#### **BPA Attachment K 2026 Planning Process**

Planning Meeting I

October 7, 2025

1:00 - 3:00 PM



## Agenda

- Introductions
- Background
- BPA's Attachment K Planning Cycle 2026
- BPA's Attachment K Website 2026
- Economic Study Requests
- 2026 Planning Assumptions, Methodology, and Criteria
- 2024 BPA Transmission Plan
- Next Steps
- Questions



## Background

- The purpose of Attachment K meeting 1 is to discuss planning assumptions, methodologies and criteria for future planning studies as well as Economic Study requests, and the previous Transmission Plan.
- Historically, Attachment K meetings did not match the annual system assessment cycle.
- BPA is making changes to better align Attachment K meeting timing with the annual system assessment timeline.



#### 2026 Transition Year

- The 2026 System Assessment started in June 2025.
- The 2026 Attachment K Meeting 1 needs to occur near the beginning of the cycle.
- Future Attachment K Meeting 1 will occur May/June timeframe.



## New Meeting Alignment

- Annual System Assessment (SA) begins in June and is completed the following year.
- Meeting 1:
  - Held at the SA start
  - Discuss assumptions, methods, criteria
- Meeting 2:
  - Held at following year end
  - Review draft plans and costs
  - Discuss BPA Ten Year Plan



# Going Forward for Attachment K Meetings

- Meetings will align with the System Assessment cycle every year.
- Better timing = stakeholder input included at the right stage of the cycle.
- Clearer process for assumptions, planning, service/cost review and budgeting.



# 2026 System Assessment Cycle (Transition)

System
Assessment
Start

June 2025

Attachment K Meeting 1

10/7/25

System
Assessment
Completed

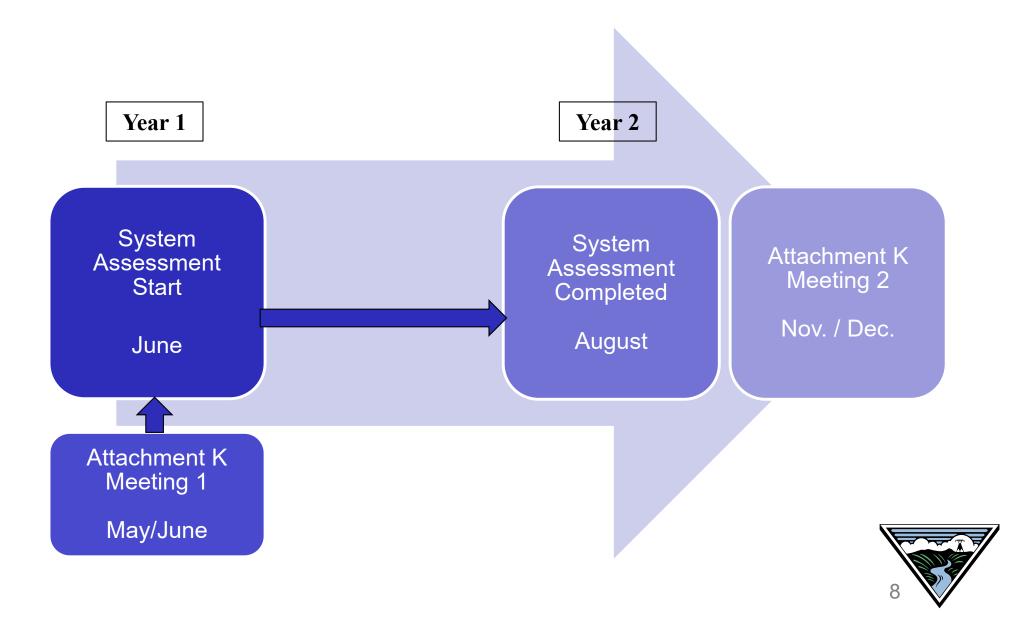
August 2026

Attachment K Meeting 2

Nov. / Dec. 2026



## Future System Assessment Cycle



#### Attachment K Planning Cycle 2025

Customer Meeting I

April 25, 2025

- 2025 Planning Assumptions, Methodology, Criteria
- Economic Study Requests
- 2024 BPA Transmission Plan
- Posting I

#### **Summer 2025**

- 2025 System Assessment Summary Report which includes Results and Conceptual Solutions
- Customer Meeting II

December 2025

- Draft Plans of Service and Cost
- Preliminary Economic Study Results
- Posting II

End of Year 2025

2025 BPA Transmission Plan



#### Attachment K Planning Cycle 2026

Customer Meeting I

- **October 7, 2025**
- 2026 Planning Assumptions, Methodology, Criteria
- Economic Study Requests
- 2024 BPA Transmission Plan
- Posting I

Summer 2026

- 2026 System Assessment Summary Report which includes Results and Conceptual Solutions
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- Draft Plans of Service and Cost
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End of Year 2026

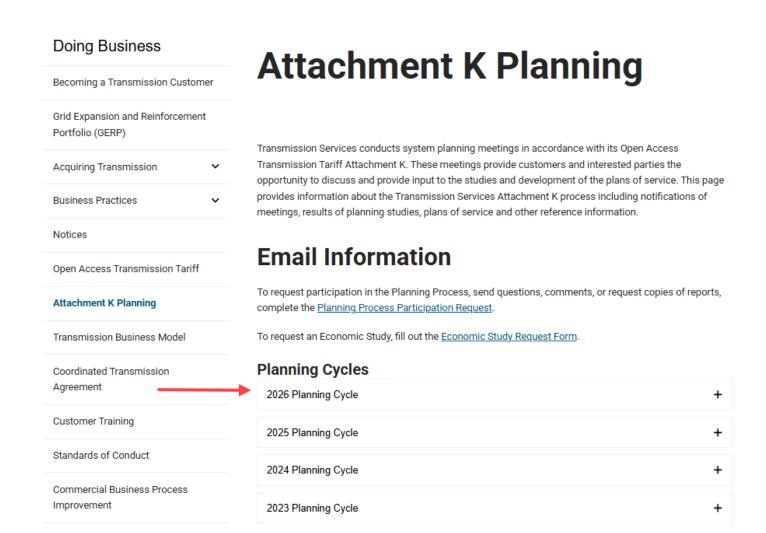
2026 BPA Transmission Plan



#### BPA's Attachment K Planning Process Website

https://www.bpa.gov/energy-and-services/transmission/attachment-k







#### BPA's 2026 Attachment K Planning Process Website

#### 2026 Planning Cycle

Transmission Services conducts system planning meetings in accordance with its Open Access Transmission Tariff Attachment K. These meetings provide customers and interested parties the opportunity to discuss and provide input to the studies and development of the plans of service.

This page provides information about the Transmission Services Attachment K process including notifications of meetings, results of planning studies, plans of service and other reference information. To request participation in the Planning Process, complete and email the Participation Request form.

#### Meetings

October 7, 2025 Agenda

#### **Reference Information**

2026 System Assessment Assumptions and Methodology

## **Economic Study Requests**

- What is an Economic Study?
  - Studies may be requested to address congestion issues or the integration of new resources and loads.
- How are Requests for Economic Studies submitted?
  - PlanningEconomicStudyRequest@bpa.gov
- Requests may be submitted any time...
  - Requests submitted after October 31 will be considered in the next prioritization process.
- BPA will complete up to two Economic Studies per year at its expense.
- There were no Economic Study Requests received during the annual cycle ending on 10/31/2025.

# Planning Assumptions & Methodology

- System Reliability Assessments may be based on current or qualified past studies as allowed by the NERC TPL Reliability Standard
  - The 2026 System Assessment will be based largely on qualified past studies from the 2025 System Assessment.
  - In order to determine if the previous study results are still valid, a number of factors are considered as part of the validation process.
  - Past studies are still valid if there have been no significant changes in topology, load forecast, new or retired generation or loads interconnected, known (planned) outages, or spare equipment strategy since the previous studies were performed.

# Planning Assumptions

#### **Base Cases**

 The base cases for the 2026 System Assessment originated from WECC approved base cases for the Near Term and Long Term Planning horizons and represent both peak and off-peak load conditions. Load forecasts and topology were modified to represent the following years and seasons:

Year	Case	Season	Load Level	Notes
2027	27LSP	Spring	Off-Peak	Near term (1-year expected spring loads
2027	27HW	Winter	Peak	Near term (1-year) expected winter peak
2027	27HS	Summer	Peak	Near term (1-year) expected summer peak
2031	31HW	Winter	Peak	Near term (5 year) expected winter peak
2031	31HS	Summer	Peak	Near term (5 year) expected summer peak
2035	35HW	Winter	Peak	Long-term (6-10 year) expected winter peak
2035	35HS	Summer	Peak	Long term (6-10 year) expected summer peak

# Planning Assumptions (Continued)

#### **Base Cases**

- Loads in the Northwest Area
  - Peak load forecasts for both winter and summer seasons.
    - Forecasts are provided by Customers for the IOUs and larger utilities (represents approximately 75-80% of loads)
    - Forecasts are developed by BPA's Agency Load Forecasting group if not supplied by customers (represents approximately 20-25% of loads)

#### Resources

- Model existing generating resources and selected future resources proposed to be online if needed, to meet the forecast loads within the 10-year horizon.
- Update Northwest Area database
  - Update with the latest seasonal peak and off-peak load forecasts
  - Update with the latest network topology
  - Model future resources as needed, network expansion projects, and known commitments for firm transmission service



# Planning Assumptions (continued)

#### Sensitivity Cases

- Other patterns and conditions may be developed as sensitivities based on:
  - Load level or load forecast
  - Expected transfers
  - Expected in-service dates of new or modified Transmission Facilities
  - Reactive resource capability
  - Generation additions, retirements, or other dispatch scenarios
  - Or other system conditions unique to certain geographical areas

# Planning Methodology

- Validation Methodology for Qualified past Studies:
  - The 2026 System Assessment will mostly rely on qualified past studies from the 2025 System Assessments as allowed by NERC TPL-001-5.1.
  - Modify base cases to stress the study area and benchmark with historical data.
  - Compare network topology and load forecast / load growth assumptions for each area of interest.
  - Check if significant new generation or loads have been interconnected or if significant generation or loads have been retired since the previous System Assessment.
  - Check if there are significant known transmission or generation (planned) outages that have been scheduled in the Planning Horizon since the previous System Assessment.
  - Check if there are significant changes to spare equipment strategy.

## Planning Methodology (continued)

- System Assessment Methodology:
  - Modify base cases to stress the study area and benchmark with historical data.
  - Check network topology and load forecast / load growth assumptions for each area of interest.
  - Develop sensitivity cases as needed for worst case generation or transfer patterns.
  - Perform steady state power flow simulation of all single contingencies and select multiple contingencies if needed.
  - Study a large selection of single and multiple contingencies to evaluate voltage stability and transient stability performance if needed.
  - Model RAS as required.



## Planning Methodology (continued)

- Identify Potential Problems
  - Compare system performance with NERC and WECC Reliability Standards to determine if there are potential system performance deficiencies.
  - Identify deficient areas for follow up and possible corrective action plans.
  - Problems may include:
    - Steady State Thermal overloads or Under/Over Voltages
    - Stability
      - Insufficient reactive margin (voltage stability)
      - Large voltage deviation (transient stability)
- Develop Conceptual Solutions
  - Solutions to mitigate potential system performance deficiencies may include transmission expansion projects, facility upgrades, and/or non-wires solutions (e.g. energy efficiency, distributed generation, redispatch, or demand side management).

# Planning Methodology (continued)

- Cost Estimates for the Conceptual Solutions
  - Preliminary cost estimates are developed for the conceptual solutions
  - Preliminary estimates are one of the criteria for comparing alternative conceptual solutions.
- Develop a Plan of Service for the Preferred Alternative
  - Draft Project Requirements Diagram (PRD) and circulate for comments
  - Submit Project Initiation Document (PID)
  - Develop the Business Case and request initial capital funding
  - Perform scoping to refine plan, schedule, and cost
  - Finalize the plan of service and PRD
  - Finalize Record of Decision, design, and construction



## Planning Criteria

- Standards and Criteria used for Planning:
  - NERC Standards, WECC and BPA Reliability Planning Criteria
    - NERC (North American Electric Reliability Corporation) TPL-001-5.1 Standard
    - WECC (Western Electricity Coordinating Council) TPL-001-WECC-CRT-4 Regional Reliability Criteria
    - BPA Reliability Criteria
- Transmission Needs for Public Policy Mandates:
  - Are there any transmission needs driven by Public Policy Mandates for consideration in the Planning Process?

#### 2024 BPA Transmission Plan

- Can be found on the <u>2024 Planning Cycle page</u> under Reference Information
- BPA's Plans for Capital Expansion Projects
- Spans the 10-year planning horizon from 2024-2034
- Projects categorized by
  - Load Service Areas
  - Paths and Interties
  - Generator Interconnections
  - Line and Load Interconnections
- The following information is provided for each Project:
  - Project Description
  - Purpose
  - High-level Cost Estimate
  - Proposed Energization Date
- The BPA 2025 Transmission Plan will be published end of 2025



## **Next Steps**

- 2025 Attachment K cycle Customer Meeting II Fall 2025
  - Review Results of 2025 System Assessment including draft plans of service
- 2026 Attachment K cycle Posting I Summer 2026
  - 2026 System Assessment Summary Report which includes Results and Conceptual Solutions
- 2026 Attachment K cycle Customer Meeting II Fall 2026
  - Review Results of 2026 System Assessment including draft plans of service
- Sign up to participate in future meetings or receive additional information by:
  - Filling out the Participation Request form on BPA's Planning Process website
     <u>Attachment K Planning Bonneville Power Administration</u> and sending it via e-mail
     to: <u>PlanningParticipationRequest@bpa.gov</u>

### Questions?

