SOUTHWEST POWER POOL

2014 STRATEGIC PLAN

SPP Southwest Power Pool

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2014 SPP Strategic Plan

Developed by the

Southwest Power Pool, Inc.

Strategic Planning Committee

July 2014

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Purpose

The 2014 Strategic Plan establishes a strategic direction for SPP, positioning SPP to fulfill its Mission Statement over the next decade and beyond. The Plan recognizes that the future is uncertain and that depending upon circumstances, responses must be conditioned upon cooperation, industry knowledge, technology, and the interdependence of neighboring regions as well as other fuel resources for generation. This plan introduces a fourth foundational strategy, Reliability Assurance, as its bedrock. With Reliability Assurance as its basis, the plan revises the 2010's three foundational strategies which are anchored in the Mission Statement and the five components of SPP's Value Proposition to its members. The strategic initiatives related to each of the four interdependent Foundational strategies will position SPP for the future while balancing operational priorities and financial considerations.

Strategic Planning Process

With input from the members, the Market and Operations Policy Committee and its Working Groups, the Regional State Committee and Board members, the 2014 Strategic Plan was developed by first establishing a baseline for where SPP is today.

The Strategic Planning Committee then reviewed alternative visions of how the industry may change over the next decade. SPP has revised its strategic planning process to also include active engagement of the Board of Directors as a group. This enhanced approach recognizes that SPP and the strategy set by the Board covers not just the goals and activities of Staff, but also the activities of the stakeholders that are integral to the Plan's success and effectiveness.

In the course of this process, some themes emerged that guided the development of this next strategic plan. The themes led to the development of four foundational strategies. The themes can be summarized as follows: Plans, Seams, Fuels, and Costs. Additional one-word themes embodied within the four noted in the previous sentence include: affordability, risk, security, exports, and funding.

The major focus is that SPP has and must remain focused on its core mission of reliable planning and operation of the grid. Ensuring that SPP's capacity margins are adequate and that the grid is resilient is key. Keeping the lights on, today and in the future, also involves the continued reliable operation of our electricity marketplace and open access.

The next theme to emerge is that the Integrated Transmission planning process envisioned five years ago has delivered tangible results and should be re-evaluated and adjusted to accommodate the introduction of day-ahead and real-time markets, as well as other substantive events and changes. Another theme to emerge is that of optimization (both natural gas and transmission).

The portfolio of generating capacity in the region is undergoing a shift with the introduction of EPA Rules limiting coal production as well as the introduction of renewable energy resources (wind and solar) into the fleet. Accordingly, natural gas is becoming increasingly important as a fuel source, dictating an ever increasing need for reliability situational awareness of this emerging fuel source. Enhancing the transmission on the borders of SPP's region is an increasingly important interdependency that is ripe for improvement.

Lastly, all of these fundamentals elements of our mission have economic implications for consumers and end-use customers. SPP must be mindful of a continued focus on affordability and communicating the value that the Organization provides. The four SPP foundational strategies and the Strategic Initiatives were developed to leverage SPP's capabilities and operational processes to enhance member value; maintain an economical optimized transmission system; and to optimize interdependent systems, all while maintaining reliability assurance.

Strategic Planning Committee members:

Ricky Bittle, Committee Chair, VP, Arkansas Electric Cooperative Corporation

Jim Eckelberger, Chairman, SPP Board of Directors

Harry Skilton, Vice Chair, SPP Board of Directors

Phyllis Bernard, SPP Board of Directors

Les Evans, Sr. VP & COO, Kansas Electric Power Cooperatives, Inc.

Robert Janssen, President, Dogwood Energy

Venita McCellon-Allen, President and COO, AEP, Southwestern Electric Power Company

Jake Langthorn, Director, Transmission Policy, Oklahoma Gas and Electric Company

Jon Hansen, VP, Omaha Public Power District

Michael Wise, VP, Transmission & Operations, Golden Spread Electric Cooperative

William Grant, Manager, Transmission Control, Xcel Energy

Michael Desselle, Staff Secretary, VP, Process Integrity, SPP

Our Mission

Helping our members work together to keep the lights on … today and in the future.

Value Proposition

SPP's five Value Propositions are the principles that have driven its history and frame its future. These principles are very familiar to SPP members, and they distinguish this organization from other regional organizations.

Relationship-Based

SPP dates to 1941 when 11 utilities across seven states pooled their generation resources to serve a critical defense plant in central Arkansas. After the war, the organization continued to exist. It grew to a peak membership of 78 entities without any legal recognition, until it incorporated in December of 1993. Until 1998, the membership agreement consisted of a single paragraph obligating members to abide by the organization's bylaws. As in the past, relationships, rather than contracts, continue to keep this diverse organization together.

Member-Driven

SPP's organizational structure of broad-based committees, working groups, and ad hoc task forces is the true source of SPP's success. More than 360 people are involved in efforts driven by these groups. These groups' rosters match the organization's diverse membership, requiring participants from across the footprint and recognizing the various member types and sizes. These principles promote member ownership in the organization's products, reduce interventions in regulatory proceedings, and continue to keep SPP's staff size the smallest in the industry.

Independence through Diversity

Since its inception, SPP's membership has been one of the most diverse of any regional organization in the industry. With membership comprised of investor-owned utilities, independent power producers and independent transmission companies, municipal systems, generation and transmission cooperatives, state authorities, wholesale generators, and power marketers, any and all opinions are heard loudly and clearly in organizational group meetings.

As a member-driven organization, meaningful stakeholder involvement drives SPP's efforts and effectively balances diverse opinions. Since 2004, this independence has been further enhanced with governance residing in an independent Board of Directors. When SPP was recognized as a Regional Transmission Organization, the SPP Regional State Committee was formed giving not only customers, but state regulators a formal voice in SPP's decisions as well.

Reliability & Economic/Equity Issues Inseparable

In 1968, SPP took on the responsibility of serving as a regional reliability council under what became the North American Electric Reliability Corporation. The Federal Energy Regulatory Commission approved SPP as a Regional Transmission Organization in 2004 and a Regional Entity in 2007. As a Regional Transmission Organization, SPP provides transmission planning, tariff administration, reliability coordination, and wholesale market services to our members in an efficient and cost-effective manner. As a Regional Entity, SPP enforces reliability standards for our members and other users, owners, and operators of the bulk electric system in the SPP region. SPP members have long maintained that electric reliability issues cannot be debated in the absence of economic/equity issues.

History has shown that attempts to separate reliability and economic/equity issues result in the same people meeting in different venues with confusion over which organization should attempt to resolve problems. A single organization providing both Regional Transmission Organization and Regional Entity services results in greater cost-effectiveness and organizational efficiency for SPP's members.

Evolution, Not Revolution

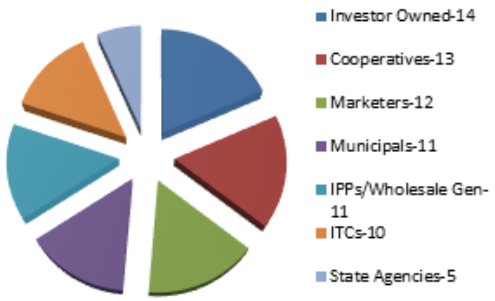
SPP's original purpose was to pool power to support the war effort. In the decades since then, SPP's mission and our members' needs have changed. Reliability remains SPP's preeminent focus; however, a deliberate evolutionary process has guided the growth in services delivered by the organization, resulting in a carefully staged continuous improvement.

Southwest Power Pool — June 2014

SPP administers reliability coordination, wholesale markets and transmission services for the benefit of all electric utility operations in the region SPP serves, using members' transmission systems. As a Regional Transmission Organization, SPP is mandated by the Federal Energy Regulatory Commission to ensure reliable supplies of power, adequate transmission infrastructure, and a competitive wholesale electricity marketplace. Regional Transmission Organizations are like "air-traffic controllers" of the electric power grid. They do not own the power grid, but independently operate the grid minute-by-minute to ensure reliable delivery of power to end users. SPP also serves as a Regional Entity of the North American Electric Reliability Corporation.

Membership

SPP's 76 diverse members serve over 15 million customers across nine states.

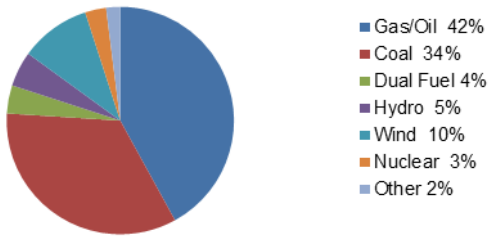


Geographic and Operational Footprint

370,000 square miles
48,930 miles of transmission lines
4,103 substations
627 generating plants
2013 Peak Load: 46,362
Generating Capacity: 77,366 megawatts

Generating Capacity by Fuel Mix

Current SPP Generating Capacity by Fuel Mix



Primary Services Provided to Members and Customers

Reliability Coordination: SPP monitors power flow throughout our footprint, takes action to manage congestion, and in emergency situations coordinates regional response.

Tariff Administration: SPP provides "one-stop shopping" for use of the region's transmission lines and independently administers an Open Access Transmission Tariff with consistent rates and terms. SPP processes more than 10,422 transmission service requests per month; 2013 transmission service transactions totaled $1.29 billion.

Compliance: SPP has functionally separated its compliance model in order to continue to provide value to its members in an efficient and cost effective manner. The SPP Regional Entity as a delegated representative of the North American Electric Reliability Corporation enforces compliance with federal and regional reliability standards for users, owners, and operators of the region's bulk power grid. Separately, the SPP Regional Transmission Organization has undertaken measures to promote reliability excellence to the entire SPP footprint through reliability forums, advice, and other guidance to SPP members and Registered Entities. The Organization also supports an internal culture of compliance through ethics and compliance awareness training.

Transmission Expansion: SPP's planning processes seek to identify system limitations, develop transmission upgrade plans, and track project progress to ensure timely completion of system improvements.

Market Operations: The Integrated Marketplace launched in 2014 and replaced the existing Energy Imbalance Service market. It includes a Day-Ahead Market with Transmission Congestion Rights, a Reliability Unit Commitment process, a Real-Time Balancing Market replacing the EIS Market, and the incorporation of price-based Operating Reserve procurement. It is expected to yield its more than 115 participants up to $100 million in annual net savings by allowing load serving participants to use the least expensive available energy in the SPP footprint regardless of ownership while maintaining the reliability of the transmission system. It also allows generation owning participants another avenue to sell their energy.

Regional Scheduling: SPP ensures the amount of power sent is matched with power received.

Facilitation: The foundation of SPP's independent stakeholder process is collaboration. SPP Staff facilitates and fosters collaboration by helping our members work together by actively organizing meetings, developing straw proposals, and administering organizational decision making processes. The SPP staff facilitates organizational continuous improvement and efficiency efforts as well as the accomplishment of strategic goals.

Training: SPP offers continuing education for operations personnel at SPP and throughout the region. SPP's 2013 training program awarded 25,336 hours of continuing education to more than 900 operators from 27 member organizations.

Our Vision of the Future

Our vision for 2020 and beyond drives our strategies for this Strategic Plan covering the next five years. As the vision materializes over the coming years, the strategies and initiatives will evolve.

Our SPP 2020 crystal ball reveals the energy industry is still in a period of dynamic transformation. There are many factors at work which may significantly alter the structure of the industry and will drive the future requirements for transmission capacity. The pace at which "game-changer" technologies develop and are adopted has the potential to accelerate changes to the current environment. Change in public policy relative to carbon emissions, U.S. energy independence, and economic recovery may change the economics and mix of generation capacity and use. We considered several of the evolving factors affecting demand, resources, and transmission requirements of SPP and its members in the development of our Strategic Initiatives. The Plan envisions change; change we cannot define today. To continue to promote reliability excellence and meet the needs of our members in the footprint, the Plan is intentionally flexible providing for the investment in assets that allow both the market and regulation to serve the end users across the footprint in the most effective manner.

Demand Growth

It is forecasted that the demand for electricity in the United States will grow at an average rate of 1.23 percent annually for the next decade, with growth for the SPP region averaging 0.89 percent annually*. This forecast, however, is subject to a number of factors. SPP has also experienced pockets of significant increases in demand (northern Oklahoma, southwestern Kansas, Texas, and New Mexico) caused by the recent and sudden growth of oil and natural gas drilling and transportation industries. Significant increases or decreases in any of these factors could cause the aggregate demand to either increase or decrease substantially. We fully expect that the economic cycles and the energy market pricing fluctuations will produce wide swings in overall demand from year to year.

SPP's planning processes have identified a number of transmission projects needed for reliability purposes, and it is expected that those projects will be completed as scheduled or mitigation plans will be developed. The most significant transmission challenges facing portions of the SPP footprint are related to an increase in oil and gas drilling. New oil and gas drilling facilities are built faster than they can be captured in SPP's planning processes and models. Additionally, pipeline expansions are proposed for the region that will increase the need for electric transmission facilities to serve the pumping stations.

Continued annual growth in Energy Efficiency and conservation and DR programs is expected through 2023; however, the overall impact of these programs is relatively small. DR programs in the SPP RE footprint are voluntary and are primarily targeted for summer peak load reduction use. For the most part, SPP RE members include their own DR and Energy Efficiency programs as reductions in their load forecasts. The utilization of DR resources is not vital to meeting the energy and capacity obligations of the SPP Region.

*(NERC 2013 Long-Term Reliability Assessment 2014-2023)

Energy Generation Resources

One of the key strategic issues facing SPP and its members is the evolution from our current power generation mix to the generating capacity mix in 2020 and beyond. There are many competing factors that will impact the economics, availability, viability, and acceptability of various solutions. SPP needs to stay informed about continuing developments and engineer maximum flexibility and adaptability into its future plans. SPP also continues to have an influx of variable generation resources, leading to operational challenges. However, SPP is enhancing planning processes to better capture the impacts of the oil and gas projects and variable generation. Given the Region's generation capacity, transmission infrastructure, and enhancements being made to processes and models, SPP is expected to be able to meet any challenges — including environmental regulations—that may arise during the next decade.

Renewable Resources – SPP has access to some of the best wind and solar resources in the United States. This and a combination of public policy, decreasing cost, hedging value, environmental concerns, and the possible long-term depletion of fossil fuels are forces driving the increased usage of renewable resources. New construction of renewable power generation facilities will require the expansion of transmission capacities and the development of new tools and capabilities, such as enhanced forecasting and the need for backup generation requires balancing capabilities to reliably integrate renewables into the existing transmission system, particularly in the case of intermittently available resources. SPP's increase in installed variable generation, which is composed almost entirely of wind generation, will continue to cause operational challenges. These challenges arise because local area transmission congestion can occur as transmission projects are constructed and interconnected prior to completion of the planned transmission upgrades. In addition, SPP's reliability-focused studies are based on deterministic criteria and do not necessarily capture wind-generation outlet constraints given limited power-flow models and current assumptions about reduced wind output. The SPP RTO Consolidated BA will provide balancing benefits for the widespread installed wind generation. Impending unit retirements are not expected to impact reliability outside of the local area. SPP RE has sufficient capacity and is expected to continue to be sufficient despite resource retirements.

Energy Storage – The continued evolution of energy storage technologies or reutilization techniques is expected to complement the growth of renewable generation by enhancing its reliability and improving its cost effectiveness.

Carbon Policy – Future federal legislative initiatives restricting carbon emissions and its attendant pricing policy, will most likely impact the economics of coal, and perhaps natural gas,

as a base load energy generating resource. Additionally, environmental regulations promulgated will have cumulative impacts on the economics of coal as a generating resource. SPP's Operational Planning group performs bi-annual system planning studies in order to capture potential reliability impacts of retirements and retrofits. Analysis results that reveal reliability concerns are then passed to the SPP RTO long-term planning group. This study process consists of the creation of weekly snapshots — through the next four years — that take into account load forecasts, known transmission, and known generation outages. Local issues are reported to the SPP Transmission Operators involved. Since SPP has sufficient capacity, the impacts of long-term maintenance outages are expected to be more economic in nature.

Solar – Solar energy panels may experience significant improvements in efficiency and effectiveness due to exponential improvements in nanotechnology that will advance the commercial viability of solar power. Initially, this would result in the emergence of large solar fields and, over time, could spark a significant growth in distributed generation.

Nuclear Power – There could be a major shift in the increased support for expansion of nuclear power generation. It is possible that smaller, distributed nuclear plants could become more viable in the future.

Fuel Cells – Fuel cells, powered by natural gas or biomass have the potential to be new efficient sources of energy. They also have the potential to be effective distributed generation sources.

Shale and Tight Sandstone Gas – Technology breakthroughs in shale and Tight Sandstone gas production are allowing producers to tap huge resources that were previously uneconomic. Shale gas could have an important role as the industry moves to lower CO2 fuels, renewable energy sources. Gas produces lower CO2 emissions than coal and oil, but it still is a carbon emitting fossil fuel.

Coal Gasification – The prospect exists for continued advancement of coal gasification technology that will prolong the usage of coal as a viable alternative from an economic and a carbon-emission perspective.

Water Availability – Drought in portions of the SPP footprint is not uncommon and may affect power generation as decreasing water levels will contribute to the risk of generation availability.

Strategic Expansion of SPP Membership – Expansion of the SPP footprint may serve to offset some of the negative impacts of environmental policies by increasing the diversity of generating resources in the region. Geographic additions represent outstanding future opportunities but the challenge will be to maintain the value/equity relationships into the future.

Transmission

The electric transmission grid must evolve as generation capacity grows and the generation mix changes. The transmission system must be engineered for reliable and efficient operations, meeting both current and anticipated needs. SPP's planning processes have identified a number of transmission projects needed for reliability purposes, and it is expected that those projects will be completed as scheduled or mitigation plans will be developed. The most significant transmission challenges facing portions of the SPP footprint are related to an increase in oil and

gas drilling and environmental policies restricting carbon emissions. New oil and gas drilling facilities are built faster than they can be captured in SPP's planning processes and models. The cumulative effect of environmental regulations on generating capacity may significantly shift the planning for future transmission facilities. Factors impacting the operation and build-out of the future transmission system include at least the following:

Expansion of Renewable Resources – Many of the sources of green, renewable energy will be located in areas not now connected to the existing grid or the capacities will need to be greatly expanded. The development of these generation resources will spur development of the transmission system, tools, and operating structures, to help reliably integrate significant amounts of renewable resources.

Interregional Planning Coordination – The introduction of renewables, clean coal, revamped nuclear and distributed generating resources into the mix of traditional generating resources will require greater interregional perspective, planning, cooperation, and coordination.

Market Development – To extend and expand the benefits of utilizing the most efficient, effective, and reliable resources across the region for electric energy products, in the midst of a changing marketplace, the future will require more robust market capabilities. To fully optimize Independent System Operator/Regional Transmission Organization markets, regional grid operators will need to develop better mechanisms to extend benefits across the seams between market areas.

Smart Grid – Advanced technologies will be available in the future to both support robust grid operations and to help end-use customers make more informed decisions about their energy use and even providing energy to the grid.

Land Acquisition Restrictions – Land acquisition and "right of way" issues will likely continue to become more complex and time-consuming. This may be a limiting factor in the ability to adjust the transmission system in a dynamic manner as dictated by the rapidly changing generation and regulatory landscape.

Reliability Standards – Reliability standards are likely to grow in complexity and will require the ability to deal with multiple simultaneous contingencies. Zero tolerance and immediate remediation will become the expected norm.

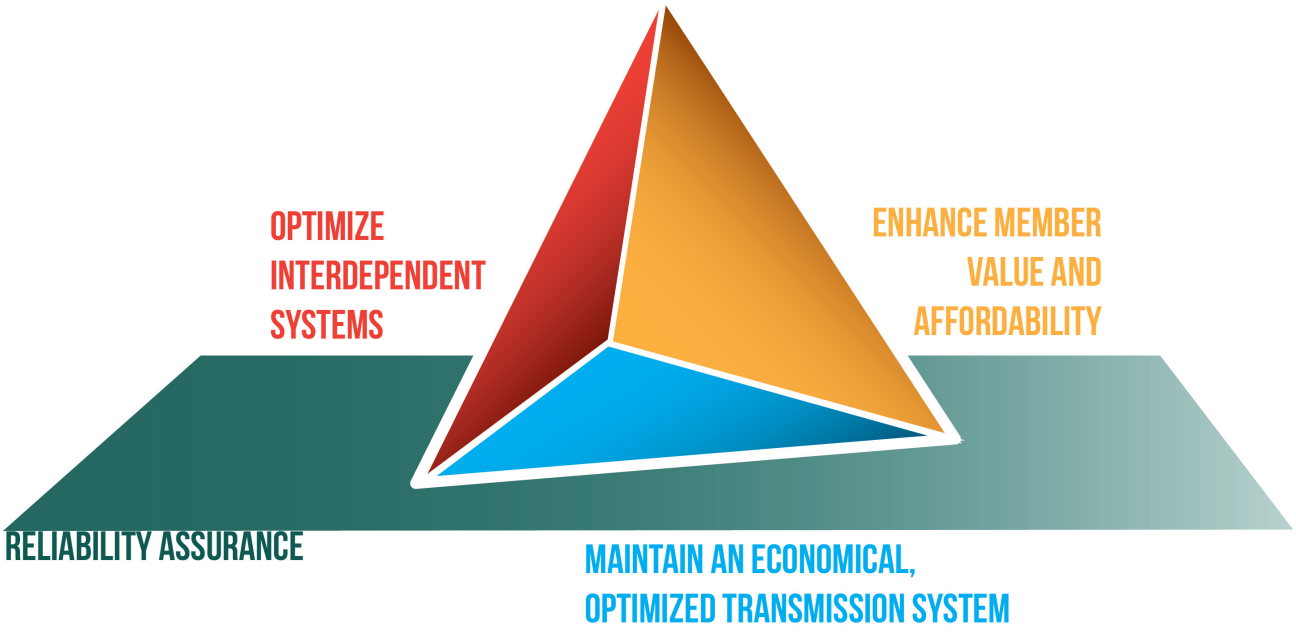
SPP's Four Foundational Strategies

The Strategic Planning Committee identified four foundational strategies to create the capabilities and operational processes needed to fulfill SPP's Mission and maintain or improve its Value Propositions in the face of a rapidly changing environment. These four strategies are interdependent with Reliability Assurance as the basis and the enhancement of member value and affordability as the discipline to drive all SPP strategies.

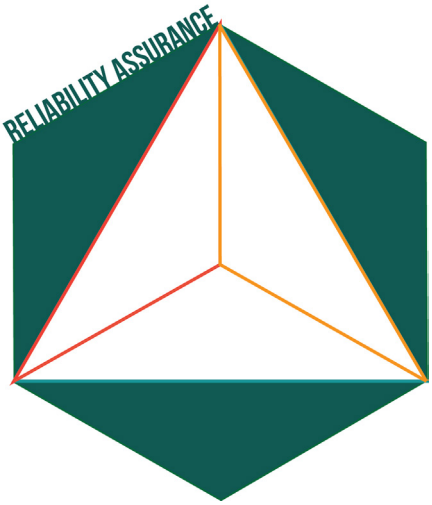
The foundational strategies are long-term, fundamental components of the SPP business model. This plan focuses on four broad Strategies to be continued, initiated, and/or completed over the next 10 years. The identified Initiatives become the tactical implementation of our strategies. These Initiatives are longer-term and strategic in nature but are likely to change over time as the baseline for SPP operations changes and as future changes require new initiatives to improve value and competitiveness. The key is planning ahead in order to flexibly adapt to a rapidly changing environment. We will be ready to take full advantage of future opportunities and respond to future constraints, to advantage of the end users in our footprint.

The strategic initiatives are also prioritized by categories A, B or C. Category A represents initiatives that are budgeted for which resources are committed and unbudgeted resources may be committed to achieve. Category B represents budgeted initiatives for which resources are committed to achieve within budget limits. Finally, Category C represents budgeted initiatives for which resources are committed to achieve, but may be taken from to achieve Priority A or B initiatives.

Foundational Strategies



Reliability Assurance

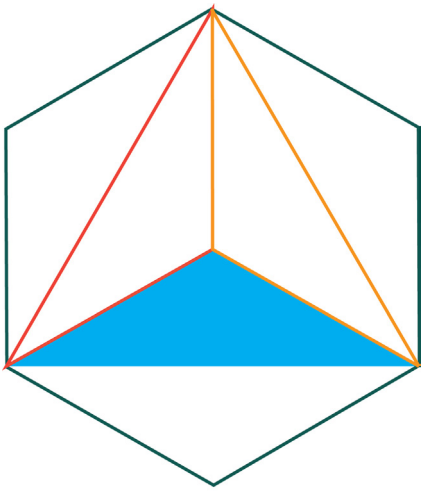


Reliability is the bedrock of SPP's business. During the planning horizon, SPP may begin to experience a shift toward greater reliance on variable energy resources while during the same time consumers may begin shifting to less predictable load patterns from the use of their own intermittent technologies, like distributed generation, price-responsive demand, and energy efficiency.

In order to continue to meet high levels of reliability, protocols need to be developed to ensure capacity margins are maintained and enforced. Understanding and integrating emerging categories of distributed energy resources technologies will shift how SPP plans and operates the system. Understanding the reliability implications of environmental policies and rules is increasingly important. SPP should take the evolutionary step to be in the position to opine from a reliability perspective such impacts and to understand the market implications associated with member resource plans. SPP is also investigating centralizing the data gathering from several Phase Monitoring Units PMU systems within the footprint to enhance reliability analysis and situational awareness.

At this time, SPP and its members are in the early stages of investigating appropriate smart grid programs. The ongoing evaluation of cyber and physical threats require SPP to continually reassess and upgrade defenses and risk management capabilities. SPP should continue to prevent such threats and improve its resilience and recovery.

Maintain an Economical, Optimized Transmission System



MAINTAIN AN ECONOMICAL, OPTIMIZED TRANSMISSION SYSTEM

The 2010 SPP Plan focused on the build out of a "robust" transmission system which was described as one containing an optimal mix of "highways" (300 kV+) and byways (below 300 kV) and minimizes future transmission constraints without over-investing in transmission capacity. A robust system creates immense new value for SPP members and end users in the SPP region.

In 2012, SPP members completed 111 transmission projects totaling more than $1 billion. The SPP Board has authorized Notices to Construct roughly $8 billion of transmission grid upgrades. This represents the culmination of efforts begun seven years ago to get transmission built in SPP's footprint.

Additionally, in 2010, the Integrated Transmission Planning Process was just beginning and since its inception, 2 ITP-20 studies, 3 ITP-NT studies, 1 ITP-10 study and 1 ITP Special study (HPILS) have been performed. Subsequently, the FERC issued its Order 1000,

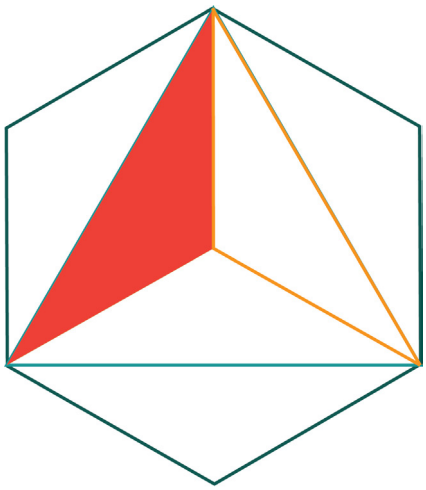
which fundamentally changes SPP's planning process by introducing competition to build the transmission facilities resulting from SPP's studies.

SPP and its members have also been reforming the Aggregate Planning and other transmission service processes. With all these changes, including the introduction of the Integrated marketplace, the strategy is to check our planning processes and consider holistically adjusting them.

Additionally, with the continued changes in the generation portfolio within the SPP footprint and North America, consideration should be given to export pricing mechanisms. Because of SPP's geographic location in the Eastern Interconnection and ties with the Western Interconnection and ERCOT, SPP is uniquely situated to play a key role in the strategic processes necessary to identify critical corridors via rightsizing key lines during rebuilds, reconfiguring grid topology, and potential converting select lines from AC to DC operation to manage congestion and improve overall grid efficiency across North America.

Enhance and Optimize Interdependent Systems

SPP implemented its Integrated Marketplace (Marketplace) on March 1, 2014. This centralized unit commitment across 16 former BA Areas that have consolidated operations into a single BA — known as the SPP RTO BA. The Marketplace is a five-minute, security-constrained economic dispatch in order to provide Real-time balancing activities, while also providing centralized commitment of resources through the end of the operating horizon.



OPTIMIZE INTERDEPENDENT SYSTEMS

Additional enhancements (including member-driven as well as FERC-directed) are also being made. With the evolving resource mix and climate change, increased coordination between natural gas and power industry with regard to data and information sharing can improve SPP's situational awareness to deal with extreme load conditions and the risk pipeline curtailment potential. This can also facilitate more economically efficient centralized dispatch.

If the Members are required to move toward more utilization of natural gas as a generation fuel, it will be necessary to coordinate with the natural gas industry to facilitate additional gas transmission pipelines and developing the operating flexibility that will allow the generators to follow load.

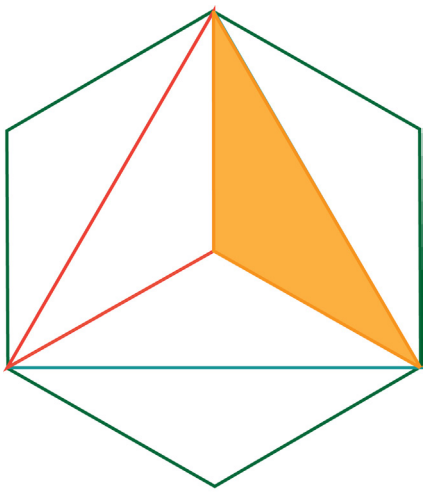
Additional value can be derived by optimizing transmission on the boundary seams of the region. This will be a comprehensive effort to focus on inter-regional agreements to plan, allocate cost, optimize usage and provide for fair compensation for the use of transmission across boundaries.

Enhance Member Value and Affordability

SPP continually strives to improve the value it delivers to its members. In addition to the Strategic Initiatives noted above, SPP will create and continually improve work processes to ensure they are efficient and effective.

SPP recognizes the importance of prioritization of strategic initiatives. SPP will continue to work with it members through the Markets and Operation Policy Committee to share the costs and benefits of member-facing project initiatives and quarterly provide visibility of the entire portfolio.

SPP will further develop processes and a communication strategy to demonstrate to members, regulators, and customers the general inter-zonal equity of costs and benefits for strategic initiatives.



ENHANCE MEMBER
VALUE AND AFFORDABILITY

Foundational Strategies and Related Strategic Initiatives Descriptions

Reliability Assurance

We all depend on a reliable electric grid to power our homes and businesses. Reliability is the bedrock of SPP's mission of helping our members work together to keep the lights on — today and in the future. National concerns and initiatives are changing the traditional paradigm. The nation is seeking to be more energy independent, economically prosperous, and environmentally conscious. These initiatives are enabled by a robust transmission infrastructure and the understanding of a regional resource plan. Resource adequacy is a fundamental component necessary to determine that future peak demands can be accommodated on a reliable basis. SPP will continue to anticipate and respond rapidly to changes that are directed toward understanding and ensuring resource adequacy with enforceable capacity margins, resource planning, and integration of variable energy resources and grid resilience.

Capacity Margin Refinement (Priority A)

Resource adequacy will become an increasingly important component of SPP's responsibility as the Balancing Authority. Having a situational awareness as well as the ability to enforce adequacy through capacity margin requirements and other mechanisms are tools to accomplish this. The MOPC has already begun an effort to assess this important issue and completion of that effort is a high priority.

Regional Resource Need and Value Assessment (Priority B)

SPP's active coordination and understanding of its members' resource plans will provide state and regional insight. This is not the typical Integrated Resource planning, but coordination through a formulaic approach that will provide SPP the necessary overview of resource adequacy and other reliability concerns. This coordination would occur with the members and the Regional State Committee to provide assessments. These assessments are needed to also better inform the transmission planning process because major changes in the generation fleet in SPP's footprint will have major changes to the transmission that is planned and constructed in SPP.

Reliability Assessments of Environmental Rules (Priority A)

The EPA has issued Rules that will impact the generation fleet in North America and the impact of these Rules on the SPP region have consequences that need to be understood from a reliability perspective. The state-by-state and regional remedies to comply with the EPA's Rules will also impact the security constrained economic dispatch that SPP performs on behalf of its members. Understanding the regional resource needs will provide the necessary insight for SPP to accommodate these changes. The fuel mix needed to run the fleet of generation in SPP's footprint needs to be understood by SPP in order to reliably operate the system in the most

effective manner. As policy changes are mandated dependency on single fuel sources creates a reliability risk that requires better situational awareness from an operation standpoint. SPP needs to assess the separate and cumulative regional reliability and market impacts associated with EPA's Rules. Completion of this effort is a high priority.

Integration of Variable Energy Resources (Priority C)

With growth of variable energy resources (e.g., wind and solar) in SPP and its greater responsibility as the Consolidated balancing authority comes the challenge of maintaining system frequency using these units within their standard limits. Operators will face more challenges in real-time to integrate these variable energy resources and will need tools and process to manage the balance between supply and demand in cost effective and reliable ways. Understanding and integrating distributed energy technology and resources also represents a shift in how SPP will plan and operate the grid. Lastly, new transmission technologies like syncrophasers and advanced line switching may impact the way the grid is managed. Having the ability to take advantage of such technology, where cost-effective, will be needed.

Grid Resiliency – Cyber and Physical (Priority B)

Cyber threats continue to be a risk for the industry requiring constant vigilance, risk assessment and rapid ability to be able to recover from such instances. Ongoing standardization and new security initiatives are only a part of what SPP needs to be engaged in in order to prevent such incidences. SPP also needs to work with its members and others to develop the tools, skills, and processes to be able to rapidly recover from cyber and physical incidences. New standardization efforts have also been focused on physical protection for critical infrastructure that place ISOs/RTOs in the position of independent certification on behalf of their members.

Reliability Excellence (B)

SPP is committed to promoting excellence in reliability for the organization, its members, and its registered entities. Working together with the SPP Regional Entity, an independent and functionally separate division within SPP, SPP will continue to promote and work to improve bulk power system (BPS) reliability. The SPP Regional Entity oversees regional reliability standard development; monitors and enforces registered entities' compliance with reliability standards; and assesses and evaluates BPS reliability. SPP will accomplish these goals through reliability forums, lessons learned, advice, and other guidance intended to train, educate, and assist. SPP further promotes reliability excellence by providing leadership in national forums that are focusing on improving the language and focus of national reliability standards. The goal of reliability excellence is the continuous achievement of zero-defect compliance to NERC and regional reliability standards in the most cost-effective manner possible. The SPP RE has identified two particular areas of focus to highlight in the plan: Relay Misoperations Improvement and Event Analysis.

Relay Misoperations Improvement (Priority B)

NERC has identified protection-system misoperations as one of the greatest risks to Bulk Electric System reliability. The SPP RE and RTO have been tracking misoperations in the SPP footprint for several years. The data indicates that communication failures are a leading cause

of regional misoperations; this characteristic is not unique to the SPP footprint. SPP's technical organizational groups should continue their misoperations research and analysis to increase the success rate of regional operations. This is an ongoing effort.

Event Analysis (Priority B)

In 2010, NERC formalized an Event Analysis process that classifies system events in categories from 1 (least severe) to 5 (most severe). Analysis of system events, regardless of their severity, leads to improved operations through the discovery of lessons learned and trends that can be shared continent-wide. Analyzing even minor events will generally lead to corrective actions that could prevent other, more serious events from escalating. SPP established the regional Event Analysis Working Group in 2011 to foster the analysis of events in the footprint. SPP RE works with impacted entities and NERC following events to determine categorization and root causes, and to develop lessons learned as appropriate. The SPP RE and RTO encourage a proactive review of all system events to continue to improve BES reliability. This is an ongoing effort.

Maintain an Economical, Optimized Transmission System

In the 2010 Strategic Plan, SPP has just begun the implementation of its Integrated Transmission Plan. Evolution of the process has occurred and this Plan addresses the opportunity to evaluate where the process stands and make enhancements to the process to accommodate policy changes directed by the FERC and other events like the implementation of the Integrated Marketplace. Lastly, the abundance of Variable Energy Resources in SPP's footprint presents a strategic opportunity for SPP and its Members.

Integrated Transmission Planning Check and Adjust (Priority B)

The continued growth of SPP's transmission system and markets as well as the challenges and opportunities presented by changing federal and state energy and environmental regulations, growing NERC compliance requirements, and the potential for efficiencies in SPP's generation interconnection process, aggregate transmission service study process, demand the adoption and implementation of more progressive, forward-thinking, regional planning processes. Planning engineers should continue to assess the metrics used to evaluate proposed projects; continue to evaluate planning the transmission system beyond the traditional planning criteria of first contingency ("N-1"); anticipate the transmission asset life-cycle curve impacts; take into consideration the changes resulting from the implementation of the transmission congestion rights market as part of the Marketplace; implement and improve technical skills necessary to develop transmission project costs; incorporate the Aggregate Generation (AG) and Generator Interconnect (GI) queue components holistically into the process; and begin utilizing the data collected by operators to better plan the transmission system to meet operational contingencies.

While SPP facilitates the future development of a robust electric transmission infrastructure that will enable the maximum use of capital-intensive generating resources for the benefit of all end-use customers in the SPP footprint, it should continue to develop and enhance policies, tools, and practices to optimize the use of the existing transmission system. This will involve

SPP and its stakeholders taking a fresh look in a consolidated, coordinated manner at how the existing system is managed, maintained, and could be improved, with a particular emphasis on any progress that could be made toward making additional transmission service available to SPP's customers on the existing system without unduly compromising system reliability.

Cost Controls on Competitive Transmission (Priority A)

SPP in response to FERC's Order 1000 has created a competitive solicitation process to award Notices to Construct to entities that have been qualified to build and maintain transmission facilities. The process contemplates an independent review of proposals submitted in response to Requests for Proposals. Cost is just one factor that must be considered. Bids estimates are required to be submitted not to exceed plus or minus 20 percent; however, controls will need to be developed to ensure that facilities awarded to be built will not exceed the bandwidth of accepted costs.

Flexibility to Address Policy Initiatives (Priority B)

The Integrated Transmission Planning Process needs to be able to anticipate and be able to respond to policy initiatives promulgated at the Federal, State, and local levels. As just one example, the cumulative effect of environmental regulations on generating capacity may significantly shift the planning for future transmission facilities. Other policy driven changes such as increases in distributed generation and the expansion of renewable portfolio standards can impact transmission. Non-policy driven initiatives can also impact the way transmission is planned. The planning process needs to flexible enough to react expeditiously to observations and signposts that been anticipated as potential scenarios.

Value Pricing: Import/Export Strategy; and, Cost Allocation (Priority B)

SPP's Highway/Byway cost allocation process was not intended to fairly recover the cost of transmission built and used solely to export renewable resources to markets outside of SPP. The abundance of variable energy resources in portions of SPP's footprint represents a strategic opportunity for SPP and its members to capitalize on the ability to export this resource for profit. Further, there could be policy driven circumstances that would necessitate the importation of energy from other markets or regions into the Southwest Power Pool that the current cost allocation methodology was not intended to facilitate. Stakeholders should develop proposals to develop, build, and allocate costs and benefits of transmission necessary to accomplish this strategic initiative.

Fair and Equitable Cost/Benefit Allocation Policies (Priority A)

It is the goal of SPP and its members for the development of a regional transmission system to provide a balance of cost and benefits among members. In order to accomplish this goal, a Task Force effort has been underway for three years now to "review the reasonableness" of the regional and zonal allocation methodology associated with the impacts of the Base Plan Upgrades with NTCs issued after June 19, 2010 to each pricing zone within the SPP Region." The Task Force is evaluating allocation of transmission costs that could leave some member's benefits below a reasonable threshold thereby creating an inequitable impact. The Task Force working with the Regional State Committee is to determine possible long-term solutions that

may include, but are not limited to, adjustments to the Highway/Byway, transfer payments, approval of projects in specific zones, or other options. Completion of this effort is a high priority.

Enhance and Optimize Interdependent Systems

This plan recognizes as both a threat and an opportunity the interdependency of its mission with other organizations and industries; specifically, transmission on the seams of SPP's region and the natural gas industry.

Transmission (Seams) (Priority A)

As SPP develops and produces regional plans it is identifying transmission projects that could provide opportunities to realize benefits across SPP's regional boundaries. SPP must work to foster cooperative and joint transmission projects with its neighboring systems to support broader inter-regional planning. Progressive development will prevent inter-regional optimization from being the next limiting factor to SPP's progress. SPP, working with the Seams Steering Committee, will work to improve Seams Agreements to not only improve operational coordination, but also address inter-regional planning and transmission cost allocation. The objective is to identify specific projects across seams and work with neighbors on how to plan and build with equitable cost allocation and recovery methods. SPP must embark on a comprehensive effort to enhance its transmission processes that would identify and develop projects that can be built on the seams of the region. This would include working with regulators and state governments to educate that it is most economic for the region to build transmission, not just for today but for the longer term. This comprehensive effort would include; how to plan, estimate, and allocate costs; use, compensate, and interregionally optimize such facilities. Completion of this effort is a high priority.

Optimize Market Efficiencies Along Seams (Priority A)

The Integrated Marketplace launched in 2014 and replaced the existing Energy Imbalance Service market. It includes a Day-Ahead Market with Transmission Congestion Rights, a Reliability Unit Commitment process, a Real-Time Balancing Market. Now that the Marketplace is functioning, completion and finalization of market-to-market provisions amongst our neighbors is paramount. SPP needs to begin to think about how utilize the existing and committed transmission to take advantage of generating resources on both sides of the seams.

Optimize Natural Gas Pipeline System Seams (Priority A)

SPP has actively worked toward improving its coordination with natural gas interstate and intrastate pipelines within its footprint since the formation of the Gas Electric Coordination Task Force (GECTF) in early 2013. During its first year, the task force focused on building relationships between SPP's and pipelines' operations staff, developing SPP's understanding of the pipeline connections with power plants in SPP, and responding to FERC's inquiries regarding SPP's gas and electric coordination activities. Following the adverse weather conditions of the 2013-2014 winter and FERC's issuance of various Notice of Proposed Rulemakings (NOPR's) and Orders, the task force has focused on gas and electric scheduling "harmonization" activities

and coordinating with other working groups to develop appropriate SPP protocol and tariff changes to reduce the "seams" scheduling and operating barriers to increased reliability and availability of gas-fired generating units within the SPP system during adverse winter weather conditions. As a result of SPP's successful outreach to the pipelines, representatives of several such pipelines routinely participate in the GECTF's meetings and contribute to the task force's discussions.

Increased coordination between natural gas fuel pipelines and the power industry in operations and short and medium term planning, with regard to data, information and scheduling, can improve SPP's situational awareness and fuel supply reliability of gas-fired plants in the SPP footprint. In operations, improved coordination can enhance real-time operational decision- making regarding gas curtailments during abnormal load and weather conditions, improve real-time economic dispatch decisions, and increase fuel supply reliability by committing natural gas-fired generating units multiple days in advance of adverse winter weather conditions, when pipelines are most constrained. SPP should continue to improve coordination and information sharing with the natural gas pipelines in its footprint for the purpose of reducing barriers to increased reliability, which may include entering into comprehensive agreements with pipeline providers and member companies to provide real-time supply visibility to SPP operations.

A FERC NOPR and an accompanying order appear likely to require changes in the timing of the start of the natural gas "day" and the corresponding daily and intraday nominations cycles. A companion FERC order also requires RTO's, such as SPP, to either change their Day Ahead and intraday generation commitment timing to be consistent with changes to the gas day timing, or to explain why such changes are not needed. During the next few years, SPP and its members will need to be prepared to either defend the current timing of SPP's Integrated Marketplace Day Ahead and Reliability Unit Commitments, or expend the time, effort, and funds to change the timing of such generation commitments to more appropriately match changes that FERC may order in the timing of the natural gas nomination cycles.

Optimize Data Seams (Priority C)

SPP systems and processes rely on a multitude and numerous exchanges of data internal to SPP, with our members and customers, as well as with external parties. These data exchanges were designed to meet the requirements of the systems and processes as they evolved to the present. These data seams might be either limiting the efficiency of SPP, or its members and customers, or even need to be changed or enhanced to more effectively and efficiently meet the present functions of SPP as well as to prepare SPP and its members for the future challenges in the electric industry. This effort would need to be coordinated with any system or process change in SPP as well as the strategic effort to improve the seams between SPP and other electric industry participants and with other seams mentioned in this foundational strategy.

Integrated Marketplace Enhancements (Priority B)

SPP has underway a project effort to deliver essential incremental capabilities to the Integrated Marketplace for delivery during 2015. Project Pinnacle is comprised of seven projects that were either FERC-mandated or member-driven and were Board-approved for completion, including: Pseudo Tie-Out, Long-Term Congestion Rights (LTCR), Regulation Compensation (RegComp), Market to Market (M2M), Enhanced Combined Cycle (ECC), Phase II Environment Build-Out (EBO) and Live Track. Staff will continue to work with members to facilitate timely completion of these strategic market enhancements.

Enhance Member Value and Affordability

Communication Strategy on Value/Affordability (Priority A)

SPP's members are facing rising natural gas prices, increases in utility capital expenditure to upgrade the grid, increases in utility capital expenditures to comply with environmental regulations and liabilities associated with pension obligations. All these costs contribute to higher retail rates while (as noted earlier) demand is expected to stay relatively flat. SPP's organizational costs, as well as the cost of new transmission, are additional costs that our members must incur and pass on to end-use consumers. The values associated with these costs are not well communicated. SPP needs to develop a comprehensive communication plan that articulates the value of its services provided to members. A component of this communication strategy should translate the value of SPP down to the typical end-user of an SPP member or load serving entity. Completion of this effort is a high priority.

Fair and Equitable Cost/Benefit Allocation Policies (Priority A)

As noted above, some member entities have been allocated transmission costs that leave them below a certain benefit threshold thereby creating, for them, an inequitable impact. A Task Force and Regional State Committee effort to determine possible solutions that may include, but are not limited to, adjustments to the Highway/Byway, transfer payments, approval of projects in specific zones, or other options is underway. Completion of this effort is a high priority.

Project Management Office Best Practices and Rigor (Priority B)

All major SPP projects include cost/benefit studies as part of the investment justification process. SPP will perform impact assessments for major projects before authorizing them and then will employ PMO best practices to ensure costs are not exceeded and benefits are maintained. These best practices also ensure that project efforts are prioritized appropriately. Working with the membership and translating the value of project efforts as part of the communication plan described above.

SPP will continue its benchmarking and measurement processes for major investment projects. This will provide feedback on the assumptions made in the cost/benefit justifications by evaluating the actual experience compared to the projected benefits, the cost/benefit estimating process can be improved. Further, it will provide a baseline for evaluation of transmission upgrades, inter-zonal equity, and unintended consequences.

A key component of SPP's ability to continue to create member value is the ability to continually improve the effectiveness and efficiency of all administrative, coordination, planning, and operational processes. Healthy organizations periodically review their processes and procedures to ensure that they are most effectively achieving their original business intent. This initiative targets both lowering operating costs and building more efficacious operating methods through objective review of SPP processes and procedures. SPP has adopted the LEAN process to help facilitate a corporate-wide effort. LEAN is a set of principles and tools used to create and deliver the most value from the customer's perspective while consuming the fewest resources and fully utilizing the skills and knowledge of those who perform the work routinely. Staff will ensure continued penetration and expansion of this effort.

Enhanced Market Analytics (Priority B)

Now that the Marketplace has been successfully launched, SPP is updating and enhancing its analytics of the market. Utilizing this data and information will assist in telling the story of the value SPP provides to the Membership.

Strategic Membership Expansion and Improved Stakeholder Processes (Priority A)

Another way to create member value is to expand SPP's membership base to better leverage the aggregate economies of scale and minimize seams issues. As opportunities arise SPP will continue to strategically pursue expansion of its membership and geographic footprint to further leverage its capabilities and lower costs. SPP senior staff will follow a structured and transparent process under which the impact of adding prospective new members will be disclosed to existing stakeholders prior to agreements being finalized, as well as a transition process so that issues are identified and dealt with in working groups in which members will participate. Each new member integration will be unique, making it difficult to develop a standard integration process; however, SPP will develop an integration framework designed to minimize adverse impacts to existing members.

Communication and Education (Priority C)

There are a large number of rapidly changing industry developments that could dramatically transform the future operating environment for SPP and its members. These developments are likely to be in the form of breakthrough technologies or major legislative initiatives coming from a wide range of sources. SPP and its members must stay informed of new developments to have as much lead time as possible to position for emerging issues.

SPP will continue its efforts to communicate with and educate various audiences about SPP's initiatives and external issues potentially impacting the organization. In concert with the Regional State Committee and in conjunction with its members, SPP will visit the region's federal/state regulatory and legislative constituencies to discuss issues of joint concern. Other audiences with which SPP needs to stay appropriately engaged include: members and stakeholders, the general public, other industry organizations, and the media.