

# Integrated Transmission Planning

*Process Document*

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## Overview

The Integrated Transmission Plan (ITP) is SPP's new approach to planning what transmission is needed to maintain reliability and provide economic benefits to the SPP region in both the near- and long-term. Implementing the ITP will enable SPP and its stakeholders to better facilitate the development of a robust transmission grid that will give regional customers improved access to the SPP region's diverse resources. Development of the ITP was driven by the Synergistic Planning Project Team (SPPT) and the planning principles it developed, including the need to develop a transmission backbone large enough in both scale and geography to provide flexibility to meet SPP's future needs.

The ITP will create synergies by integrating three existing processes: the Extra High Voltage (EHV<sup>1</sup>) Overlay, the Balanced Portfolio, and the SPP Transmission Expansion Plan (STEP) Reliability Assessment. By integrating these processes, additional efficiencies are expected to be realized in the Generation Interconnection (GI) and Aggregate Transmission Service Request (AS) study processes. The ITP will work in concert with SPP's existing sub-regional planning stakeholder process, and will continue in parallel with the NERC TPL Reliability Standards compliance process.

The ITP is an iterative three-year process that includes 20-Year, 10-Year, and Near-Term Assessments. The process seeks to target a reasonable balance between long-term transmission investment and congestion costs<sup>2</sup> to customers. Study assumptions will include fuel and emissions costs, load and generation forecasts, types and locations of new generation, generation retirements, market structures, and wind profiles. Analysis must also encompass a plausible collection of assumptions for each specific model run, including varying levels of Renewable Electricity Standards, demand response, fuel prices, and governmental regulations. The Economic Studies Working Group will develop the metrics and process for qualifying and quantifying the projects for the ITP, including Adjusted Production Cost, impact on losses, reliability and environmental impacts, capacity margins, and operating reserves.

ITP plans that are reviewed by the MOPC and approved by the BOD will allow staff to issue Notification to Construct (NTC) letters for approved projects needed within the four-year financial commitment horizon. An Authorization to Plan (ATP) will be issued for projects needed beyond the four-year financial horizon. Once an NTC or ATP is issued, the project will be reviewed annually to ensure the continued need for the project and the required in-service date.

Beginning in January 2010, SPP will perform its planning duties in accordance with the ITP process. Evaluation of future scenarios that may affect the ITP will occur during the first half of 2012 for the 20-Year Assessment and during the second half of 2013 for the 10-Year

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<sup>1</sup> EHV refers to voltage levels of 345kV and higher

<sup>2</sup> The cost of transmission congestion, assuming that demand is fixed and must be met, is the net cost of the replacement power that must be supplied by other means (e.g., from generators located closer to the loads to be served) to make up for deliveries that cannot be executed as requested (October 2003, In *Electricity Transmission Congestion Costs: A Review of Recent Reports*, Retrieved July 24, 2009 from <http://certs.lbl.gov/pdf/54049.pdf>).

Assessment. The 20-Year Assessment will begin in year one and be completed in year two. The 10-Year Assessment will begin during year two and be completed in year three. The Near-Term Assessment will be performed each year to ensure reliability and to incorporate local planning requirements.

Successful implementation of the ITP will result in a list of transmission expansion projects and completion dates that facilitate the creation of a robust, flexible, and cost-effective transmission network in the SPP footprint.

## Synergistic Planning Project Team and Principles

Synergy is defined as, “The interaction of two or more agents or forces so that their combined effect is greater than the sum of their individual effects.”<sup>3</sup> In January 2009 the SPP Board of Directors (BOD) created the SPPT to address gaps and conflicts in SPP’s transmission planning processes; to develop a holistic, proactive approach to planning that optimizes individual processes; and to position SPP to respond to national energy priorities. The SPPT consists of a cross section of SPP stakeholders including representatives from Arkansas Electric Cooperative Corp., the Arkansas Public Service Commission, Dogwood Energy, the Public Utility Commission of Texas, Prudential Capital Group, Westar Energy, and SPP staff.

The SPPT recommended the organization adopt a new set of planning principles; develop and implement an Integrated Transmission Plan (ITP); develop a plan to monitor the construction of projects approved through the ITP process; and identify Priority Projects that continue to appear in system reviews as needed to relieve congestion on existing flowgates and connect SPP’s eastern and western regions. The SPPT recommended that the Regional State Committee establish a “highway-byway” cost allocation methodology for approved projects.

The SPPT created the following principles to drive development of the ITP:

- Focus on regional needs, while considering local needs as well; long range plans (both 20-year and 10-year) are to be updated every three years while near-term plans are to be updated annually.
- Plan the backbone Transmission System to serve SPP load with SPP resources in a cost-effective manner. The transmission backbone should:
  - Enhance interconnections between SPP’s western and eastern regions
  - Strengthen existing ties to the Eastern Interconnection.
  - Provide options for planning and coordination to the Western Electricity Coordinating Council and the Electric Reliability Council of Texas grids in the future.
- Incorporate a 20-year physical modeling and 40-year financial analysis timeframe.
- Better position SPP to proactively prepare for and respond to national priorities while providing flexibility to adjust expansion plans.

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<sup>3</sup> <http://dictionary.reference.com/browse/synergy>

## **Transitioning Existing Processes into the ITP**

### **EHV Overlay, Balanced Portfolio, and Reliability Assessment**

The EHV Overlay is a strategic plan for building an extra high voltage transmission backbone, using stakeholder-approved scenarios that look ahead 20 years or more. Although SPP has produced three EHV Overlay studies, these studies have remained a strategic effort to provide long-term planning guidance. The EHV Overlay provided a blueprint for expansion planning which was incorporated into the STEP Reliability Assessment and SPP Tariff study processes.

The Balanced Portfolio was a strategic initiative to develop a cohesive group of economic transmission upgrades that benefit the SPP region, and to allocate the cost of those upgrades regionally. Creating the Balanced Portfolio required extensive commitment from stakeholders and staff; multiple scenarios were analyzed, and consensus had to be reached regarding study assumptions, achieving benefit balance among all revenue zones, and establishing final cost transfers between zones required to achieve balance. The Balanced Portfolio of projects totaling over \$700 million was approved by the BOD in April 2009.

The STEP Reliability Assessment is an annual review of transmission expansion needs over a 10-year horizon for reliable delivery of currently committed transmission service. The process typically focuses on near term, least-cost solutions necessary to meet NERC Reliability Standards. While the Reliability Assessment covers a 10-year study horizon, only those projects within a four-year financial commitment period receive Notification to Construct (NTC) letters and are included in the GI and AS study models. The historical assessment process requires a significant amount of staff and stakeholder effort.

Although the ITP is designed to integrate these planning processes, it is imperative that the new process capture the original goals of each. The EHV Overlay and Balanced Portfolio plans focus on economic projects that benefit the SPP region and beyond through congestion relief, utilization of the area's large renewable resources, and expansion of markets. The STEP Reliability Assessment aims to ensure compliance with applicable NERC Reliability Standards, SPP Criteria, and local planning criteria while coordinating planning activities with neighboring entities.

### **Generation Interconnection and Aggregate Study Processes**

The GI process determines transmission expansion necessary to connect new resources to the grid. The GI process includes sequential evaluation of requests to connect generation. With the significant number of requests for interconnecting wind generation, the GI process has also included cluster studies that aggregate these requests into groups. When cluster studies were performed, it became clear that Network Upgrades to add substantial amounts of renewable energy are not simple attachments or lower voltage upgrades, but require the addition of EHV facilities, including many that were designated in the EHV Overlay project.

The AS study process evaluates new transmission service requests over three open queue windows annually to ensure SPP's ability to serve the requested load(s) within SPP as well as exports from SPP through Point-to-Point Transmission Service. These requests are evaluated simultaneously to provide for more cost-effective transmission expansion.

The GI and AG study processes will not be replaced by the ITP. However, through the forward-looking and proactive approach of the ITP, it is expected that investments in the Transmission System will allow greater and timelier access to lower-cost resources across the grid. In addition, identifying solutions that provide more capacity than that which is necessary to simply "keep the lights on" will actually enable more generator interconnection and transmission service requests to be accommodated. Staff will continuously monitor the effect the ITP has on these processes and seek additional avenues for improvement.

### **Local Area (Sub-Regional) Planning**

While the ITP process will incorporate local area planning criteria in its reliability analysis, it is not intended to supplant, but rather work in concert with the existing sub-regional planning stakeholder process. The quarterly meetings scheduled by SPP, review of local planning criteria, and local area studies will still be performed, as well as any special high priority studies requested by local area stakeholders. As with the GI and AS Study processes, staff will maintain an awareness of opportunities where the ITP process and sub-regional planning efforts will benefit each other.

### **NERC TPL Reliability Standards Compliance and Reliability Assessment**

As a NERC Regional Entity (RE), SPP will continue to serve as a Planning Authority and perform various analyses to support SPP's compliance with NERC TPL Reliability Standards. This effort includes near-term, long-term and stability mitigation analysis using base line models (i.e. SPP Model Development Working Group models).

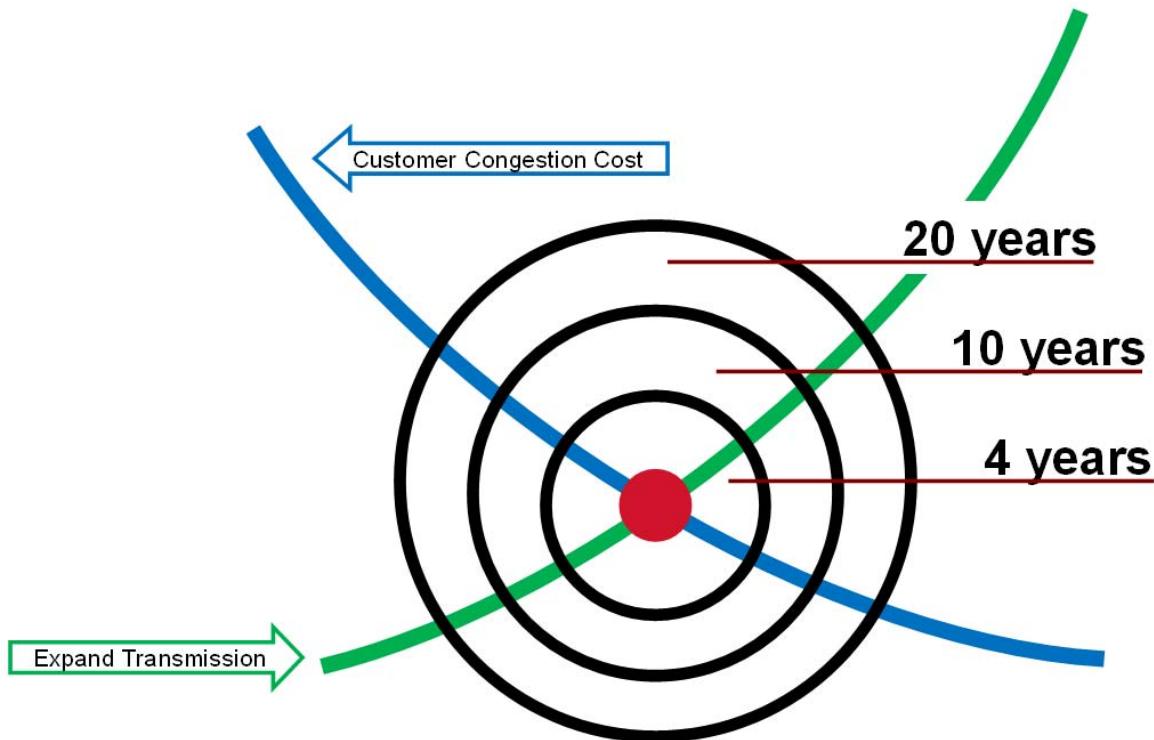
In addition, staff will provide seasonal (summer/winter) and Long-Term Reliability Assessments (LTRA) of the SPP region as required of each Regional Entity on an annual basis. These assessments include discussions of system adequacy, key issues, and future trends that could impact reliability of the bulk electric system.

Both the SPP NERC TPL Reliability Standards compliance process, as well as the LTRA, will continue in parallel with the ITP and will not be replaced by the ITP process. Results of the annual NERC TPL Reliability Assessment will be taken into consideration as a part of the ITP process, and ITP results may be discussed in the NERC LTRA report.

The ITP reliability assessment will consist of, but not be limited to, the traditional N-1 assessment to identify thermal and voltage violations as done in a traditional NERC compliance assessment, but is not intended to replace the SPP NERC TPL Reliability Assessment for compliance reporting purposes.

## ITP Design

The ITP process is a component of the STEP and is an iterative three-year process that includes 20-Year, 10-Year, and Near-Term Assessments. As illustrated below, the process seeks to target a reasonable balance between long-term transmission investment and congestion costs<sup>4</sup> to customers. As appropriate investments in new transmission are made, the amount of congestion costs to which customers are exposed decreases. Finding the appropriate investments is dependent on the assumptions used to represent possible future outcomes. The size of the circles illustrates the amount of variability that must be studied to identify the appropriate transmission expansion projects. This targeted approach is both forward-looking and proactive by designing with an end in mind of having a robust, flexible, and cost-effective transmission network which adheres to the ITP principles and also keeps the FERC “Nine Planning Principles”<sup>5</sup> in the forefront.



<sup>4</sup> The cost of transmission congestion, assuming that demand is fixed and must be met, is the net cost of the replacement power that must be supplied by other means (e.g., from generators located closer to the loads to be served) to make up for deliveries that cannot be executed as requested (October 2003, In *Electricity Transmission Congestion Costs: A Review of Recent Reports*, Retrieved July 24, 2009 from <http://certs.lbl.gov/pdf/54049.pdf>).

<sup>5</sup> The Transmission Provider’s planning process shall satisfy the following nine principles, as defined in the Final Rule in Docket No. RM05-25-000: coordination, openness, transparency, information exchange, comparability, dispute resolution, regional participation, economic planning studies, and cost allocation for new projects (June 23, 2008, In *18 CFR Part 37*, Retrieved July 24, 2009 from <http://www.ferc.gov/whats-new/comm-meet/2008/061908/E-1.pdf>).

## **Development of Assumptions**

Assumptions used in the ITP will be developed during the first and second year of each three-year ITP cycle for the 20-Year and 10-Year Assessments, respectively, and annually for the Near-Term Assessment. Assumptions will include those needed for economic studies, reliability studies, and scenario<sup>6</sup> development. Once developed, staff will present the assumptions to stakeholders within an ITP study scope document for approval by the Economic Studies Working Group (ESWG), Transmission Working Group (TWG), Markets and Operations Policy Committee (MOPC), and Regional State Committee (RSC) as appropriate. The ITP study scope will be revisited during each three-year cycle of the ITP.

The ESWG will guide the development of the assumptions used in the economic assessments. Assumptions needed for these assessments include, but are not limited to: fuel and emissions costs, load and generation forecasts, types and locations of new generation, generation retirements, market structures, hurdle rates, wind profiles, etc. These are important assumptions that must be decided by stakeholders for inclusion in the modeling for the ITP process.

The analysis must also encompass a plausible collection of assumptions for each specific model run including, but not limited to, varying levels of the following:

- Renewable Electricity Standards
- Load growth
- Demand response
- Energy efficiency
- Fuel prices
- Environmental and governmental regulations

The TWG will guide the development of the assumptions for the reliability impact assessments. The TWG will need to consider what transactions are modeled, when projected generation is allowed into the models, and how projects identified from the AS and GI processes are considered in the ITP.

Once the scenarios have been developed and the levels of imports/exports have been decided for each scenario, they will be submitted for approval through the MOPC and RSC. Consideration of these alternative scenarios will allow the ITP to take into account a great deal of variability by considering the economic, environmental, governmental, and technological changes likely to affect the electric industry. Initiatives such as plug-in hybrid electric vehicles, smart grid, Renewable Electricity Standards, energy storage and conversion applications, and other future technologies will change the way the electric grid is utilized. How SPP plans, directs construction of, and recovers the costs for electric grid expansion must also evolve to meet these initiatives.

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<sup>6</sup> “Scenario” refers to the collection of assumptions used in a model run to represent different possible future outcomes that may affect transmission planning.

## **Model Development**

With oversight from the TWG, MDWG, and ESWG, staff will construct the study models for the 20-Year, 10-Year, and Near-Term Assessments by utilizing the Model-On-Demand (MOD) tool to capture the most accurate load, generation, and topology for each entity. The models for each assessment will be consistent with the time horizon being studied, e.g. the 20-Year Assessment will include a subset of models that span 20 years, the 10-Year Assessment will include a subset of models that span 10 years, and the Near-Term Assessment will include a subset of models that span a shorter timeframe. The exact models used in the analysis will be outlined in the ITP study scope document. It is expected that the models will explicitly represent the entire SPP Transmission System.

## **Triennial 20-Year Assessment**

The first phase of the ITP process is the 20-Year Assessment, which will be used to develop an EHV backbone network. This value-based planning assessment will use a diverse array of power system and economic analysis tools to thoroughly study the Transmission System to identify cost-effective backbone projects needed to provide a grid flexible enough to reasonably accommodate possible changes characterized by the various scenarios. Because the degree to which the power transmission landscape will change over this time frame is not currently known, Transmission System expansion will be designed with flexibility in mind. The projects identified as a result of the 20-Year Assessment will be expected to provide benefits to the region across multiple scenarios.

1. The 20-Year Assessment will be initiated every three years.
2. The scenarios to be studied and the assumptions to be used in the studies must be developed through the various stakeholder groups (Cost Allocation Working Group (CAWG), ESWG, TWG, RSC) and approved through the MOPC and BOD.
3. Economic models will be developed through the ESWG, and power flow models will be developed through the existing SPP planning model process via MDWG using the assumptions developed previously.
4. Staff will perform a system constraint assessment by identifying additional flowgates using an appropriate software tool to perform a transfer analysis and determining which 100 kV and above facilities are impacted by 345 kV and above outages within SPP and first-tier neighbors<sup>7</sup>. The analysis will help determine which 345kV and above alternatives relieve or reduce impact to the 100kV and above facilities. The transfer analysis will consider transfers involving SPP to and from the north, south, east and west, and first-tier neighbors. Any

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<sup>7</sup> SPP's 1<sup>st</sup> Tier Transmission Owners include Western Area Power Administration – Upper Great Plains East (WAUE), MidAmerican Energy Company (MEC), AmerenUE (AMMO), Associated Electric Cooperative, Inc (AECI), Entergy (EES), Cleco Corp, Electric Reliability Council of Texas (ERCOT), Public Service of New Mexico (PNM), and El Paso Electric (EPE).

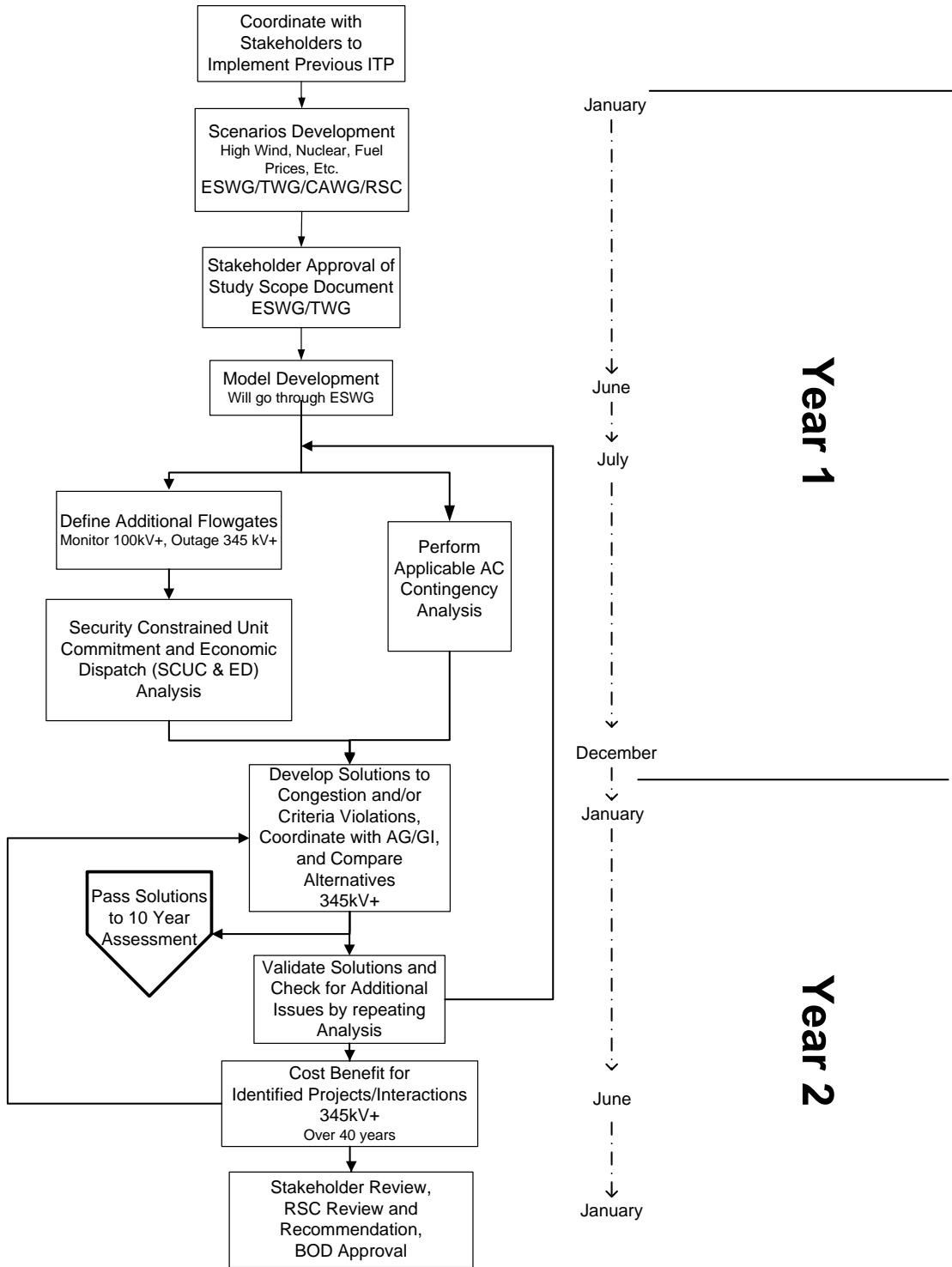
flowgates identified in addition to the current list of flowgates would be posted for stakeholder review.

5. An appropriate economic study tool will be used to analyze all identified flowgates and the points of congestion on the SPP Transmission System. This will be done using security constrained unit commitment and economic dispatch (SCUC/ED) over 8,760 consecutive hours for each model.
6. A limited ITP reliability assessment consistent with the applicable NERC Reliability Standards will be performed on the EHV system to help identify the solutions that provide the most cost-effective, robust backbone. The purpose of this assessment is strictly to test the robustness of the Transmission System and is not intended to be a test for NERC Reliability Standards requirements<sup>8</sup>.
7. 345 kV and above solutions to the criteria violations and/or congested facilities will be identified with input from stakeholders. Staff will request suggested solutions from stakeholders and develop alternative plans for the EHV system. As an initial screening, staff will compare Adjusted Production Cost benefits among the plans to help determine the best combination of projects that would be used in the detailed cost benefit analysis. During this phase, staff will coordinate solutions with the AS and GI processes to best accommodate the high-demand areas for the SPP footprint. Issues identified that are not resolved with 345 kV and above solutions will be deferred to the 10-Year and Near-Term Assessments.
8. A follow-up analysis will be performed by repeating the steps above on the identified solutions to validate the solutions and check for any additional criteria violations and/or congested facilities that may have been created.

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<sup>8</sup> Adherence to NERC Reliability Standards will continue to be checked through a separate NERC Reliability Compliance Assessment

## 20-Year Assessment Process



## **Triennial 10-Year Assessment**

The second phase of the ITP process is the 10-Year Assessment. The 10-Year Assessment is a value-based planning approach that will analyze the Transmission System and identify 100 kV and above solutions to issues not resolved in the 20-Year Assessment. The middle circle of the “target” diagram represents this portion of the assessment because the assumptions used to develop the scenarios will be narrower.

Because of the narrower focus, the 10-Year Assessment will be utilized in integrating the 100 kV and above facilities into the EHV backbone and to meet such needs as: a) elimination of criteria violations; b) the mitigation of known or projected congestion; c) improved access to markets; d) backbone expansion staging; and e) improved interconnections. In the 10-Year Assessment the scenarios considered in the 20-Year Assessment will be narrowed to consider a combination that are determined to be most likely in the shorter time frame.

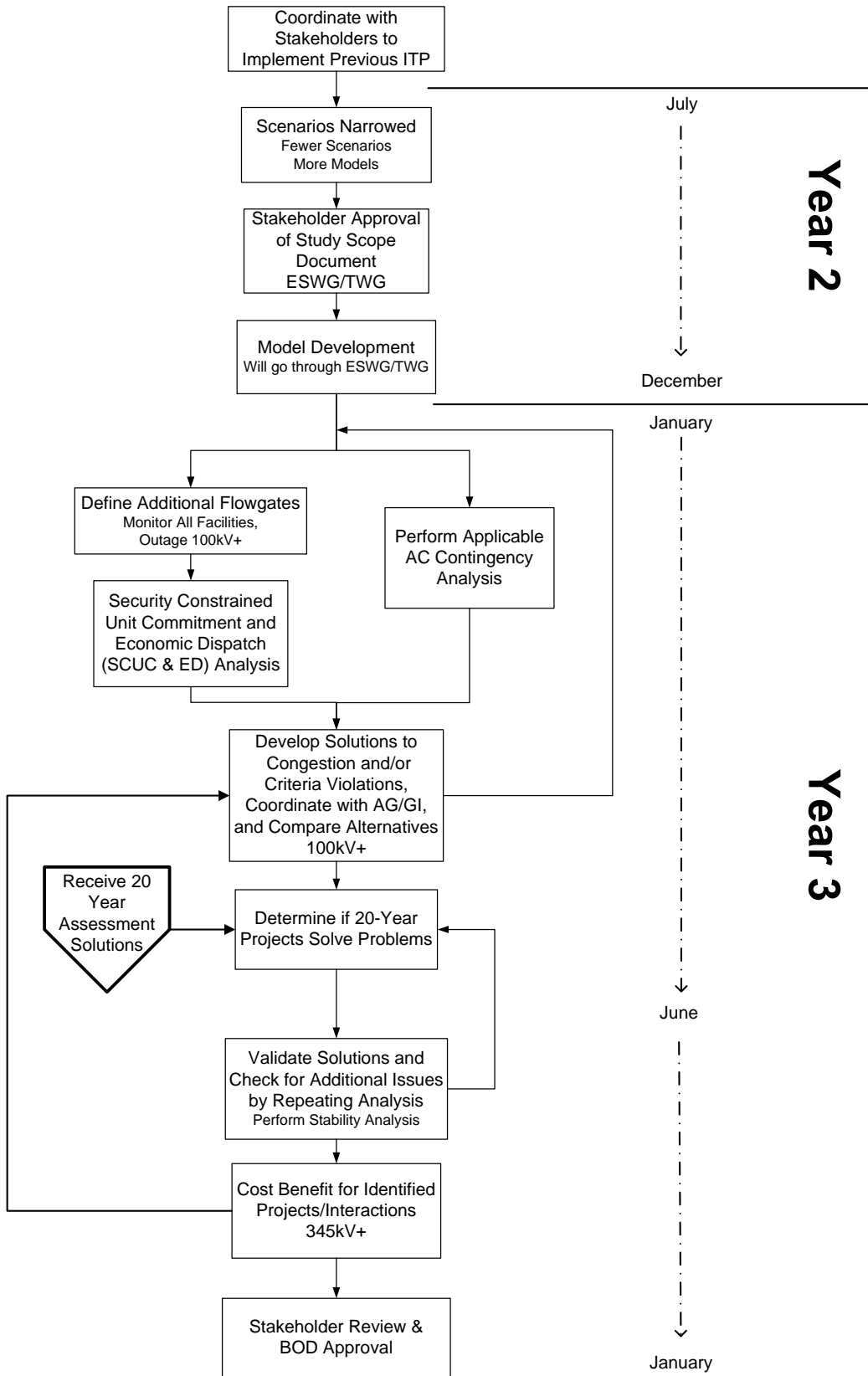
Economic and reliability analysis will be utilized to further refine and establish the timing of the projects identified in the 20-Year Assessment. The 10-Year Assessment will be reviewed annually taking into account the results of the annual NERC TPL Reliability Assessment. It is anticipated that many of the ITP projects identified through the combination of the 20-Year and 10-Year plans will eliminate or significantly defer the need for some reliability driven projects on the underlying Transmission System by strengthening the system with a more robust backbone.

1. The 10-Year Assessment will be initiated every three years.
2. The scenarios will be narrowed and assumptions refined through the stakeholder process within the boundaries of the previously-approved scenarios in the 20-Year Assessment.
3. The economic models will be developed through the ESWG using the assumptions developed above. The power flow models used in this analysis will include a summer peak for each scenario and an off-peak case, and will be developed through the existing SPP planning model process via MDWG.
4. Staff will perform an initial analysis using applicable NERC Reliability Standards on scenario power flow models that represent the applicable load profiles and generation dispatch from each scenario. All facilities (including but not limited to 69 kV) identified in the models will be monitored for this analysis in consideration of 100 kV and above solutions to the problems identified.
5. Staff will concurrently identify additional congested facilities using an appropriate software tool by performing a transfer analysis and monitoring all modeled facilities and outaging the 100 kV and above facilities within SPP and first tier neighbors.
6. An appropriate software tool will be used to analyze all identified congested facilities on the SPP Transmission System. This will be done using SCUC/ED over 8,760 consecutive hours

for each model. This analysis will help identify projects required since the new flowgates would identify congestion on the Transmission System.

7. 100 kV and above solutions to criteria violations and/or congested facilities will be identified with input from stakeholders. Staff will request suggestions for solutions from stakeholders and perform a preliminary assessment of benefits to determine the solution to be presented in the final ITP. During this phase, staff will coordinate solutions with the AS and GI processes to best accommodate the high-demand areas for the SPP Transmission System footprint. 100kV and above solutions will be evaluated for lower voltage facilities criteria violations or congestion. Issues identified that are not resolved with 100 kV and above solutions will be deferred to the Near-Term Assessment for resolution.
8. A check will be performed to determine if projects identified in the 20-Year Assessment will eliminate or defer any projects identified in the 10-Year Assessment. This check will be performed by replacing lower voltage solutions with the higher voltage solutions identified in the 20-Year Assessment and rerunning the economic and previously run contingency analysis.
9. A follow-up analysis will be performed by staff repeating the steps above on the identified solutions to validate the solutions and check for any additional criteria violations and/or congested facilities that may have been created. Staff will also perform a stability analysis on these results.

### 10-Year Assessment Process

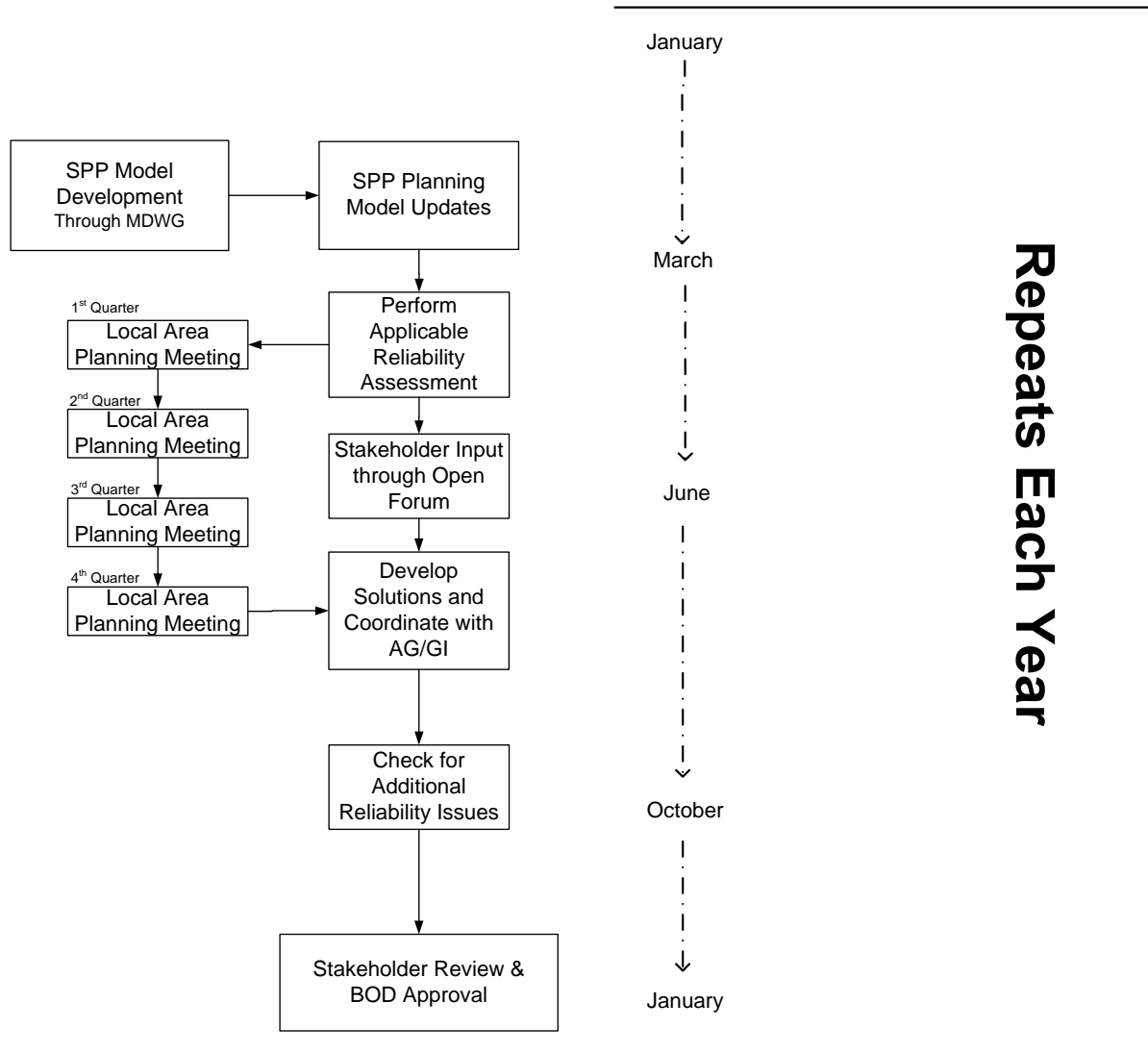


## **Annual Near-Term Assessment**

The third and final phase of the ITP process is the annual Near-Term Assessment, which will be performed annually on a rolling window to be defined in the ITP study scope document. Similar to the existing STEP Reliability Assessment process, this assessment will analyze the Transmission System for solutions to violations of NERC Reliability Standards while incorporating individual Transmission Owner planning requirements. The assumptions for this assessment will be narrowed further than those for the 20-Year and 10-Year Assessments, as illustrated by the “target” diagram. This narrower focus is intended to ensure continuous adherence to NERC Reliability Standards while allowing the ITP process as a whole to focus on the creation of a Transmission System that meets the ITP planning principles.

1. The assumptions for the assessment will be developed through the TWG.
2. The power flow models will be developed through the existing SPP planning model process via MDWG using the assumptions developed in step one (1).
3. Staff will perform an analysis using applicable NERC Reliability Standards and Transmission Owner local planning requirements to check for reliability issues.
4. Staff will solicit stakeholder input on solutions through an open stakeholder forum.
5. A list of proposed solutions will be developed by staff through collaboration with stakeholders. During this phase, staff will coordinate solutions with the other ITP assessments, AS, and GI processes to identify the most preferred regional solutions. The local area planning meetings will provide input into the solution development.
6. A follow-up analysis will be performed to check for any additional reliability issues.

### Near-Term Assessment Process



## **Cost-Effectiveness Analysis**

The ESWG will develop the metrics and process for qualifying and quantifying the projects for the ITP. The ITP should use a screening process to identify projects for the various 20 and 10 Year Assessments. The ITP should use a decision analysis approach where the requirements (legal, regulatory, NERC reliability, etc.) are met, and other objectives (enhanced deliverability, increased wholesale competition, environmental concerns, west to east transfer, local economic benefits, etc.) are also considered. The benefits of this type of analysis provide stakeholders an encompassing view of the tangible and intangible benefits of the ITP in a logical format. The metrics and their importance are dynamic and may change over time. The ITP should incorporate different perspectives on the importance of projects that cannot be captured on a mathematical basis as part of the metrics. The ESWG will be developing and refining this process and these techniques as part of the continuing ITP. Metrics included in the analysis may include, but are not limited to the following:

1. Adjusted Production Cost
2. Impact on losses
3. Environmental impacts
4. Reliability impact
5. Capacity margin
6. Operating reserves
7. Transmission Service
8. Deliverability of capacity and energy to load

## **Coordination with Neighboring Systems**

Transmission expansion within SPP inevitably has an impact on other entities outside the SPP footprint. It will be critical to coordinate potential transmission development with these entities and determine shared and individual system benefits. Beyond reliability benefits, there will be opportunities to accomplish long-term resource access objectives in a collaborative manner and improve economic efficiencies between systems. At a minimum, situations will arise where additional upgrades between SPP and neighboring systems will need to be coordinated to most efficiently integrate ITP projects.

SPP currently has Joint Operating Agreements (JOA's) with Associated Electric Cooperative, Inc. and the Midwest ISO that facilitate coordinated planning and operations, and discussions are underway to establish agreements with other entities. Staff recognizes the critical need to coordinate SPP's planning efforts and cost allocation policies with its neighbors, and recognizes the challenges associated with that coordination. A comprehensive list of agreements and their status will be maintained on the Engineering Planning section of SPP.org.

## **ITP Review and Approval**

A list of projects from the assessment(s) performed throughout the year will be presented to stakeholders for discussion and review at the annual fall planning summit. Staff will then make any necessary adjustments to the ITP based on stakeholder feedback. The final plan will be included as a component of the STEP report and presented to the MOPC and the BOD at their January meetings for approval.

## **NTC and ATP Process**

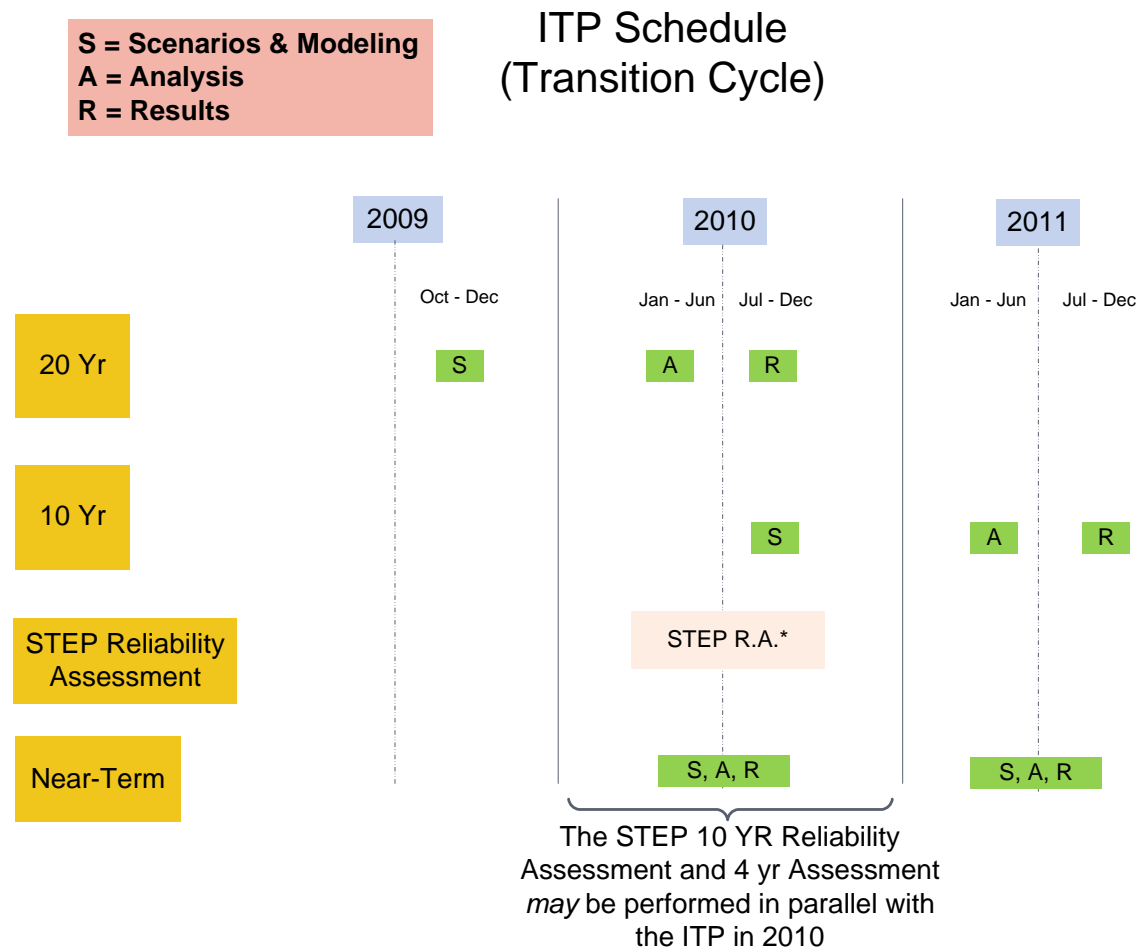
Once the ITP is reviewed by the MOPC and approved by the BOD, staff will issue NTC letters for approved projects that are needed within the four-year financial commitment horizon. An NTC is the official SPP document directing designated Transmission Owner(s) to construct approved Network Upgrades to meet SPP Open Access Transmission Tariff (OATT) requirements.

An Authorization to Plan (ATP) will be issued for projects identified in the ITP that are needed beyond the four-year financial horizon. SPP will inform the appropriate parties that an ITP project is likely to be needed and will need to be included in all future study models, including the AS and GI study models. Current STEP 10-Year Reliability Assessments, GI, and AS models do not include projects needed beyond the four-year financial commitment horizon, so the ATP represents a significant change regarding modeling for the planning processes.

Once an NTC or ATP is issued for a project, it will be reviewed annually during each cycle of the ITP process to ensure the continued need for the project and the required in-service date. Modifications to previously approved NTC or ATP will be presented to the MOPC and BOD at their next regularly scheduled meeting for approval as necessary to issue a letter of NTC/ATP modification.

## Transition to ITP

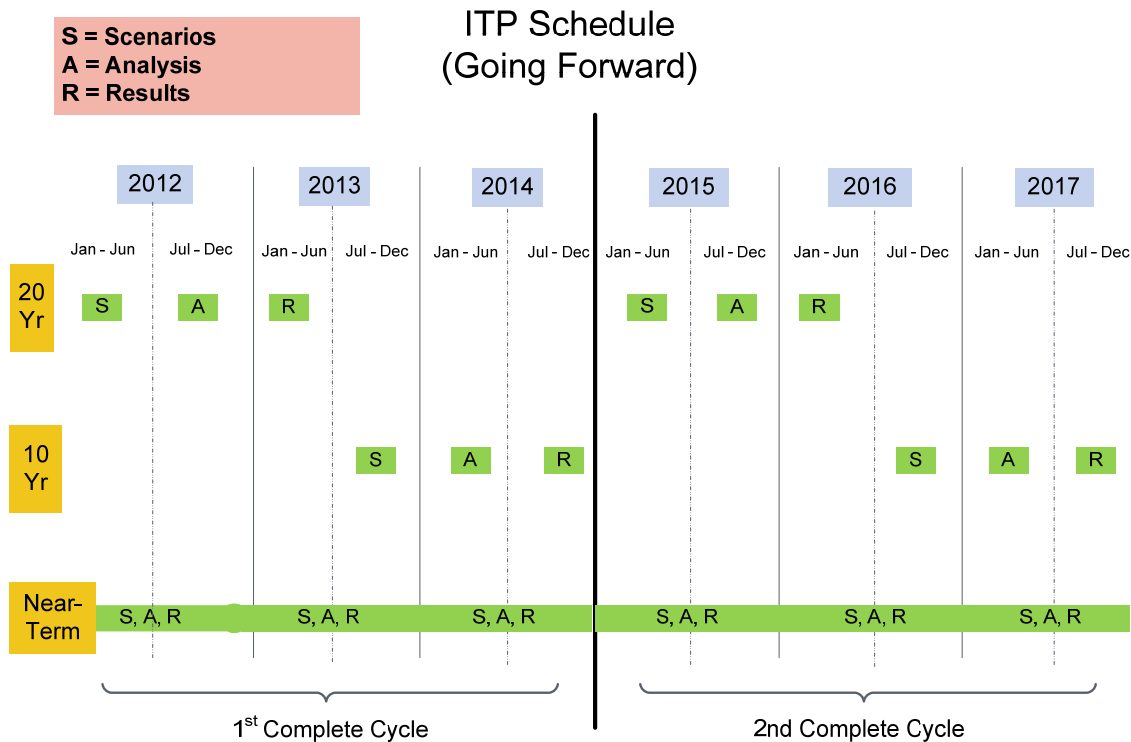
The final iteration of the current STEP 10-Year Reliability Assessment process will be in 2009 or 2010, pending Tariff language approval for the ITP. Beginning in January 2010, SPP will perform its planning duties in accordance with the ITP process. The first iteration of the ITP process will be performed on a compressed timeline with a recommended plan being presented to the MOPC and BOD in January 2011 as a component of the STEP. For this to be accomplished, the scenarios and assumptions to be studied must be developed through stakeholder groups prior to January 2010 for staff to begin the ITP.



To help transition between the two processes, the SPPT encouraged staff to consider Priority Projects that demonstrate a near-term need to relieve flowgate congestion and to improve interconnections between western and eastern sections of the region. Staff is currently assessing projects submitted by stakeholders and projects identified in previous studies for consideration in the Priority Project process. The list of Priority Projects will be submitted to the MOPC and the BOD for approval consideration in October 2009.

## Schedule

The ITP is a three-year iterative process, and staff will continually work with stakeholders on implementation of the approved ITP from the previous iteration. Evaluation of the various future scenarios that may affect the ITP will occur during the first half of year one (2012) for the 20-Year Assessment and during the second half of year two (2013) for the 10-Year Assessment. The 20-Year Assessment will begin in year one and be completed in year two. The 10-Year Assessment will begin during year two and be completed in year three. The Near-Term Assessment will be performed each year to ensure reliability and to incorporate local planning requirements. At the end of each year the ITP, as a component of the STEP, will be presented to the MOPC and BOD for approval consideration. If drastic changes occur in the economic, regulatory, or environmental landscape, the ITP projects could be re-evaluated or re-timed at any stage of the process.



## **Stakeholder Input**

There will be opportunities for stakeholder involvement throughout the ITP process. As with all SPP processes, the ITP is designed to be an open and transparent assessment of what investments are needed to build the grid of the future. Its implementation can only be successful through the commitment of SPP members, regulators, and other stakeholders. Input and support will be needed on issues including:

- What should the backbone of the Transmission System look like?
- Where should the on and off ramps be?
- Development of the plausible scenarios and modeling assumptions.
- Reviewing the list of proposed ITP projects.
- Following through with project construction.

## **Conclusion**

The ITP is a regional instrument for solving region-wide issues which include local area planning issues. The integration of SPP's existing EHV Overlay, Balanced Portfolio, and STEP Reliability Assessment processes will not only be easier to manage, but will also foster a new era of planning that is both forward-looking and proactive while also creating efficiencies for the AS and GI processes. For the SPP Transmission System to become an enabler to meet both short-term and long-term needs, the proposed ITP will be based on the plan that most cost-effectively accommodates the variability of a number of most likely scenarios. Through the collaborative efforts of staff and stakeholders, a robust, flexible, and cost-effective Transmission System can be designed and constructed.