

SPP's Consolidated Planning Process (CPP)

Explanation and application to other planning regions

Executive Summary: *This review examines the initial SPP CPP implementation to provide assessment of the aspects that can be transferable to other planning regions. The review provides areas where the CPP is transferable with the Flex and Invest approach and should be able to be universally applied and where that would require significant regional redesign. Additionally, the review identifies potential aspects of the CPP which could be considered SPP-specific items, which may or may not be transferable to other regions.¹*

CPP: What FERC Approved

FERC accepted SPP's tariff revisions to establish CPP effective March 1, 2026, subject to conditions (FERC Docket Nos. ER26-414-000 and ER26-414-001). SPP's core proposal was to combine regional transmission planning and generator interconnection into a single, integrated process under new Attachment AY of its Tariff. The framework includes both Transmission Assessment Procedures and Generator Connection Procedures.

The CPP framework is organized around a three year, recurring planning cycle with two major assessment tools:

1. CPP-10: a 10-year transmission assessment conducted annually during the cycle to address reliability, economic, public policy, and generator interconnection needs, including the Interconnection Cluster Study.
2. CPP-20: a 20-year transmission assessment conducted in the first year of every three-year cycle, focused on long-term needs, extra-high-voltage and high-voltage facilities, plausible futures, sensitivity analysis, GRID-C rate development, and planned interconnection locations.

SPP framed CPP as a response to historic load growth, interconnection delays, cost and timing uncertainty, high withdrawal rates, and the inefficiency of operating separate regional planning and generator interconnection tracks. FERC accepted the framework after finding that SPP continues to comply with regional transmission planning and cost allocation requirements and that its Generator Connection Procedures satisfy the independent entity variation standard for generator interconnection deviations.

The new GRID-C charge is a one-time entry fee that generators are required to pay to connect to the grid. This charge rate is determined in advance on a per MW basis and provides certainty to generators connecting to the SPP system. The GRID-C revenue collected will be directly credited to transmission customers under Schedule 11, *Base Plan Zonal Charge, Subregional Charge, and Region-Wide Charge*, of the SPP Tariff. GRID-C is an important and potentially challenging part of the CPP.

¹ For addition information and updates, see the SPP's Consolidated Planning Process website: <https://www.spp.org/engineering/consolidated-planning-process/>

Transferability Matrix

The following matrix summarizes the review of the CPP process. The CPP is still very new and SPP is in the initial implementation of the process. SPP also has other initiatives that provide support for the CPP and achieving its stated goals. The projections are based on the currently known implementation approach and expected transferability to other regions.

CPP Element	Transferability	Difficulty	Impact	Key Barrier
Integrated Planning and Interconnection	High	Medium	Low	Process redesign
Long-Term Planning ²	High	Medium	Low	Stakeholder acceptance
20-Year Horizon	High	Medium	Medium	Forecast uncertainty
Multi-Value Planning ²	High	High	Medium	Benefit measurement
Enhanced Siting Signals	High	Medium	Medium	Developer Acceptance
PILs	Medium-High	Medium	Medium	Planning Assumptions
GRID-C	Medium	High-Very High	High	Cost Allocation
H/B Cost Allocation	Low	Very High	High	Cost Allocation politics
ILTCR Structure	Low-Medium	Medium	Medium	Market Design
Resource Adequacy	Medium	Medium	Medium-High	Market Differences
Governance Model	Low	Very High	Low	Regional Structure

² The difficulty of transferring Long-Term and Multi-Value Transmission planning depends on how the region has implemented FERC Order 1920. These reforms may already be largely in place. However, the implementation of benefit calculations may require enhancement to capture the interconnection benefits afforded by a CPP-like strategy

Transferable Elements of the CPP

The overall architecture of the CPP is generally transferable to other planning regions because of its focus on the high-level philosophy rather than specific market design or planning details. SPP has no state that operates under retail choice (Texas portion in SPP is exempt). While SPP could be considered as most similar to MISO, its compliance with FERC precedent creates a framework that has transferability to other planning regions. Seven elements have been identified as generally transferable.

Transferable Elements:

1. Integrated Transmission Planning and Interconnection
2. Long-Term Proactive Planning
3. 20-Year Horizon
4. Multi-Value Transmission Planning
5. Enhanced Generation Siting Signals
6. GRID-C Methodology
7. Planned Interconnection Location (PILs)

Transferable Element 1: Integrated Transmission Planning and Interconnection

Regional transmission planning and generator interconnection have operated as separate processes. Transmission planners evaluate long-term system needs, while interconnection engineers evaluate individual generator requests or clusters of requests. These parallel processes often produce inconsistent investment decisions, duplicate studies, and inefficient transmission development.

CPP fundamentally changes this paradigm by integrating both functions into a single planning process retaining principals established under FERC Orders 890 and 1000. Rather than reacting to individual interconnection requests, SPP identifies regional transmission needs first and uses those findings to guide interconnection decisions. This approach reduces the likelihood that transmission upgrades are driven by the order in which projects enter the queue and instead emphasizes investments that provide long-term value to the region. It also ensures that transmission needs driven by the interconnection of new generation and by other reliability or economic needs can be considered at the same time, and solutions can be optimized to address the full set of transmission needs.

This principle is universally applicable because every RTO currently struggles with the disconnect between planning and interconnection. The key aspect in the CPP is that it primarily uses the existing SPP FERC approved planning process. Other regions should be able to retain their existing planning processes with the CPP being an overlay that combines the generation interconnection into a single process.

Transferable Element 2: Long-Term Proactive Planning

Traditional planning processes are largely reactive. Transmission upgrades occur only after reliability deficiencies or generator requests reveal system limitations. CPP moves toward proactive planning by evaluating transmission needs over both 10-year and 20-year horizons. This allows SPP to identify transmission corridors before congestion develops and before large clusters of generation or load appear. For regions expecting significant growth in renewable generation, manufacturing, or AI-driven

data centers, proactive planning reduces uncertainty and provides developers with clearer investment signals.

All planning regions apply long-term planning in some form. The CPP long-term proactive planning approach should be transferable to other regions and would move all regions to a more proactive planning approach for grid expansion, one that also considers the needs of new generation. The CPP allows for regions to develop specific aspects of long-term planning that meet regional needs and expectations.

Transferable Element 3: 20-Year Assessment Framework

SPP had already developed substantial experience with long-term transmission assessments, including 20-year, before CPP. Most regions still rely primarily on shorter planning horizons of 10 and 15 years. Moving to a 20-year assessment for a consolidated process, as now required under Order 1920 for regional transmission planning, may be a significant challenge in other regions. The 20-year time frame adds significant uncertainty in the planning process and potentially greater transmission build out and associated costs. It is expected that going to a 20-year horizon may be a challenge in many regions. The benefits of the CPP could be realized through implementation with a shorter planning horizon and not ultimately require going to 20-year assessments, which may work better in other regions.

Transferable Element 4: Multi-Value Transmission Planning

Historically, transmission projects were often justified using a single objective, such as reliability or economics. SPP has been aggressive in recognizing the multi-value aspects of transmission. The CPP takes this even further by recognizing the value transmission brings while not focused on limited requirements for the upgrades. CPP evaluates projects using multiple benefit categories simultaneously, including:

- Reliability improvements
- Congestion reduction
- Production cost savings
- Resilience
- Future resource integration
- Public policy objectives
- Generator interconnection

This produces transmission investments that serve multiple purposes and therefore create broader regional value.

Under Order 1920, all FERC-jurisdictional regions must now recognize the multi-value aspects of transmission, including seven enumerated benefits at a minimum. Many of the benefit categories that SPP includes in the CPP process line up with the benefit streams required under Order 1920, suggesting that the CPP's benefit calculations could transfer easily into the transmission planning reforms already underway in many regions to comply with the FERC order. Where the CPP process goes beyond the seven enumerated benefits, FERC has provided Transmission Owners the flexibility to propose these additional benefit streams and others into their regional transmission planning process.

FERC Order 1920 Benefit Metric	Related SPP Benefit Category
Avoiding or deferring reliability transmission infrastructure replacement	Reliability improvements
Reducing loss of load probability or planning reserve margin	N/A
Production Cost Savings	Production Cost Savings
Reducing transmission energy losses	N/A
Reducing congestion due to transmission outages	Congestion Reduction
Mitigating extreme weather events and unexpected system conditions	Resilience
Increasing capacity cost benefits by reducing peak energy losses	N/A
N/A	Future resource integration
N/A	Public policy objectives

Most RTOs already evaluate multiple benefit streams for certain transmission upgrades, although not always through an integrated planning framework. Some of the benefit streams used in the CPP may be a challenge for other regions to implement similar to SPP, but the concepts should be transferable. FERC approval of this process provides a foundation for other regions to expand the benefit evaluation of transmission.

Transferable Element 5: Enhanced Generation Siting Signals

Today's generator interconnection queues frequently encourage speculative development. Developers submit multiple interconnection requests simply to determine where transmission capacity may exist. CPP reverses this process.

Because transmission planning under CPP identifies preferred areas for development, developers receive stronger signals regarding where projects are most likely to interconnect successfully.

The result is:

- fewer speculative queue entries,
- lower withdrawal rates,
- lower study costs,
- more efficient transmission utilization.

The transferability of this concept to other regions should be achievable with recognition for the need of regional differences.

Transferable Element 6: GRID-C Methodology

GRID-C represents one of the most innovative aspects of CPP. GRID-C establishes standardized interconnection development contributions that reduce uncertainty for developers and create

predictable cost signals. This implementation depends heavily on SPP's specific tariff design, planning assumptions, and cost allocation framework. Fundamentally GRID-C is one of the major foundational changes that the CPP provides. SPP's specific GRID-C design depends upon regional planning assumptions, Highway/Byway cost allocation, Schedule 11 rate structures, and stakeholder agreements.

The concept of GRID-C should be transferable to other regions.³ Most likely, this will not be easy to implement in other regions but from a design viewpoint this concept can be applied across other planning regions. The scope of regional design changes necessary for this concept to be applied will vary but this is essentially a must-have for the CPP to function at its optimum design. The cost allocation concept from the GRID-C is expected to be a major challenge.

Transferable Element 7: Planned Interconnection Locations (PILs)

PILs provide developers with predefined locations where future transmission capability is expected. This represents a major departure from today's approach where developers go back and forth with transmission planning to find locations that meet the desirable criteria. Conceptually, PILs resemble industrial site certification programs used in economic development.

While extremely promising, PILs require extensive long-term planning and confidence in future transmission expansion. Success of PILs will provide developers greater certainty regarding:

1. Available transmission capacity
2. Upgrade requirements
3. Expected Costs
4. Project timelines

The PIL process should be transferrable to other planning regions. As with other processes, the PIL implementation may require recognition of regional differences but the concept should be transferrable and provide significant value in the interconnection process. A key element of any process to develop PILs is a resource neutral design to avoid discrimination between different resource types that may have different resource potential at different locations.

³ One example of a similar methodology to the GRID-C is the MISO-SPP Joint Targeted Interconnection Queue Study or "JTIQ." This process included a base charge/MW for all interconnection customers that were deemed to be electrically proximate to the seam reinforced by the JTIQ projects.

Transferable Concepts Requiring Significant Regional Redesign

Each ISO/RTO region in the United States operates under FERC jurisdiction (excluding ERCOT) whose policies allows for regional differences. Certain aspects of the CPP may be deemed as unique to SPP or designed to accommodate SPP's overall business processes, but still transferable to other regions. Three areas have been identified as transferable requiring significant regional redesign for all or most of the other ISO/RTO's. The transmission cost allocation is highlighted as a potential area of concern in transferability of the CPP process.

Transferable Concepts Requiring Regional Redesign:

1. Highway/Byway Cost Allocation
2. Incremental Long-Term Congestion Rights (ILTCRs)
3. Resource Adequacy⁴

Transferable with Regional Redesign 1: Highway/Byway Cost Allocation

Although its underlying philosophy of allocating costs according to regional benefit is broadly applicable, the specific methodology is unlikely to transfer directly. SPP's Highway/Byway has evolved over many years and reflects the characteristics of its transmission network. SPP's cost allocation approach allows it to bring together the generation interconnection and planning process. Aspects such as the GRID-C will impact transmission cost allocation and network transmission rates. This is expected to be a major challenge in many if not all regions and potentially the largest obstacle.

Transferable with Regional Redesign 2: Incremental Long-Term Congestion Rights (ILTCRs)

The SPP RSC has responsibility for the financial transmission rights and the ILTCR process in SPP. ILTCRs compensate interconnection customers that fund transmission upgrades and or pay for transmission service. While other regions are required by FERC to have some type of congestion rights, each region has implemented different approaches due to the transmission financial investments. Adopting the CPP process may cause concerns over congestion rights in other ISO/RTO regions and should be looked at on a region-by-region basis to identify potential concerns.

Transferable with Regional Redesign 3: Resource Adequacy

The SPP RTO region has no states with retail choice. The SPP RSC identifies the resource planning margin required for load responsible entities. While each region has a planning margin requirement, the differences from SPP would impact the implementation of the CPP type process. For example, SPP does not have a centralized capacity auction type of structure that many of the other regions implement. Regions may have RA concerns on the transition to the CPP as it will impact load and generation development in each region. SPP has implemented high impact large load processes to actively manage future load growth. Other regions may need to implement similar processes to effectively manage impacts to RA. Implementation of a CPP process would be expected to impact future development and potentially impact regional resource adequacy requirements.

⁴ Notably, none of the states in SPP have a retail choice. This arrangement places the responsibility for resource adequacy on the utilities and regulators at the state level, which are then combined at the regional level. Regions with retail choice will need to examine how to allow for competition among suppliers, while still ensuring adequate resources are made available at the regional level.

SPP-Specific Elements of the CPP

Each ISO/RTO region in the United States operates under FERC jurisdiction (excluding ERCOT) whose policies allow for regional differences. Certain aspects of the CPP may be deemed as unique to SPP or designed to accommodate SPP's overall business processes, and not transferrable to other regions. The SPP governance is identified as the primary aspect which would not be transferable to other regions and is discussed below.

SPP-Specific Element: Governance: Regional State Committee (RSC)/SPP

SPP benefits from one of the strongest multi-state commission regional governances (state commission involvement and defined responsibilities) structures in the country. The Regional State Committee provides a mechanism for states regulatory representatives to participate collectively in planning and cost allocation decisions. Each state in the SPP RTO footprint has the opportunity to have representation on the RSC. SPP has specifically delegated responsibilities to the RSC such as regional cost allocation, resource adequacy, and financial transmission rights.

SPP also has a governance process that is stakeholder driven in nature. The CPP has taken several years to get approved and required a significant investment in organizational time. Other ISO/RTO's have varied governance processes from SPP's. Some of these that are more top down may allow for the CPP type process to be approved rather quickly. Each region would need to have the driving force of change identified and be committed to making the transition happen in a short time frame. It is expected that this change would garner significant stakeholder engagement in each region as the CPP provides a dramatic change to the planning and expansion process.

Further Reading

Further details on the CPP and its implementation can be found on the Southwest Power Pool's website: <https://www.spp.org/engineering/consolidated-planning-process/>