with whom. Our public information officer and Governor seemed to have information often before I did related to SPP. It seems there needed to more coordination and a central point of contact to keep regulators apprised especially as we were dealing with emergency orders related to utilities, etc.

Q16: How did SPP communicate effectively during the winter storm event?	
Respondent Type	Comments
Commissioner	All commissioners in our state received the emails from SPP, which was very helpful when we did media interviews. The virtual press conference for the media was very helpful, so we all received the accurate facts. SPP's Twitter account did a great job keeping everyone informed with the facts. The Friday, Feb. 12th briefing by Bruce and Lanny at the RSC meeting helped us prepare for a "rough week" ahead.
Commissioner	Once I knew what to ask I received answers to all my questions. Although some of the answers were - we can't give that to you - I received answers.
Commissioner	Webinars with Q&A, emails, calls, social media. They were responsive to questions.
Commissioner	Most of my communications was from an IOU.
Commissioner	There are numerous steps in the process and if the highest stage is reached there have been numerous warning already given.
CAWG Representative	Communication from SPP to me as a CAWG rep during the event felt timely, appropriate and detailed to me. I am unaware of what communication SPP had with its member utilities.
CAWG Representative	I believe using multiple avenues and keeping messages simple, clear, consistent, and timely were keys.
CAWG Representative	SPP openly communicated the conditions it was experiencing and the steps it was taking to address the conditions.
CAWG Representative	Email updates, both auto generated and directly sent
CAWG Representative	Frequent, timely and informative updates.
CAWG Representative	I think Paul, Ben, Sam, and Lee did a great job of being available and fielding questions from Commissioners and staff. The communications from Monday morning and beyond were great.
CAWG Representative	SPP create a page on their website and communicated effectively on this platform during the event.
Texas OPUC	I appreciated the email notifications that explained what was happening. I also thought the Webinar that Lanny did was excellent and a great way to communicate with a lot of people in a short amount of time.

Q17: What could SPP do to improve communication during future emergency events?	
Respondent Type	Comments
Commissioner	I do not have recommendations right now, but I may after we receive feedback on the communications with other stakeholders.
Commissioner	I actually think communications from members to general public needs greatest improvement. Radio coverage when event started put blame on SPP for the rolling blackouts, partially because members said SPP had ordered them. This is true, but not enough other information provided as why, how long, etc.

Q17: What could SPP do to improve communication during future emergency events?	
Respondent Type	Comments
Commissioner	As a Commissioner and RSC member, it is not completely clear who my point of contact was at SPP. It would have been good to receive a regular check-in from someone - perhaps daily during the emergency conditions. That could have just been an email to the entire RSC with some new data/info and a list of contacts we could reach out to.
Commissioner	Hoping to provide input for that through the internal review process as I listen to what others suggestions might be as well. I do think education on emergency operations and how things work from a high level from SPP to members would be helpful.
Commissioner	Increase the number of virtual press conferences when a crisis event last several days. Remind commissioners to view SPP's Twitter account for up-to-date information during an emergency. Future events: Add a "before briefing" like Feb. 12th RSC Meeting if there are forecasts for difficulties in demand/supply. Have a "key contact" for RSC/CAWG members to communicate with during emergencies and develop a Q&A so there are not 14 states asking for 14 different reports.
Commissioner	Emergency preparedness training with states, staff and commissions. I want to see the procedures for notice and the responsibilities of the Transmission owner operators.
Commissioner	Social media verbiage was still too insider. Break down messaging so that average person understands.
Commissioner	Learn from this one.
Commissioner	Notice of length of outage from SPP members.
CAWG Representative	I don't have any suggestions for SPP at this time, as I am not aware of any communication shortfalls on their part.
CAWG Representative	If there was an issue it appeared to be the result of having zonal transmission coordinators making decisions that were not well communicated.
CAWG Representative	The most effective communication I personally received was not from SPP or one of its members but from Kansas Gas Service in the form of direct emails into my personal email account as a KGS customer. As someone who has little interest in social media, this form of communication is not useful for me. To the extent SPP could have developed emergency bulletins for its members to use to keep customers informed similar to what KGS did, I think the gravity of the situation would have been better impressed upon the customers to take energy conservation measures. Also, could television programming (weather alert banners) similar to what is used for weather emergencies, i.e., tornadoes, have been used perhaps Sunday and Monday to better inform viewers of the energy emergency and what steps they could take?
CAWG Representative	The biggest communication issue that needs improvement is around the timing and coordination of when SPP declares the load shed and when the LSE executes that load shed and the related advance communication to be made to commissioner and state emergency officials and the load being shed concerning where those load sheds are to occur and for how long

Q17: What could SPP do to improve communication during future emergency events?	
Respondent Type	Comments
CAWG Representative	SPP needs to send notifications to the RSC and CAWG members. They should not depend on the utilities to inform their state regulators. SPP may also want to include regulators in the GridEx Exercises (including testing the notifications of the regulators). SPP may also want to look at creating a phone app similar to MISO's and PJM's apps that can push out notifications.
CAWG Representative	Send out overall communication to exploder and maybe create state specific exploders also.
Texas OPUC	I would have appreciated knowing how SPP was doing before it got close to EEA. Neighboring entities (such as ERCOT and MISO) were having obvious issues, and I found myself wondering how SPP was doing early on in the event.

Q18: What question(s) do you have about SPP's communication during the winter storm event that you would like staff to address during the April 26, 2021, RSC education session?	
Respondent Type	Comments
Commissioner	How did SPP coordinate load shed plans with LSEs immediately prior to and during the emergency events? Are their load shed plans approved in advance by SPP? If not, are they at least reviewed? What did SPP do to warn generators to review fuel supplies, prepare their facilities for cold weather, and evaluate their load shed plans?
Commissioner	Would you put out earlier alert messages if this were to happen again? Did members respond to the messages that were issued?
Commissioner	I hope to listen more as what was done and then my questions would proceed from there.
Commissioner	How can SPP develop guidelines for transmission operators to develop priorities for load shed (that doesn't include hospitals, etc)? How are elected officials communicated with during an emergency?
Commissioner	Notice requirements and expectations SPP has for each TOP to communicate throughout its service territories. Documentation on substations that will be shut off and notice to individual utilities.
Commissioner	The dividing line between of responsibility of SPP and SPP members.
CAWG Representative	Do member utilities have requirements for communication to their customers or partner companies that SPP has put in place?
CAWG Representative	With regard to zonal decisions is there a pre-planned protocol for both determining and then communicating likely curtailments that provide some measure of having customers being prepared? Is there assurance that certain high priority customers (homes, hospitals, critical infrastructure, etc.) could be identified in a pre-preparation to assure critical service not be interrupted?
CAWG Representative	The biggest communication issue that needs improvement is around the timing and coordination of when SPP declares the load shed and when the LSE executes that load shed and the related advance communication to be made to commissioner and state emergency officials and the load being shed concerning where those load sheds are to occur and for how long
CAWG Representative	Does SPP do communication drills with its transmission owners to shed load? If so, how often? Has SPP ever present the EOP to either CAWG or the RSC?

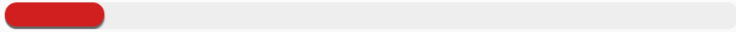

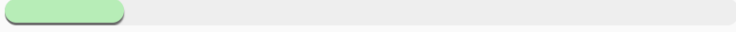
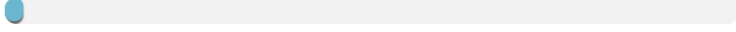
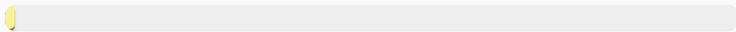
APPENDIX D: STAKEHOLDER SURVEY

SURVEY RESULTS BY QUESTION

Q1. Which of the following applies to you? (check all that apply)		
Respondent Type	#	%
Communications staff at an SPP member organization	31	20%
Government affairs staff at an SPP member organization	22	14%
Regulatory staff at an SPP member organization	17	11%
Operational staff at an SPP member organization	45	29%
Market staff at an organization participating in SPP's Integrated Marketplace	15	10%
Roster member of an SPP working group or committee	58	37%
Members Committee member of SPP	25	16%
SPP board member	7	5%
SPP staff	0	0%
Communications staff at an organization that is not a member of SPP	2	1%
Other role at an organization that is not a member of SPP	4	3%
Other role at an SPP member organization	16	10%
Other	8	5%
All Respondents (155 respondents)	250	100%

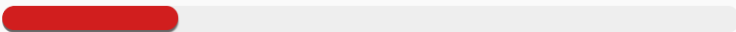

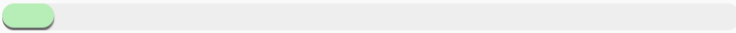

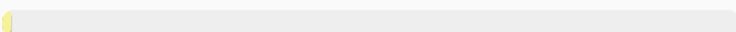
Q1. In what state(s) does your organization operate?		
State	#	%
Oklahoma / OK	53	14%
Kansas / KS	46	12%
Nebraska / NE	40	10%
Texas / TX	33	9%
Arkansas / AR (and one response of "AK" probably intended to be "AR")	27	7%
Missouri / MO	27	7%
South Dakota / SD	25	7%
New Mexico / NM	22	6%
Iowa / IA	21	5%
Louisiana / LA	17	4%
Minnesota / MN	17	4%
North Dakota / ND	17	4%
Montana / MT	12	3%
Wyoming / WY	13	3%
Colorado / CO	9	2%
Arizona / AZ	1	0%
California / CA	1	0%
Nevada / NV	1	0%
Utah / UT	1	0%
All Respondents (152 respondents)	383	100%

Q3: How would you rate the overall effectiveness of SPP's communication during the winter storm event? (154 responses)

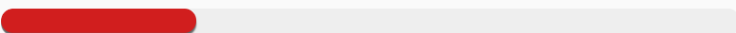

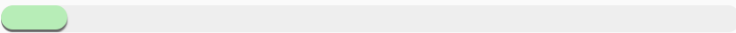
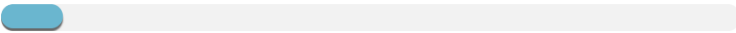
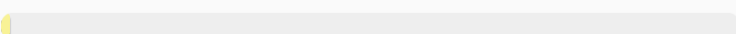
		Response percent	Response total
Highly Effective		13.64%	21
Effective		66.23%	102
Neutral		16.23%	25
Ineffective		2.6%	4
Highly Ineffective		1.3%	2

The survey asked respondents to their agreement with the following statements.

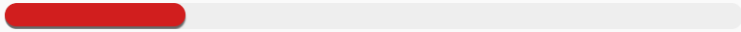

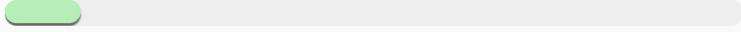
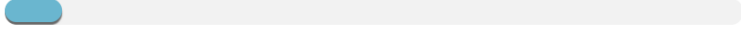
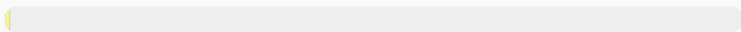
Q4: SPP's communication during the winter storm event was timely. (155)

		Response percent	Response total
Strongly Agree		23.87%	37
Agree		58.71%	91
I don't know		7.1%	11
Disagree		9.03%	14
Strongly Disagree		1.29%	2

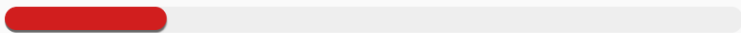

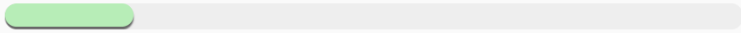

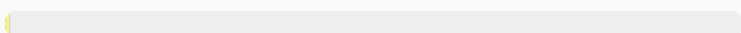
Q5: SPP communicated with appropriate frequency during the winter storm event. (155)

		Response percent	Response total
Strongly Agree		26.45%	41
Agree		54.84%	85
I don't know		9.03%	14
Disagree		8.39%	13
Strongly Disagree		1.29%	2

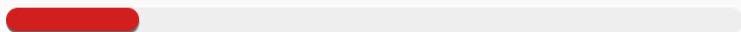

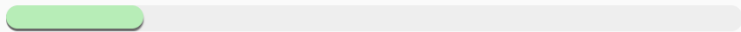

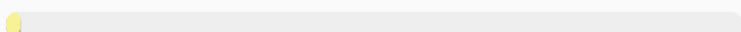
Q6: Communication from SPP during the winter storm event was clear and understandable. (155)

		Response percent	Response total
Strongly Agree		24.52%	38
Agree		56.77%	88
I don't know		10.32%	16
Disagree		7.74%	12
Strongly Disagree		0.65%	1

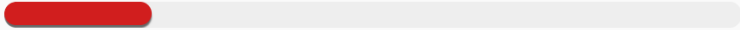

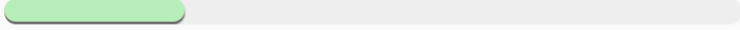
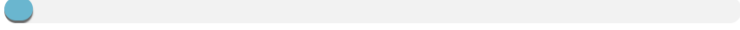
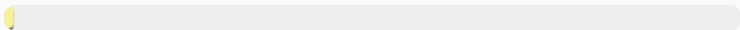
Q7: SPP effectively used a variety of communication methods (email, press releases, webinars, phone calls, website updates and social media) during the event. (155)

		Response percent	Response total
Strongly Agree		21.94%	34
Agree		54.84%	85
I don't know		17.42%	27
Disagree		5.16%	8
Strongly Disagree		0.65%	1

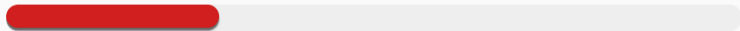

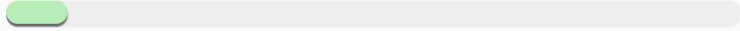
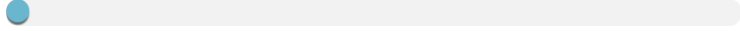
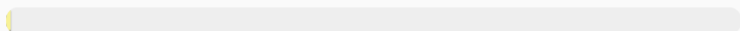
Q8: SPP's communications clearly explained the actions stakeholders should take during the winter storm event. (155)

		Response percent	Response total
Strongly Agree		18.07%	28
Agree		50.32%	78
I don't know		18.71%	29
Disagree		10.97%	17
Strongly Disagree		1.94%	3

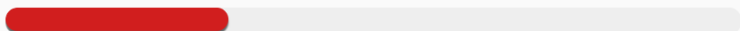
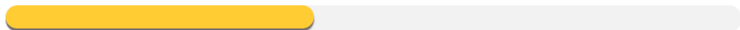
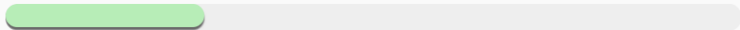

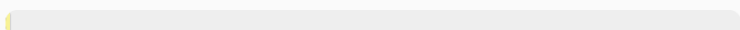
Q9: SPP communications during the event increased my trust in the credibility of SPP. (155)

		Response percent	Response total
Strongly Agree		20%	31
Agree		50.32%	78
I don't know		24.52%	38
Disagree		3.87%	6
Strongly Disagree		1.29%	2






Q10: SPP's leadership demonstrated necessary knowledge and expertise during the event, and were consistent in the delivery of their message. (155)

		Response percent	Response total
Strongly Agree		29.03%	45
Agree		58.71%	91
I don't know		8.39%	13
Disagree		3.23%	5
Strongly Disagree		0.65%	1





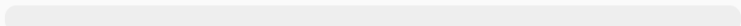
Q11: SPP staff were available and willing to answer my questions during the event. (155)

		Response percent	Response total
Strongly Agree		30.32%	47
Agree		41.94%	65
I don't know		27.1%	42
Disagree		0%	0
Strongly Disagree		0.65%	1





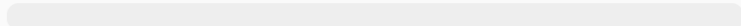
Q12: SPP's member organizations effectively communicated actions they were taking during the winter storm event. (155)

		Response percent	Response total
Strongly Agree		8.39%	13
Agree		46.45%	72
I don't know		32.9%	51
Disagree		10.97%	17
Strongly Disagree		1.29%	2

Q13: SPP and its member organizations effectively shared responsibility for communicating with regulators during the event. (22 Respondents – this question was only available to respondents who indicated they were government affairs or regulatory staff)

		Response percent	Response total
Strongly Agree		9.09%	2
Agree		45.46%	10
I don't know		31.82%	7
Disagree		13.64%	3
Strongly Disagree		0%	0

Q14: SPP and its member organizations effectively shared responsibility for communicating with other elected officials during the event. (22 Respondents – this question was only available to respondents who indicated they were government affairs or regulatory staff)

		Response percent	Response total
Strongly Agree		13.64%	3
Agree		31.82%	7
I don't know		27.27%	6
Disagree		27.27%	6
Strongly Disagree		0%	0

COMMENTS & OPEN-ENDED RESPONSES

The following are respondents' unedited comments in response to several open-ended questions included in the survey. Responses such as "N/A," "None," etc. have been excluded.

Q: Optional: Use this space to add comments or explanations for any of your multiple choice responses.

- I'm not sure what was done with elected officials and regulators during the event, but would be interested to know how SPP communicated with them and their responses.
- I already had a high level of trust in SPP. I'm not sure the event caused it to go up, but it definitely didn't cause it to go down. I answered "agree" in terms of trust increasing.
- collateral letters were very confusing and I had to contact my FERC attorney to understand,
- Prior to this storm I had never heard of an EEA through SPP and I've been at my organization for over 13 years. I think some education for communicators as well as government relations rep on EEA's and the federal requirements SPP is obligated to take would be a great educational opportunity. During the event a lot of us had to come up to speed very quickly on EEA's and how to explain them in layman's terms to end-use customers.
- SPP was providing information out but there was a break down on who was to be doing what between the TOP and GOP, and marketing.
- SPP's initial communications were lagging during the winter storm event. There was not enough pre-storm communication that this could result in an EEA beyond 1, particularly before a long weekend. Organizations not headquartered in the polar vortex territory were caught off guard by the EEAs since they were not experiencing the weather effects themselves. Once the communication began around Feb. 16, it was effective and frequent.
- Early in the event I didn't know what was being shared with our congressional delegation. Next time I will know that SPP will be communicating with our delegation. It would have been helpful to have that information up front to keep me from sharing information that they had already received from you.
- I think SPP did a good job during the event. I believe the communications problems were before the event where the likelihood of an EEA2 or 3 were not understood and what exactly was to be done during each alert were not understood.
- We received no pricing information
- SPP needs to develop a procedure for dispatching BTMG. MRES proactively reached out to SPP and requested feedback from SPP operations about whether or not to run this generation, which SPP operations supported and requested. However, it is my understanding there were numerous parties that did not operate their local BTMG. It doesn't appear the request to run this type of generation was relayed to those parties. Seems like there needs to be more linkage to the need to operate these distributed local generators during events like that and SPP. Perhaps SPP should have held an all hands on deck operations call with ensure this was clearly communicated. If entities are utilizing these as capacity resources, the local owner/operators need to receive more direct communications from SPP to operate these, especially during these prolonged high price periods. In MRES' situation, we receive the capacity credit and worked closely with our municipal operators / owners to ensure operation of the generation. While small in comparison to the overall market, these are valuable capacity resources, and should be relied up during situations like this. Is SPP evaluating performance of these unregistered units claimed as capacity resources? I don't believe the FERC / NERC investigations are looking into this issue, as we were not queried on performance, as they weren't bid into the market. What % of capacity do these non-registered

market units represent? Even a few % would have moved the needle. These resources BTMG will become more and more important as we rely on non-dispatchable generation on a more frequent basis for our energy needs.

- Communications came through multiple channels. It seemed that a specific channel could not be relied upon to get all the appropriate information through that specific channel. Example: System status warnings would come through one channel one time and another channel another time. But if you were not monitoring both, you would miss the at different times similar information.
- Very good, very timely information sharing from SPP.
- I was somewhat disappointed in the information that would have been coming to me as a member on the Members Committee. For the most part the communications to my transmission operating staff, kept me informed on what was happening. If not for that communications I'm not sure I would have been informed of most of the changes as a member on the Members Committee.
- Central Nebraska Public Power & Irrigation District gets most of its information through NPPD or Evergy.
- I generally ranked SPP's communication as positive in the multiple choice responses, however, with respect to the erroneous RT pricing of \$50,000/MWh, my organization didn't learn that the pricing was erroneous until well after the fact. Consequently, we made load bid and gen offer decisions based on that erroneous information for multiple days following that pricing error, which had significant adverse financial implications.
- Communication from SPP to e-mail lists provided good communication, but communication to the general public on the extent of the emergency and the possible consequences was lacking. In general the public had no idea what was going on. Our company was doing all the load control we could and were requesting end-use members to start their local generation and conserve where possible. However, we know of other utilities that were doing nothing to notify their customers or to control any load. I understand this was an unprecedented event that was very difficult to plan for. Hopefully we can use what we learn from this event to better prepare for communication for the next event.
- Expected changes in EEA levels was not clearly communicated. System went from EEA3 down to EEA1 and back up with little advance notification.
- As a board member, my perspectives are somewhat limited. I have no specific knowledge regarding the nature of the communications between SPP, its members, regulators and other stakeholders. However, the informal feedback I received suggested these communications were appropriate and of good quality.
- # 8 & 9 are due to frustration on our part. We were operating our load control during level 2. At level 3 we shed firm load while we heard other companies operated load control devices to meet their load shed directive.
- The communications were sporadic. Some people were getting the communications up to 40 minutes after other groups. Send blast emails out
- I don't think SPP's communications were as clear or as timely as they could be regarding the changes in EEA events and what each different level meant and the instructions for stakeholders. These changes were much more timely reflected on the SPP OASIS, but most people don't know to look there, certainly not non-operational staff.
- Seemed to be too many calls/webex meetings. One with Board/Members committee, another with GR staff, and others with various groups. May be a better approach to have one larger meeting so we don't have multiple reports coming from different areas that are slightly different

due to timing and people sending/receiving the message. I could see a separate meeting for Board/Members Committee.

- Real-time operations communications was adequate. Operations leadership communication was very good pre-event and evaporated to nothing during the event. This was frustrating as we did not have clear understanding of what issues SPP was seeing or what we could expect in the next few hours. I had little information/interaction with the senior leadership of SPP, but was aware they were making statements to press during the event that seemed appropriate.
- As I've mentioned to Barbara earlier, it would appear the two software processes that manage transmission line loading and load/generation balancing may need to be reviewed to ensure they don't request competing operations (e.g. dispatching generation down to relieve transmission loading at the same time load is being curtailed). Also, it would have been helpful to have more time to prepare and to inform our customers about the timing, magnitude, and duration (if possible) of the pending load curtailments.
- There were parts of the communication that were great.(The early notice of the event, phone call with Ops Management) The one main issue was the blast calls, they had some timing issues with the emails and RCOMM messages and they were very hard to understand.
- I have heard comments that better communications to state regulatory and could have been more frequent/proactive. Some actions related to demand response needs more detailed when calling on EEA2 or greater events.
- The option "I don't know" should be a more neutral statement like the word average.
- One problem with the multiple communications was the time between when they were issued. Some messages of the same subject took almost an hour between methods used. They did do good job of referencing the effective time though.
- As with any significant event there need to be improvement in the processes utilized and lessons learned put into practice.
- Member companies consumed more gas than they nominated then got their OFO penalties waved at FERC, thereby causing pressure issues downstream which didn't allow others to receive nominated gas.
- I agree that SPP had good communications but my e-mails and text message received from SPP were some times 20-40 minutes after a new level had been determined. Example: on 2/25 an EEA2 was declared at 7:22 a.m. but our e-mail notification came at 8:05 a.m. We are trying to pull together our text messages time table but Verizon has not been very helpful. We understand the need to move quickly but I think that the public felt they should have had some advance notice and that is where we were all beat up in the media.
- Communications during the winter event were one-way, SPP informing members; little opportunity for the reciprocal opportunity. SPP website was often down or lagging during the event. As a transmission owner/member in SPP, I was disappointed that I became aware of EEA status through social media and not via direct communication from SPP.
- I think the communications got better during the winter event but the first ones were not as clear as MISO was on the alerts. A comment was made that if you did not know the alerts - you should have known. That sounds like a communications problem.
- During the event the level of communication was appropriate. However, on the review call in early April, the tone from SPP seemed a little off from what utilities are communicating. The term "Ratepayer" was used instead of "customer". Additionally, the mention of the fact that customers don't appreciate us (SPP) all of the other times the power is on. This is the reality we as utilities have lived in for years and have asked SPP to recognize in areas of costs that are passed down. Please make sure your tone from the top is customer focused and no self-pity allowed to enter in to comments from SPP.

- Although I thought SPP did a great job communicating during the PV event, I do see room for improvement in several areas, including the better utilization of EEA communiques, blast calls, and increased use of R-COMM.
- Overall, I thought your team did a great job.
- My organization falls under the WAPA TOP and we are not a market participant (we are a member of Basin Electric) so I did not expect to get communications from SPP but rather WAPA.
- It is a hard ask to expect SPP to communicate that this is a 100 year event beforehand, as they didn't know. This event stressed everything, including areas outside of SPP control. This event will continue to happen until FERC gives the natural gas commodity guidance to raise the level of electrical resources that supply power to the gas pipelines the same level as "human needs" usage. Unless there is a change in the federal guidance, this will happen again.
- It would have been nice if SPP would have notified companies during the event or ahead of time on how DBDA commitments work and how Mitigation would work for offers over \$1k. Many MPs have never received those types of commitments and had to deal with submitting offers over \$1k.
- We were not initially on SPP alert lists so we were missing out on some of the early communications. Once we were on the right lists, information provided was timely and clear.
- Once our operations personnel receive notification from SPP to begin initiating controlled outages, they must start this process immediately in order to ensure grid integrity. This leaves no time for any type of preemptive messaging. In the case of both controlled outages, Corporate Communications learned of them by seeing the outages increase on our outage dashboard. Only after this did we receive communications from SPP stating load shedding had occurred. If this can be addressed – i.e., change the process to where the decision to shed load can be made earlier, so notifications can be made and communications sent, I believe a significant amount of customer/stakeholder issues would be averted.
- There were times we received communications that came much later than events actually happened. We received notifications of EEA declarations that were 15 minutes after the fact. That is too late.
- The SPP team is very knowledgeable and transparent. But because of how fast the decisions during the cold weather event had to be made, it provides a lot of challenges for all the communications teams involved. I felt that SPP communications were trying to keep us informed as timely as they could, and in turn we were updating the media as soon as we had new information.
- The topics and concerns discussed in the executive sessions verify some of my answers.
- Explanation: 9. Not knowing all the groups comprising "stakeholders" I did not have sufficient information to answer. Answer would likely vary depending on the stakeholder group. 10. SPP communications neither increased nor decreased my level of trust. Marked "I don't know," but meant "unchanged." 12. My only knowledge of member communications was within Nebraska. I have no basis for an opinion on communications of other members. 13/14, I answered "don't know" because I'm not aware of any protocol for sharing information with regulators and other elected officials under circumstances such as the February event. Overall, I believe SPP did a good job getting information out to these stakeholders, but it was ad hoc in the "fog of war." Clearly one of the purposes of this review is to determine if better protocols and coordination is appropriate and achievable under similar circumstances in the future or whether there should be other learnings regarding roles for and coordination of responsibilities among SPP and the members.
- As a transmission only Member (owner of transmission) we were not directly contacted by SPP during the event.

- Blast calls worked but Operators asked if the Satellite phone would have worked better.
- Communication was good including the load shed communication. There needs to be an overhaul of the manual load shed process and what entities are responsible.
- When load shed would begin after we moved to EAA4 was unclear before the Monday load shed event. I did not know if I should tell customers to prepare for load shed or to continue to conserve energy.
- Most communications and instructions were clear. A few were not such as during required interruptions what level (SPP, transmission, load serving, other) were those to be decided. But since had never been done before somewhat understandable, however for future greater clarity would be valuable.
- I work on the planning side, so I didn't have direct communications with SPP during the event and therefore don't have much insight.
- SPP's communication with the Governor of Nebraska was lacking.
- I was part of many of the updates that were provided generally to SPP stakeholders, committee members or to the public. Because it is not my role, I was not involved in the technical actions and communications from the SPP control room to our operators, but I understand that was occurring and believe it went well.
- Question #3 – Response is related to repricing notifications and decisions related to the Settlements waiver. Operational communications were sufficient. Question #4 – Communication of intent to reprice was not timely. Please see response to question #17 for further detail. Question #6 – Communication related to the second reprice of the DA on 2/13 and 2/14 was not clear. Many people within our company mis-read the communication to stakeholders as notice of re-clearing the DA market on 2/13 and 2/14 only. Also, more advance notification and timing of the second reprice would have mitigated the need for additional internal financial processing. Question #9 – The various software issues diminished our trust in SPP's systems and processes. Specifically, the erroneous \$50k RT LMP print and the timely processing of some generator offers. Question #10 – Communication of the intent to reprice was not timely enough nor was it communicated in a consistent manner. Details on the justification to reprice could have also been clearer.
- While SPP's overall communications were effective they got a slow start. Members were caught off guard with the electronic multiday commitment signals and as prices were escalating there was concern about whether extraordinary costs would be covered. Members needed early assurances that they would be reimbursed for securing resources. It came eventually to all but some folks clearly had a jump on it based on one-on-one discussions with various SPP staff which could have delayed others in the market from taking actions that would have benefited the region.
- I believe the SPP communicated very well in a situation where things can change dramatically in a very short period of time.
- SPP staff did an exceptional job during the winter event, however communication was the issue for our team. Not with direct staff but rather utilizing email to communicate transitions of EEA status. The email is an excellent method to provide the documentation and record of the notice but SPP has to move into the current decade with blast technology providing notice. I mean come on when restaurants text me notifying me that my table is ready and I can provide a immediate response confirm acceptance of the notice that tells me how simple it can be done. SPP should be sending out blast SMS communications with feedback requirement to confirm that the MPs receive whatever communication has been provided.
- There needs to be better communication provided prior to load reducing actions.

- Need to establish a risk scale (1-10) indicating the likelihood of reaching an EEA3 level - factor in weather, generating status, imports/exports, etc. Communication should be continually updated starting at a Resource Alert or Conservative Operations. Need frequent updates 6-8 hours, reaching out to the right parties.
- Issuing an email on Saturday (Feb 13; 512pm CST) late afternoon from Lanny Nickell with respect to potentially alleviating / removing the \$1K/MWh price cap on file with FERC, was too late. Parties had to make gas commitments the day before, as well as obtain credit, if possible, to allow for run away gas pricing. Furthermore, once SPP professionals tell a facility rep to place a unit "in outage", SPP should not be able to assess damages/charges for a unit being available.
- There was confusion in the timing of the messages sent through Rcomm and the blast calls.
- The first load shed request was confusing because the blast directive was delayed and in conflict with the verbal directive.

Q: How did SPP communicate effectively during the winter storm event?

- By starting early in the week that was helpful...and scheduling regular calls was very helpful to keep us up to date.
- SPP communicated with the President of SPS who in turn provided presentations to the NM Public Regulation Commission and a state legislative committee. Also, an SPS representative presented at the NMPRC open meeting regarding the winter storm event.
- SPP held several sessions with members to explain the situation and allowed for Q and A with members. I was able to speak to Pres/CEO the weekend before the load shedding events!
- Press conferences, phone calls from Barbara, emails, social media messages. These were all effective.
- They did great during the web meetings and in response to my email inquiries. Once I got on their email distribution list, that also proved helpful.
- Multiple press conference and communications.
- I felt like SPP communicated non-stop during the winter storm event. A lot of times I got multiple emails from multiple channels which made sure the communication was getting out amongst all necessary parties.
- As a GR professional I was grateful to be getting updates from the GR dept. so that we at least knew there was an issue and what was going on, it help us know that we needed to seek out answers for the regulators and elected officials that were looking for deeper answers.
- Once SPP assumed a leadership role in the winter storm response around midday Feb. 16, it was effective in communicating regularly with media and member organizations about actions and measures.
- The phone calls were very useful as well as the email communication.
- SPP Zoom events during the winter storm were very good and informative
- Yes. I think it will be helpful to have a plan for who communicates with which organization. For example, if SPP shares information with congressional offices, should the utility take responsibility to contact state & local legislators? Coordination and planning will fix this for next time.
- RComm, Blast Calls
- Notice was given at different levels of EEA events
- Email notifications of changes in alert status were timely and effective.
- They utilized multiple channels to reach a large cross section of groups and provided timely information in a timely manner.
- Notifications of the status of emergency conditions such as load shedding.
- RCOMM was very useful during this event, as were the Blast Calls.

- Great work assembling members prior to the event to discuss potential capacity concerns. Updates were clear and operational communication through voice, blast calls and R-COMM was great. Media / press releases were clear and helped folks not familiar with emergency operations understand steps to mitigate the capacity deficiency.
- Public announcements about planned actions, reasons for actions at or before the time they were taken, along with plenty of warning about what could happen in advance.
- Emails were good and the periodic briefings were helpful. I was not clear what you needed to do to be informed of the briefings. I found out about most of them through non-SPP sources.
- Did receive some timely emails.
- Availability / accessibility of SPP senior staff to respond directly to questions and go get answers when they didn't have them. The ability to reach out directly to Barbara, Lanny, Bruce, and other SPP team members is greatly appreciated.
- Delivered timely info explaining the actions and why they were necessary.
- The TP to TO communication was generally effective. Our ability to reach the MMU most evenings during the event for offer approvals also was appreciated.
- The e-mails from SPP were effective in communicating the status of the EEA with the members. However, at our company there were only two people that were receiving e-mails. The first couple of e-mails were not given a lot of attention mainly because we were not expecting the situation to get worse.
- Giving expectations for the next day so utility communications plans can be established. It is recognized the situation is fluid and can change.
- Appreciated the teleconferences. Should have had more regularly to explain the situation and emergency levels and foreseeable solutions or problems.
- From my perspective, SPP was very proactive in providing forward-looking communications regarding the challenges being faced and what steps might need to be taken.
- As a TOP our directives came directly to our control center. Only issue was RCOMM was down for a bit.
- The press releases, member calls and media calls were informative.
- SPP appeared to approach the winter storm event communications focused on a transparent and frequent communications approach across multiple mediums. As compared with ERCOT's reactive approach, SPP's approach was much more proactive.
- See above. I think SPP certainly tried to communicate effectively, but I don't always think the communication was timely enough or clear enough regarding the changes in EEA levels, what that meant for members, and what actions members were expected to take.
- set up and had calls/webex that provided timely and solid information on what was going on. The frequency was good.
- I believe the real-time communications were effective. SPP was very busy and as a result we did not attempt to bother them with unnecessary questions.
- The early emails and communications to our marketing and reliability staff regarding the severity of the cold temperatures several days prior to the curtailments was very helpful. We used this information to start making generation and fuel supply preparations.
- I found the email comms to be helpful and also the Zoom touch base calls with Comms and GA folks. Also, making sure information was available on your website.
- They were early to make contact with the TOP's and that communication was what enabled us to work with our customers to reduce load.
- Good communications with TO/Operations Lots of communication on advance notice of upcoming possibility of events
- Via Control Center

- I appreciated the emails and webinars, which helped our team stay on top of developments.
- It was good more things should have been sent with three part communications so SPP would have an acknowledgment.
- For the most part, clear communication of the event status, EEA levels, etc.
- Before the winter vortex arrived, SPP committed our peaking resources for 2 to 3 days in advance of the operating day. This allowed our plant staffs the time to take additional actions to prepare the units for the very cold weather. This helped us be successful in our plant operations.
- Over all, fairly well. Improvements are needed. As with any significant event there need to be improvement in the processes utilized and lessons learned put into practice.
- The communications were timely and useful during this unprecedented event.
- Clear, concise messaging via zoom type meetings throughout the event
- I think SPP communicated best they could and reached out to me personally
- I think so - including afterwards. There was no hesitation on SPP's part to respond to media inquiries. The releases and the press briefings helped. We mirrored SPP's briefings with our own using our CEO on a virtual press conference. I thought that the messaging was simple yet effective, but the timeliness was off. The SPP notifications we received were forwarded on directly from our office but I do not think that our local media is knowledgeable about SPP. We utilize a system called TERM that has been put into place primarily for summer conditions - Temporary Emergency Relief Measures, but the event was something new to SPP and for us the last time we used it was in 2012, although we do a practice run every spring and we utilize zones. What we pushed out from SPP did go state-wide.
- The color-coded EEA alert infographics were effective.
- WebEx meetings
- I am not in operations but here are a few ideas: Expand the list serves to others in the SPP footprints. No body knew how long this cold snap would last and I understand that was not easy. We had black outs that appear to not have been needed this far north.
- There were multiple emails detailing conditions and actions. These were sent on a frequent basis with each condition change. In addition, updates were provided during meetings held with the Board and other other constituents.
- Substance of communication and timeliness.
- Lots of e-mails, calls, etc. Overall, great job!
- Social media updates with details were helpful and quickly able to be shared in communities served by utilities.
- Use of R-COMM for load shedding was very effective.
- Issued alerts and warnings beforehand
- we knew the difficult situation that was predicted and communicated helping with understanding the situation once the event was communicated --making the communication much more effective than if this prior heads up did not occur.
- The emails, news releases, and conference call were very effective. The proactive communication was also helpful.
- Event was communicated effectively through frequent updates and conference calls.
- Having not been through this before I did not have an expectation but we were notified often and clearly. We have measures on our own end to clean up but that is not on SPP.
- I was glad to see Lanny on our local TV stations in Kansas City. The message was clear and understandable and the media got most of the facts right, at least enough correct so that the message was correct.
- Timely email notifications for Conservative Operations and EEA levels.

- The frequent virtual briefings, which included media, were helpful. Including media help us gauge what questions we might be receiving locally.
- Communications were generally complete and contained the right level of information. It would be helpful if they could be more timely (see#15 above).
- The daily meetings were helpful.
- Declarations of EEA alerts did actually come.
- The majority of our communications with SPP during the winter event were via email. This email communication was effective.
- Text alerts and Zoom meetings were timely and helpful.
- The preparatory warnings to communicators a bit ahead of the appeal for conservation were helpful. Also, sharing the definitions of the various emergency levels was helpful - these were not overly burdened with jargon and were well-understood by a wider audience.
- Through media communications and events that allowed questions from stakeholders and news outlets.
- By making personal contact with member companies and explaining implications
- The end of day press briefings were good to allow local media sources to become more educated on what was happening.
- SPP didn't hesitate to use all of its communications tools available to it.
- I could go to the SPP.org website and feel that I was getting up-to-date status. Not sure of the delay, but likely not much. It was than sent out from WFEA communications soon thereafter.
- Through a variety of platforms
- The filings at FERC were timely and effective. Willing to discuss operational concerns on a Sunday morning.
- Multiple e-mails with clear definitions of what was occurring, being fully accessible, phone/webinars with leadership to provide updates and answer questions.
- The use of multiple communication channels was mostly effective in ensuring that all stakeholders were getting the message/information. I would highly encourage you to continue to use all available communications channels during such an extraordinary event.
- The regular webinar updates and press breifings were very helpful, informative and provided a comfort level that we were all on the same page and had the latest information. If possible, hosting these types of webinars in the future during non-emergency times, could help us continue to grow our relationships between communicators within the region.
- Discussed in the executive sessions.
- Based on the dynamic, complex and interrelated conditions in SPP and adjacent RTOs/regions, I believe SPP did a good job providing timely information during this unprecedented event.
- Email, social media
- By SPP using all of the communication tools available.
- RCOMM, emails, press releases. The tools are there, the content on a few things need to be tweaked.
- Great! The Zoom calls were very helpful.
- Email notices and blasts
- Timely and clear messaging on the current status of the system impacts during the storm.
- e-mails explained the FERC order and procedures.
- I appreciated being part of the communicators group calls. It helped me frame the narrative for my agency from a regional perspective.
- Frequency was adequate.
- Zoom briefings by Lanny and team were informational.

- Overall well through the variety of mediums used. We are working through some issues regarding pseudo tied SPP BA load that was shed with the SPP Operational Director and establishing an emergency operating agreement for any future events.
- Press releases were timely. News conferences were well done. Lanny and Barbara in particular did an outstanding job of conveying empathy, knowledge and confidence.
- It definitely communicated that it was reviewing issues and considering things, but it was rather silent on specifics during the event. Some of this may relate to restrictions w/r to FERC interactions, but increased transparency would be nice. Operational communications were generally effective throughout the event.
- The early press release asking the public to conserve was very beneficial and prepared customers for the eventual notices that power would be interrupted in some areas.
- The daily calls with communicators for SPP members and cooperative statewide associations were very helpful. I recommend this in the future. Media and consumers often reach out to us first so a high level understanding of the situation is very helpful.
- The "doers" as I like to call them. The top 10% of SPP staff that was driving the efforts to keep the system operational would answer my personal phone calls during an emergency event. That's what SPP did effectively.
- SPP communicated effectively AFTER the event.
- SPP clearly explained the situation, resources available to us, and allowed time for questions during calls.
- For me, the constant emails updating everyone about the energy emergency conditions were critical to determine next steps. Obviously, SPP communicated well with local transmission operations personnel on load shedding conditions and OMPA worked well with the local TO operations personnel before, during and after actual load shed conditions. The winter storm was truly an event most SPP members had not experienced before, especially the abnormal low temperatures.
- As a small energy producer only, we had no interactions with demand reduction efforts and customer communications. The website/email/social media communications allowed us to stay informed and help inform others.
- R-comm worked well.
- multiple methods; emails, etc.
- I thought the Mike Ross & Lanny calls were very good.
- Load shed instructions thru Rcomm were clear.
- SPP communicated the EEA alerts effectively however could improve on the messaging of the operational constraints on the system. By definition EEA indicated that SPP was short of generation but the members were not aware of how much the system was dependant on imports through the event.
- Provided periodic updates as status changed

What could SPP do to improve communication during future emergency events?

- Maybe you had this and I missed it...but a repository on your website or a place where communicators could go to get the very latest update from SPP. Because we were all busy locally dealing with media requests and just general craziness of the whole event it would've been helpful to have a place to go to immediately get the very latest. I know you had press releases out and those could be accessed but some more real time info in one place that everyone knew where to go would've been helpful. Again, maybe you had that but I may have missed it.

- Think about role to communicate to governmental officials and support the members with the messaging.
- Talking points for utilities to help explain to their customers what is happening and why. It was not an issue for our utility, but it sounded like it was for smaller organizations. Across the board customers wanted to know before they had a controlled interruption. This is a challenge for the local utilities (not SPP) but sharing how others plan to communicate upcoming rolling outages might be beneficial (ex. best practices).
- The process of the EA alerts and subsequent curtailments could use greater expansion. In the beginning, it was a tad tricky to explain the EA3 and then the subsequent wait time of exactly the amount of load that was being requested to shed. There was a delay there. Overall, though, I thought they did great.
- Collateral letters were designed to meet legal needs but communicated the exact opposite of actions SPP was taking at FERC. They were extremely confusing,
- See comment above about understanding EEA's and SPP's obligations so communicators can better explain to end-use customers
- Educate on what the levels mean to each entity (TOP, GOP and Market member) and that the TOP and those on the TOP circuits know what/how could happen, we seemed to forget that in real application.
- SPP did a fantastic job with many unknowns in a rapidly changing situation. The one area that we felt we lacked information on was on receiving prior information before the Feb. 14 call for utilities to appeal to consumers for energy conservation. As a statewide electric cooperative association, we don't receive the member-utility notices since we don't generate or transmit power, but we play a crucial role in member education and engaging with several stakeholders: Office of Oklahoma Emergency Management, Corporation Commission and the Media. Our office only learned about the potential calls to action on Sunday, Feb. 14. It would have been nice to receive information prior to then.
- More heads up before operational emergencies. There is a balance between overselling the risk and leaving people at risk (much like tornado and thunderstorm warnings), but member organizations and end users need longer than minutes to prepare for an outage. Communications need to occur well before the lights go out, not after. There should be an established process for EEAs that include actions for member organizations. The chain of information needs to be shortened too.
- Our organization put together a graphic explaining the different energy emergency levels which got a lot of traction on social media. I think it helped relay to people what that information meant. I think SPP could improve on providing information that is easy for the average person to understand, not just those in the industry. I've talked to people who work in the industry who don't even understand how SPP works and why outages were utilized. Providing communication that is easy for anyone to understand would be helpful, instead of us translating the information.
- Has SPP provided follow-up, post mortem, information to its members?
- Better coordination and planning per #16. State utilities should have a plan to help you update contact lists.
- I think from this point on members will be much more aware and proactive to any EEA's.
- it would be helpful knowing in advance a level 3 alert was forthcoming
- The Blast Calls tho useful, were at the same time distracting to the System Operator. The reason is the background noise that comes with them. We put them on speaker because so many other things were going on at the same time. This created an excessive amount of useless noise until the official announcement was made by SPP staff.
- more time

- For my needs the communication was adequate. No changes needed.
- As appropriate, more consistent messaging across the different communication channels.
- Get the message out before the crisis if possible, and across the entire member region.
- Perhaps convey to media not only what the public should do, but also why. For example, rather than saying, "Try to use less energy", something people do every day to reduce power bills, say, "There is a shortage of power generation right now. So try to use less energy so that we won't have to turn off your power or someone else's power." If the media conveyed something like that to the public, the conservation response might be more helpful than more routine statements like, "Try to use less energy",
- Separate two load shed Operating Instructions into unique (not the same amount of load shed each time) amounts for Operating Instructions issued closely together.
- If possible, increase timeframe to notify members of load shed instruction would be great and/or more data available to members indicating when a potential load shed instruction may be forthcoming. This allows the members more time to communicate with customers.
- I think the event exposed opportunities for better pre-planning and coordination, better coordination during an event, and need for regular "exercises" across the entirety of SPP and its membership.
- Work to simplify the language for end-use customers to understand.
- As noted in question 15, once a pricing error is discovered, it should be revealed to Market Participants asap.
- It may not be SPP's responsibility, but getting timely information to the public is crucial. It seems everyone gets their news from social media, so radio and TV don't get the message out. Next day newspaper articles on the need to conserve are too late. In the future, if SPP expects emergency events, advance notice (e-mails work) would be helpful. We were not aware SPP had predicted the possibility of an emergency event and were scrambling to notify our members when the situation deteriorated.
- Training and policy updates on EEA process. What is the amount of generation available vs load. What generation is not working and risk of loss of more during emergency events.
- I don't know. My hopes are that the assessment process will help establish a better coordinated and integrated set of communications protocols that formally involve SPP, its members and other relevant stakeholders and help achieve improved effectiveness and better tailored capabilities to the expressed needs of our stakeholders.
- It need to be made clear when load control devices are used consistently by all membership.
- Blast emails instead of separate groups
- The press releases as EEA event levels fluctuated were not timely. As a member TU this and the websites was the only source of information on the event levels. I feel another way to contact TU on the system is needed so we can operate our system accordingly. Only the TOP were directly notified is my understanding.
- If you can update the OASIS timely, you can send out notices of status changes that frequently. I had to constantly refresh my connection to the OASIS site to see the operational status changes, and email, etc. communication was much slower. While I'm sure the communication was fast among operational folks, for non-operational folks, it wasn't as timely. I need information timely to be able to ensure all my entity's members know the status changes quickly.
- Have one daily briefing for members and one for external. Seemed like I would give an update and another person just got off a call with a different group with a slightly different understanding of what was happening.
- Provide periodic updates to operating personnel at member companies on a routine basis. Webex/conference calls would be an opportunity to get the big picture information out to

operations personnel at entities at the same time and allow some questions to clarify and ensure understanding.

- As noted above, the timeliness of the communications prior to the curtailment events is critical. We recognize SPP was performing a difficult set of responsibilities and managing a "once in 80 years" event, but if we had more time to inform our customers for the timing, magnitude, and duration of the curtailments, it would have been beneficial.
- Is it possible to describe in more detail or more clarity why it is not possible to notify consumers in advance? I mean, I get it, when we're being asked to shed load and these are split-second decisions being made, but the avg consumer remains skeptical that in this day and age of technology, and our ability already to text people about power outages, that there is not SOME way to notify folks about where the outages may occur when temporary power reductions are called for. Or maybe more advance warning about what people can do and how they can prepare for such situations.
- Get a different voice on the blast calls that is understandable and clear. Make sure the timing of the emails, RCOMM, and blast calls lines up.
- Communicate more frequently with RSC.
- Email blast
- It would be nice to have a follow-up email report of webinar discussions or key information, in the event our communications team is unable to attend the event during such a busy scenario for media communications.
- There should be communication groups established that contain companies ie: TO/TOP or: TO/TOP and GO/GOP or: TO/TOP, GO/GOP and DP but not limited to these groups. Thinking of all MP's as the same type entity is bad AO's are not defined well in attachment AH. Attachment AH if redefined could be the source of this list.
- Consider scheduled periodic updates, release info at the same time.
- Add tools that reach more levels of support. GOP and TOP need to be coordinated to understand and evaluate mitigation
- Schedule as much as possible
- There was some ambiguity early on wrt offers and gas daily issues but SPP again worked through this and did best they could
- I wonder if we could have a joint media guide/fact sheet that highlights who SPP is and what they do with the member utility in each state. Emphasize that SPP wants to keep the lights on as does the utility member. I think the big thing for us is communicating to customers (public power districts and co-ops) that will sell power to wholesale. Communicating with a customer of the customer.
- Midwest Energy's load needs to be broken out from Evergy Kansas Central's so we don't have to calculate how much load they should shed when issued instructions from SPP.
- As soon as SPP forecasts/predicts the potential for an emergency event, let us know. We at NIPCO were made aware of this issue through WAPA and Basin Electric Power. As a member of SPP, we should be privy to this type of information so that we can be proactive rather than reactive. Our member-owners don't care about EEA notifications from SPP, they care about their power staying on. Going forward, please provide details of why the emergency event is occurring and what they can do to help during the emergency event.
- Maybe a little earlier WebEx Info meetings
- You mentioned that you ran every power MW that was available and I don't understand why some plants were not requested to run or backed down. Did you ask about BTMG? Did you ask if any unregistered units could run?

- In addition to the communications provided, there may be a way to have short but more real time updates issued.
- Nothing to add.
- This was unprecedented, so we were all really building a ship at sea. Sometimes it felt like our electric supply folks got such short notice to start shedding load.
- We could use better day ahead predictions of estimated load cuts. If we could get a range of curtailment potential it would be helpful.
- TOP/RC/BA webex calls would have been useful to provide updates. Blast call process needs improvement, EEA notification (move away from e-mails, increased use of R-COMM).
- We are in both SPP & MISO; please consider adopting some of what MISO did; meetings were held every afternoon from February 13 through February 18 with regional executive director and key staff to give an overview of conditions and expectations; MISO provided a liaison that was used multiple times with texts and e-mails
- shore up the feedback loop between members and SPP so that both have a clear understanding of who did what and where.
- 1. Provide talking points regarding the situation, if possible. 2. Provide public appeal graphics for social media in advance, if possible. 3. Provide a link to a video of your CEO explaining the situation. 3. Provide training during the SPP Communicators' Conference that specifically focuses on an EEA event.
- It would be very convenient to be able to opt in for a text option for EEA notifications.
- Create an exploder list to communicate information and status with organizations such as mine that are not a TOP or dispatching organization.
- same answer as question 16
- More frequent Real-Time Communication to Operating Groups and Market Participants. Open line calls, blast calls, Rcomm for Generator Operators and/or Market Participants.
- Some of the load shedding/restoration instructions could have been clearer
- Micro site for the specific event. One-stop shop for the event.
- Communication needs to be faster and clearer and consistently communicated.
- As media and others were also getting alerts, their level of understanding was varied. Where there are clear lines between alert levels sometimes context of overall changing system conditions weren't coming through.
- The hopping back between EEA 2-3 on Feb. 15 every few hours were problematic; from when we got word of the change, we were often still smoothing releases and notifications when it would change again. The result was chaos, and HUGE delays in information. This is something SPP should revisit - once an EEA3 is declared, consider leaving in place for at least 6 hours. Hopping in and out of EEA3 undermines our credibility. Many of us have small staffs, and struggle to keep up with the internal and external notification processes in such a rapidly-changing environment. For us, operationally determining what load to shed, writing that communication, internal chop and dissemination took at least an hour, sometimes longer.
- More communication leading up to an event would be beneficial. Although, there is a balance in scaring customers vs keeping them informed of the possibilities.
- Perform a communications and sentiment analysis from Winter Storm Ur. How did SPP website traffic do? How did digital (social media) tools do? SPP's website helps its members, but, not the general public, and so it could be dramatically improved to help the general public better understand what it is and what its job is during the event. Consider Vox explainer videos, or digital story telling concepts.

- Email participants directly and across multiple email distribution lists in times of an emergency. The event resulted in my signing up for more email lists but would have appreciated seeing some of the material sooner.
- Better clarity around the directive to purchase gas and what market participants requirements were. Additional communication regarding make whole payment certainty.
- Assure that distribution lists are complete; we received most communications but not all. Set expectations for members (TOs) on how to best communicate with their impacted stakeholders. Include ALL members in notifications associated with load shedding events, even if at a high, non-specific level.
- All load serving stakeholders should be informed of plans/directives to implement manual load shedding at the same time it is communicated to Transmission Operating entities.
- Regular updates over video chat are a great value. I am on the SPP Communicator's email list, but are there any other email lists that would come from SPP that would be of value for me to be on as a member communicator?
- Discussed in the executive sessions.
- Developing a better understanding of roles and responsibilities of SPP and its members for communicating with various stakeholders is an opportunity in this review process which is clearly on the table. Additional discussion is appropriate as there may be differences of opinion between SPP and its members, among members and among external stakeholders as to whether SPP, members, or both should be the source of communications. Again, I believe this is one of the primary learning opportunities from this review.
- I thought the zoom calls were great. Maybe a daily call, if feasible, during future events.
- On the 2nd event the Blast Call should state that this is the 2nd instruction to shed additional load on that Tuesday. Communication through the Blast Calls and R-Comm leaves some room for improvement to help remove some potential for misinterpretation.
- A one-pager explaining what happens in each EAA designation would be helpful. Be clear about expectations for each member company as far as communicating with customers and what we should expect from SPP.
- Perhaps a warning drill reminding customers of the rules "in case of an event" each season would be helpful.
- Ensure to communicate better with elected officials in a timely manner. Ask member utilities in SPP states which elected officials they need to contact and how often.
- Overall communication was well done. I would recommend a training session be developed in order to mimic what happened in February so operational staff that were not on duty during that time period can become educated in the procedures in preparation for any future events.
- Consistency in distribution of communications. We found that sometimes the same type/update communication was not distributed to the same group of email addresses.
- Notice that a multi-day RUC was forthcoming would have been helpful. Many market participants were caught off guard. Also, we had an incorrect clearing of an outage unit. We also had trouble with a unit that was not committed though it is cheaper than another that was committed. This led to a great deal of frustration and uncertainty in purchasing gas.
- More timely notice of repricing information as Market Participants were faced with critical real time business decisions during the event. Price revisions undermine market integrity and hamper liquidity, forward price formation, and the ability of generators and load to mitigate financial risk. SPP should not rely on email distribution lists to communicate critical system information to stakeholders. During emergency events, critical employees often are not able to continuously monitor email while maintaining system reliability. SPP should adopt a more efficient communication system like other ISOs/RTOs. More transparency on status of things and basic

thinking on part of SPP w/r to how it would propose addressing things. The FERC Waiver request was a good idea but details and thinking were 'secretive' until it was issued.

- It would be helpful to differentiate between SPP's typically frequent "conservative operations" declarations and extreme weather events of long duration. More proactive communications on what SPP was anticipating would have been helpful early in the process. It would also have been helpful to get the Order 831 guidance out to all customers simultaneously with issuing the multi-day commitment directives.
- Use a SMS communication and feedback system. Even if its a notice such as "[SPP has issued an Emergency Event Notice please refer to email notification for details] Confirm receipt of this notification by replying YES" Additionally, SPP should establish an SMS info system. It would allow MPs to send specific text commands to the system that will respond with real-time RTO information. Example: Text: Gen2Load Response: @ 04/30/21 07:35 RTO total generation available: 39,150 MW total load demand: 25,659MW or Text: Wind Response: @ 04/30/201 07:39 Actual Wind: 5316.4MW Short Term Forecast: 5660.0MW
- Provide more timely information as to the projected need for reducing load.
- I think the Sunday call prior to the event was very helpful. Getting ahead of the situation allows us to prepare our messages.
- Work with member utilities to set up more/better communications channels with local/regional TV and radio stations to communicate conditions. This would involve up front training with the regional and local companies to train them on electric system issues and what to expect from SPP and local utilities in emergency system events.
- As a small energy producer only, we took internal actions based on the SPP website information to increase generation when we thought it was beneficial. We were probably not impactful enough to merit attention directly from SPP, but if there were a way to communicate the needs in an event like this easily, we could have done a better job being as useful as possible.
- Email alerts were good, but need to be better organized (3 different emails going out with similar messages). Blast calls with status/risk updates need to be more frequent. Need better conceptual information targeting the general public's understanding of who the SPP is and what they do in general as well as in a Load Shed Event. Also why is the load shed event occurring.
- SPP needs an earlier policy on price caps, gas restrictions, unit outages, etc.
- Make sure communication staff of member regulated utilities are aware when SPP receives questions from and meets with their regulators; Attorney Generals & Governor's offices. We need to understand how SPP is explaining the situation so that we can reconcile any conflicts or perceived conflicts in messaging.
- Use Rcomm exclusively and follow up with calls to the control rooms of the member TOP's.
- Commissioners from our states gave me feedback that the utilities kept them informed but they did not hear from SPP throughout the event.

APPENDIX E: SPP LEADERSHIP SURVEY

OVERVIEW

The Communications Comprehensive Review (CCR) team issued a survey to all Southwest Power Pool (SPP) officers and directors beginning May 24, 2021 and closing June 7. The purpose of the survey was to assess how officers and directors communicated with individual stakeholders during the Feb. 2021 winter storm event, what worked well and opportunities to improve in the future. Even if officers and directors did not communicate directly with stakeholders during the event, the CCR team wanted to include that data as part of its final assessment.

A total of 24 responses were received of the 31 total officers and directors invited to take the survey (77.4% response rate). One current officer, Kelly Carney, was excluded as she was not yet onboard with SPP at the time of the winter storm event.

KEY FINDINGS

All officers spent some time – though that time varied widely – speaking with individual stakeholders. Only a portion of directors spent time speaking with individual stakeholders. On average, officers spent twice as much time speaking with stakeholders as directors, with Mike Ross, Lanny Nickell and Barbara Sugg all reporting 4-6 hours a day spent communicating with stakeholders.

	Communicated w/Stakeholders	Avg. Min/Day (excludes 0's)	Avg. # People (excludes 0's)	Proactive/ Reactive
Officers (7)	7/7 (100%)	162	5.7	40% / 60%
Directors (17)	10/17 (59%)	85	5.6	50% / 50%

Several directors spent time fielding specific requests for data in the midst of the event, as well as answering questions about policies and procedures. Officers faced questions about what to expect and how the storm would impact stakeholders.

Both groups identified preparedness (including data and communications materials), candor and regular group calls with stakeholders as “what worked well.” Group calls seemed to help with the volume of stakeholders who desired contact, though many still wanted individual outreach.

Directors generally felt that not much more could have been done, except improving communication from operations to the rest of SPP, and having better lines of communication with TOP managers.

Officers who had little stakeholder contact had few suggestions for future improvement. Officers who were in frequent contact felt there was a need for an organized response by a larger group of officers and other staff to meet individual needs, and to use regular, more frequent group calls / meetings to meet the broad needs of stakeholders during the event.

SURVEY RESULTS BY QUESTION

Q1. On average, about how much time did you spend each day communicating with individual stakeholders during the winter storm event (Feb. 14-20). This could have been writing or responding to emails or on the phone, for example.

Q2. On average, about how many individual stakeholders did you communicate with by phone, video or email each day during the winter storm event?

Q3. On average, what percent of your daily communication with stakeholders during the event was proactive (initiated by you) and what percent was reactive (responding to inquiries and outreach). Total should equal 100%.

Table A – Directors with no communication with members/stakeholders

#	Q1. Mins/Day	Q2. Individuals	Q3. Pro/Re	
1	0	0	0%	0%
2	0	0	0%	0%
3	0	0	0%	0%
4	0 hours per day	0 people per day	0%	0%
5	I don't recall communicating with stakeholders regarding the winter weather event when it was taking place.	none	0%	100%
6	Minimal...perhaps 15-30 minutes a day more in casual conversations with vendors, but not with official SPP members or stakeholders	None	0%	100%
7	No external communication, only internal	No	0%	100%
DIR. AVG.				

Table B – Directors with communication with members/stakeholders

#	Q1. Mins/Day	Q2. Individuals	Q3. Pro/Re	
1	30 minutes	8	65%	35%
2	Very little to none. FERC staff - maybe 30 mins	Very little to none. FERC staff - maybe 5	100%	0%
3	from 15-20 minutes to as much as an hour	1-4	15%	85%
4	1 hour	3	50%	50%
5	About an hour	3	0%	100%
6	hour per day	3	75%	25%
7	1 & 1/2 hours	7 - 10	25%	75%
8	2 hours	5	75%	25%
9	2 HOURS/DAY. 3 HOURS/DAY IF INCLUDING RMS CORRESPONDENCE	10	40%	60%
10	4 hours	8	50%	50%
DIR. AVG.	~ 85 mins per day	~ 5.6 people per day	50%	50%

Table C – Officers communication with members/stakeholders

#	Q1. Mins/Day	Q2. Individuals	Q3. Pro/Re	
1	less than 10 minutes	1	0%	100%
2	0-5 hours	0-1	0%	100%
3	less than 30 minutes	less than 1	0%	100%
4	3 hours	10	40%	60%
5	4 hours	ranged from 325 to 600	90%	10%
6	4-6 hours	12-13, excluding mass communications to MOPC, MC, Board, and press conferences.	30%	70%
7	6 hours	10	80%	20%
OFF. AVG.	~ 162 mins per day	~ 5.7 people per day	40%	60%

Q4. What individual stakeholder issues or questions required a disproportionate amount of communication?

Director Responses (excludes N/A or "none")

- "Mainly general interest/education questions about how we (SPP) operate and any affect on local resident's power"
- "External website bandwidth issues"
- "FERC Waivers related to the settlement statement timelines & SPP credit policy waiver"
- "Curtailed of load concerns"
- "Specific data requests during and shortly after the event."
- "Basin FSE Dispute required majority of my time"
- "Calls which came into the OPS center from our members' customers. The SPP Operations number was given out by 3 or 4 of our Members to their external customers. Don Martin specifically spoke with these individuals to listen to them vent and to provide them information regarding the process for service interruptions. He went above and beyond in this regard."
- "There was some redundancy in desire to communicate all hands on deck to keep IT systems up and functioning, but nothing that was counter-productive."
- "Credit issues and questions"
- "At times during the event the regulatory leaders wanted real time information and it took a lot of staff time to support the data request. Senior management did a terrific job of filtering but even the requests we had to respond to took quite a bit of time."

Officer Responses (excludes N/A or "none")

- "Financial security requirements"
- "Transmission constraints"
- "Elected officials, press, member company government affairs and corp comm reps trying to better understand our processes that lead to controlled outages."
- "What to expect for the next hour, next day, etc. & why? How to assure cost recovery?"
- "Concerns about gas availability, being assured of make whole payments, and of course the high prices."

Q4. What worked well when communicating with stakeholders one-on-one during the winter storm event?

Director Responses (excludes N/A or "none")

- "Emails twice daily unless breaking news. Face to Face Q&A twice weekly"
- "Preparation. Thorough research and clear statements."
- "Being up front."
- "Knowing what was happening at SPP"
- "SPP members are generally appreciative of one-on-one responsive communication which was maintained during the event."
- "Providing direct response to questions, even if the answer was "I Do Not Know"
- "Providing a lot of sympathetic listening, and only educating on points where they had incorrect information if it was actionable from their perspective."
- "Jabber is always great amongst my team and others in IT for messaging and video calls. Outside of IT it depends on the individual if they use Jabber or not. Mobile phone is the most reliable in reaching someone immediately."
- "Most stakeholders were familiar with the credit policy and/or settlement processes. This allowed for a reasonable understanding of payment liabilities and collateral calculations which were the topics in question."
- "Larger working group calls worked well."

Officer Responses

- "Candor"
- "I was able to speak from talking points or slides prepared by SPP communications. This kept my conversations consistent with corporate messaging."
- "Being able to reference specific sections of the tariff that governed SPP's actions."
- "Phone calls worked well because of the complex nature of the event and the ability to have direct conversations."
- "WebEx and email allowed me to reach large numbers in a timely manner."
- "Stakeholders seemed to really appreciate whatever insight I could share with them that helped them understand the bigger picture."
- "The individual discussions were very much appreciated by the stakeholders."

Q4. What would you do differently in the future when communicating with individual stakeholders during an emergency event?

Director Responses (excludes N/A or "none")

- "Not much. My area was only peripherally involved."
- "Probably engage in more proactive communication"
- "Improve internal communication from Operations to all management"
- "No suggestions. I am no longer responsible for Operations/Markets directly, however have a good relationship with members. They sometimes reach out to me first, then I link them with the right SPP staff as quickly as I can."
- "I really didn't have any lessons learn, what has always worked with the stakeholders I visit with worked well during this event."

- "I think we generally did a good job of this. I would just emphasize communicating as much as we can as early as we can. But again, I feel like SPP did this. "
- "I thought communication was pretty good for the most part. Perhaps more top down communication from Operations regarding the current situation would have been helpful. However that may not have been reasonable to ask given the situation (i.e. who had time to give the latest status while constantly trying to manage the the issues at hand)."
- "Would have been nice to have them all documented in RMS but the individual/group phone calls allowed for better understanding by the credit customers. It would have been difficult to have the treasurer, credit/settlement analyst and accounting people correspond with SPP staff in writing and achieve the same success of verbal communications."
- "Overall I think SPP did an outstanding job of communicating prior to the event. We need to figure out how to keep our stakeholders better informed of the operations conditions during the event. Specifically our TOP front line management staff."

Officer Responses

- "Nothing"
- "Not much. I had little stakeholder exposure during the event."
- "Not much"
- "I don't think I would change anything. Stakeholders were very understanding if I did not have time to immediately talk to them."
- "More frequent and scheduled times for WebEx. More update to date and appropriate contact list for email and phone numbers to call after hours."
- "In the future, it would be more effective to develop common messaging that can be shared proactively to more individual stakeholders and to incorporate more customer care into the process. For example, more of the officer team could work together to ensure key stakeholders are being communicated with."
- "I suggest we have a crisis communication team that works together to provide more frequent outreach to ALL of our members. Those that we spoke to were appreciative, others felt completely out of the loop."