



Planning for NITS Loads & Resources Workshop Series

July 10, 2024



Strategic Plan Goals



Invest in people



Enhance the value of products and services



Sustain financial strength



Mature asset management



Preserve safe, reliable system operations



Modernize business systems and processes

TOGETHER WE ENERGIZE THE PACIFIC NORTHWEST

Transmission Value Proposition

Operating a Safe,
Secure, and High
Performing Grid

Enabling
Economic Growth
in the Region

Supporting a Clean
Energy Future and
Evolving Grid

Through Safety and Excellence

Long-Term Sustainability

Empower people and value culture
Integrated and efficient processes
Innovation and continuous improvement

Infrastructure

Implement operational improvements
Value and risk-based asset management
Advance investments and strengthen resilience

Products and Services

Support market evolution
Drive regional planning
Modernize products and services

**A Dependable and Responsive Partner,
Fostering a Safe and Positive Culture**

Agenda

- Strategic Plan & TBM
- Problem Statements
- Draft Decision Criteria
- BPA Obligations
- Initial Industry Scan
- Proposed Next Steps

Updates

- BPA has received and reviewed Customer comments. A portion of Customer comments will be addressed today but BPA recommends Customers elect to hold a Customer-led meeting to provide a forum for that discussion.
- Based on Customer comments BPA is extending the timeline of the NITS Load & Resource Planning Workshop Series.



Problem Statements

Erin Jensen & Lauren Nichols-Kinas



Problem Context

- It's not sustainable for BPA to continue treating significant load growth and organic load growth forecasts in the same manner.
- Portions of BPA's TX system are constrained and can't provide additional long-term firm service for significant load growth prior to transmission expansion.
- Constrained transmission may result in extended evaluation periods for firm transmission, delaying customer certainty about ability to serve load growth.
- Customers have difficulty responding to interested parties because of inability to determine whether transmission is available or when it could be made available to serve a load forecast (e.g. data center, new/large project).

Problem Statement

- Should BPA differentiate between load growth scenarios in order to plan for local capacity and transmission capability? Considerations may include:
 - Size (trended, new/large project, ...)
 - Timing
 - Risk profile (e.g. type of load, customer forecast certainty)
 - Impacted transmission paths (constraints based on load & resource location)
- This criteria would inform BPA's determination of:
 - What can be accommodated for long-term firm service on the existing system, including sufficient local capacity
 - Under what scenarios would load growth be planned for solely through reliability studies that may result in a system reinforcement
 - Under what scenarios would a customer be required to participate in TSEP, potentially resulting in a transmission plan of service to enable long-term firm service
 - Whether BPA could potentially utilize interim measures to enable service for load growth

Draft Desired End State

- Customer interactions with BPA are efficient and effective
- Customer responsibilities are clearly defined
- Clear business model for NITS transmission planning
- Recommended alternative(s) are feasible with existing or planned staff
- BPA will work with Customers to institute clear, transparent NITS-related business practices that define the roles and responsibilities for BPA and its Customers



Draft Decision Criteria

Erin Jensen



Draft Decision Criteria

- **Pro Forma OATT:** Align with pro forma OATT to the extent possible.
- **Compliance:** Compliance with BPA's statutory and legal obligations, authorities, and responsibilities supporting consistency/equity, non-discriminatory, and open-access principles.
- **Reliability:** Preserve safe, reliable system operations – new or increased loads must be planned for prior to coming online.
- **Customer Experience:** Enhance transmission customer experience through transparent, efficient, and clear business practices.



BPA Obligations

Jim Bennett & Emma Schulte



NITS Customer Foundations

- BPA endeavors to construct and place into service sufficient transfer capability to deliver NITS resources to NITS load.*
- BPA seeks to be responsive to customer needs and plan for forecasted load growth.

*see *BPA's Open Access Transmission Tariff § 28.2.*








Initial Industry Scan

Erin Jensen



Summary of Initial Industry Scan

- Not a one-to-one comparison to BPA, but it identifies thresholds
- Transmission providers use thresholds to support business requirements in a wide variety of ways
- There is no standard between transmission providers
- This benchmarking does not reflect a conclusion that BPA will use a MW threshold to define load forecast treatment

THRESHOLD REQUIREMENTS FOR LOAD		MW Threshold			
		1	5	10	20+
FERC	<p>FERC adopted NAESB standards define Network Load modifications into three categories as defined in WEQ 001:</p> <ul style="list-style-type: none"> • Add load in addition to an Eligible Customer or Transmission Customer’s existing Network Load(s), exclusive of projected load growth, • A load addition that is separate from an Eligible Customer or Transmission Customer’s existing Network Load(s), or • Forecast changes. 				
Northwestern Energy	<p>The Network Customer shall provide the Transmission Provider with timely written notice of material changes provided in its Application relating to the Network Customer's Network Load, Network Resources, its transmission system or other aspects of its facilities or operations affecting the Transmission Provider's ability to provide reliable service.</p> <p>Load growth must be based upon reasonably forecasted loads in the customer's current planning horizon and must be supported by a reasonable plan for Network Resources to meet that load growth. Incremental additions of load greater than 1 MW, require the customer to apply to add this new load.</p>				
PAC	<p>New or increase to existing Network Loads require a separate Completed Application. This includes:</p> <ul style="list-style-type: none"> • Increases in load, not already accounted for in the L&R, to the transmission system (>40 kV) at one site of 1 MW or greater. • Reductions in load, not already accounted for in the L&R, at one site on the transmission system of 5 MW or greater 				
IPCO	<p>Load increases less than the MW amounts listed for material changes below, and that do not result in a new meter or new POD/Sink combination, are considered organic growth and do not require timely written notice or a new application</p> <ul style="list-style-type: none"> • Increases in load, not already accounted for in the annual submission of Network Loads and Network Resources, to the transmission system (>40 kV) at one site greater than 5 MW. • Reduction in load, not already accounted for in the annual submission of Network Loads and Network Resources, at one POD or site on the transmission system of 5 MW or greater, or that results in a new meter. 				

THRESHOLD REQUIREMENTS FOR LOAD		MW Threshold			
		1	5	10	20+
<p style="text-align: center;">NY ISO is proposing the following to define Large Load Facilities:</p> <p>NY ISO</p> <ul style="list-style-type: none"> • Greater than 10 MW connecting at a voltage level of 115 kV or above, or • 40 MW or more connecting at a voltage level below 115kV within a Large Transmission District, or • 20 MW or more connecting at a voltage level below 115kV within a Small Transmission District <p style="text-align: center;">Large TX District = TX District with a Weather Normalized Peak >=4000MW Small TX District = TX District with a Weather Normalized Pak <4000MW</p>			▲	▲	
<p style="text-align: center;">TVA considers the following types of changes to existing generation, transmission, or electricity end-user Facilities to be a “qualified change”</p> <p>TVA</p> <ul style="list-style-type: none"> • Change of Peak Demand of at least 5 MW resulting from new or transferred Load (including motors and any loads that may impact power quality) at a single delivery point • Change of any contracted Demand value of at least 5 MW for TVA direct served customers with Firm Demand contracts • Change in customer’s Reactive Power device capability of at least 5 MVAR including capacitor banks, reactor banks, SVCs, statcoms, etc. 		▲			
<p style="text-align: center;">Proposed rate structure would require new data centers with loads greater than 25 megawatts (MW) and cryptocurrency mining operations/mobile data centers with loads greater than 1 MW to agree to meet certain requirements before facilities are constructed to serve them.</p> <p>AEP</p> <p style="text-align: center;">Under the proposal, data centers would be required to make a 10-year commitment to pay for a minimum of 90% of the energy they say they need each month – even if they use less.</p>	▲			▲	
<p style="text-align: center;">Duke is pursuing electricity supply contract terms with data centers that include take-or-pay and up-front infrastructure build out payments to guard against volatility in the energy-intensive computing industry.</p> <p>Duke</p> <p style="text-align: center;">These contracts include a "minimum take" clauses that require the centers to pay for a certain amount of power regardless of how much it uses.</p>					

Proposed Next Steps

- BPA received many Customer comments requesting that this NITS workshop series lengthen its timeline to allow for better Customer engagement.
- BPA recognizes that there are many efforts around the agency which need Customer engagement and the NITS team is working to modify the workshop series timeline to allow for better customer engagement.

Upcoming Workshops

- Upcoming Workshops
 - TBD
 - Look for a Tech Forum which outlines the upcoming timeline
- Customer-Led Workshops
 - Customers should provide the topic and estimated time needed for discussion with BPASMEs
 - Agenda & materials for Customer-led workshop should be sent one week in advance
 - BPA will not create new content – this is an opportunity to ask further questions on materials previously presented
 - These meetings will be opportunities for Customers to present on topics of interest, where BPA will be in listening mode
- Comments and requests for Customer-Led workshops can be submitted at:
 - techforum@bpa.gov
 - Subject line: NITS Workshop
 - Please cc your Transmission Account Executive
 - **Comments due by Thursday, July 25, 2024**

Customer Comments

- At this stage of the workshop series BPA does not plan to formally respond to comments in writing but will acknowledge receipt and consider comments.
- Questions that are received can be addressed in subsequent workshops including the Customer-Led workshops.