NITS Access to Transmission Capacity

May 20, 2025

Agenda

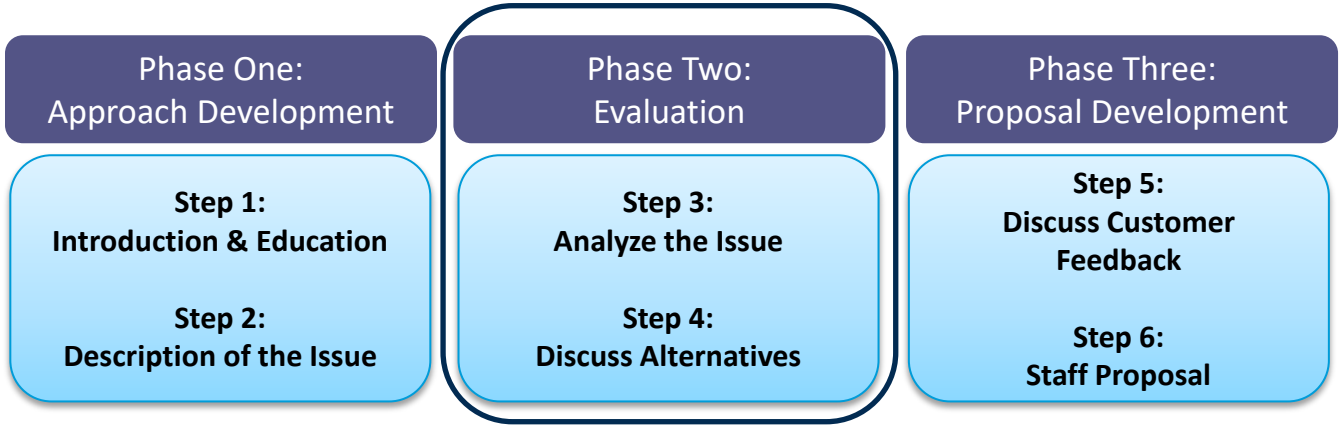
- Introductions
- Revised NITS Workshop Timeline
- Problem Statement & Context
- NITS Planning Threshold Alternatives

Ex Parte Message

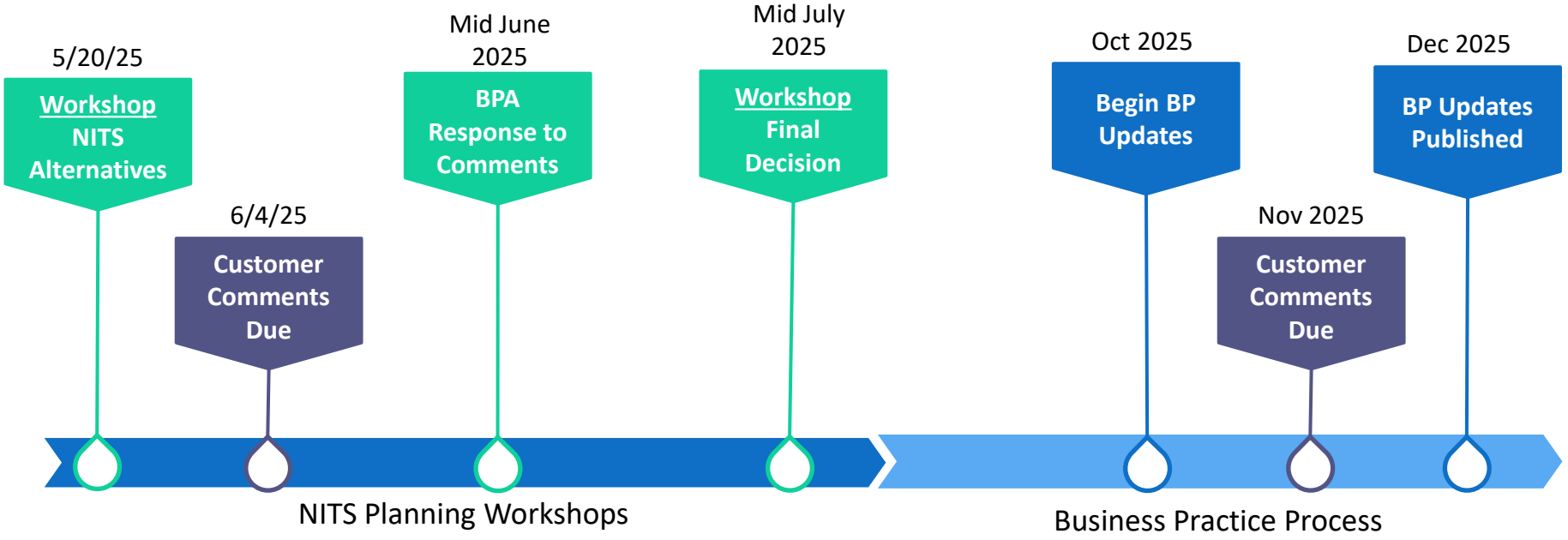
- We want to make sure that everyone participating today is aware that the BP-26 public rate design methodology proceedings are underway and that the procedural rules for the proceedings prohibit “ex parte” communications with BPA about the merits of the issues in those proceedings. That means that BPA will not be talking about issues in BP-26 or PRDM today and cannot listen to comments about the issues. Please direct any comments on issues in BP-26 or PRDM to the proceedings themselves.
- Ex Parte for BP-26 is expected to last through July 2025.

Approach to Customer Engagement

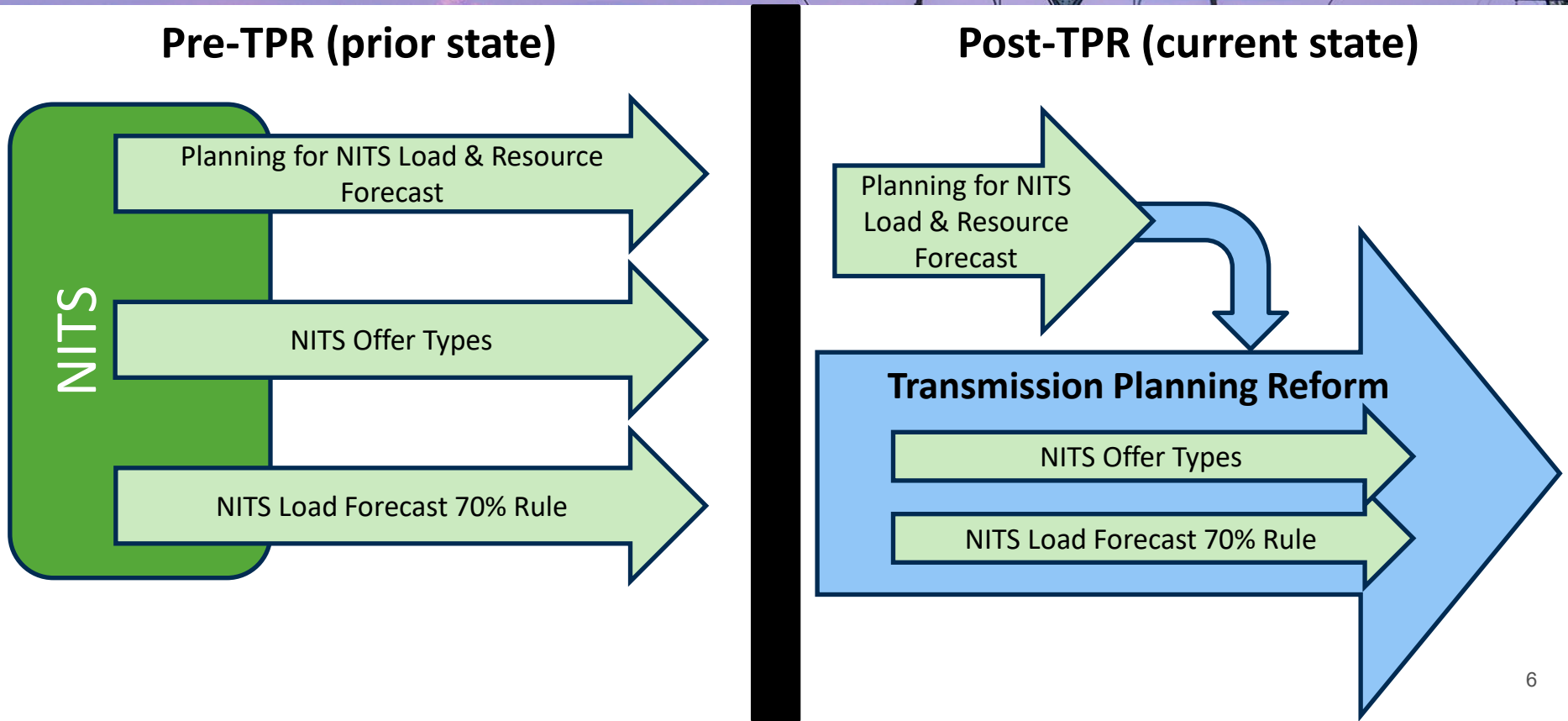
- Most identified issues will be presented according to the following process at workshops. Multiple steps might be addressed in a single workshop or more based on the complexity of the issue.



Revised NITS Workshop Timeline



Transmission Planning Initiatives



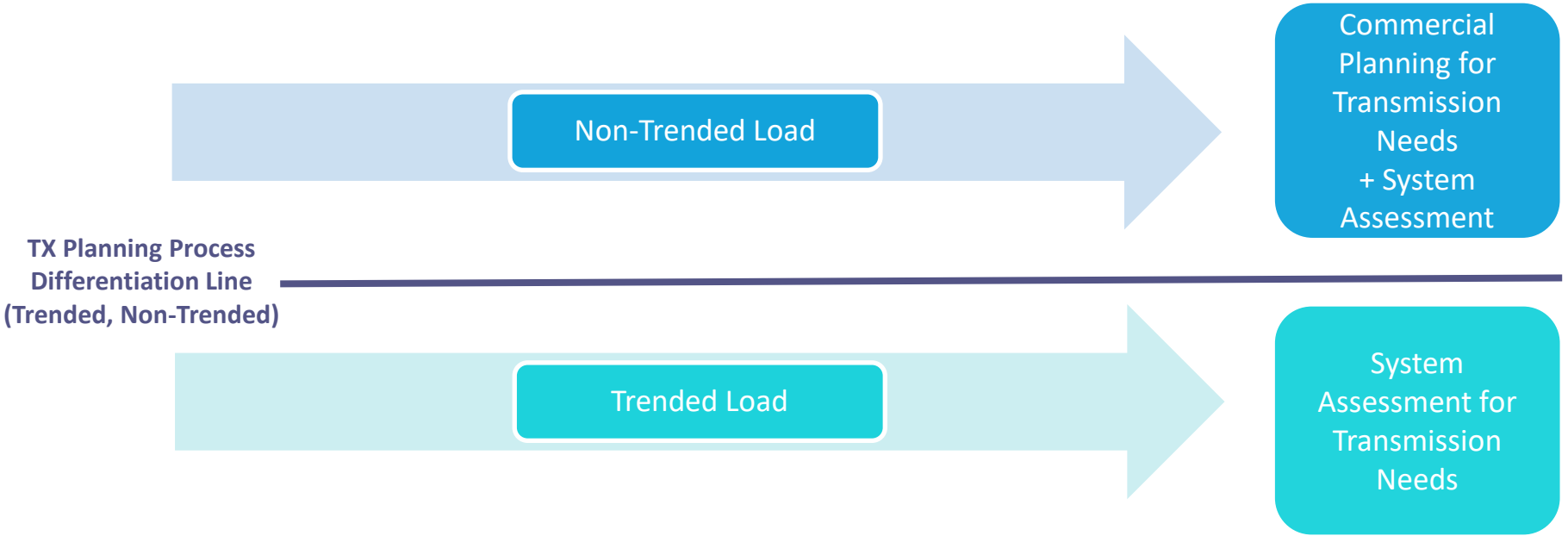
Problem Context

- BPA is not able to continue planning for all instances of load growth 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 without transmission expansion.
- Due to the unknowns around transmission availability and timing of future availability, customers are struggling to guarantee firm delivery of power in instances of new large load forecasts.

Problem Statement

- How should BPA differentiate forecast treatment based on different load growth scenarios to plan for local capacity and transmission capability?
- Considerations may include:
  - Size (trended, new/large project, …)
  - Timing (2 years notice, 6 years notice, 10 years notice, etc.)
  - Risk profile (e.g. type of load, customer forecast certainty)
  - Impacted transmission paths (constraints based on load & resource location)

Transmission Planning Threshold



NITS Planning Threshold Alternatives

- Alternative 1: New large load threshold per facility
  - Any 13MW* or more forecast increase during any year at a single facility must participate in Commercial Planning.
- Alternative 2: Annual MW threshold that varies by year
  - Any forecast increase for the total Customer peak that exceeds a fixed annual MW threshold (varies by forecast year) must participate in Commercial Planning.
- Alternative 3: Larger of percentage or MW threshold
  - A forecast that exceeds the greater of a fixed annual MW threshold (5MW*) or a fixed percentage annual MW threshold (1.5%*) based on the total Customer peak must participate in Commercial Planning.

**Proposed numbers, pre-decisional*

Common Attributes of Alternatives

- A baseline forecast is developed annually from the previously accepted peak LaRC forecast.
- All alternatives are resource neutral (FCRPS, non-federal).
- The processing of an LLIR is independent of an evaluation for firm transmission.
- All upgrades identified as part of an LLIR, or those identified in a System Assessment, are generally required to reliably serve the forecasted load(s).
- Calculated values used in upcoming examples are rounded.

Alt 1: Annual New Large Load Threshold per Facility

Concept: Any 13MW* or more forecast increase during any year at a single facility must participate in Commercial Planning.

- The threshold is all known or potential NLSL load increases applied to each facility.
  - Transmission is based on peak MW which must be converted from the 10aMW NLSL limit utilizing an industry-appropriate load factor.
    - An 80% load factor results in 12.5MW (≈13MW) peak.
  - BPAT will make the determination for transmission planning purposes only.
- Forecast increases greater than the threshold get a queue time, and the transmission needs are planned for outside of the System Assessment study.
  - Applies to the portion of the transmission need above the threshold.
- An unreserved transmission penalty will likely be required to incentivize accurate forecasts of these loads.

Load Forecast Increase	Load Under Threshold	Load Above Threshold
Threshold	Non-NNL Load growth	Any NNL Facility
TX Planned for in	System Assessment	Commercial Assessment
Queue Time	n/a	Receipt of forecast
LTF Service Awarded	Upon DNR	TBD in TPR Effort

**Proposed numbers, pre-decisional*

BONNEVILLE POWER ADMINISTRATION

Alternative 1

Annual New Large Load Threshold per Facility

Example: Trended Load Growth with a new large load

Load Forecast

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11
2024 Peak	31	32	34	35	37	39	41	42	43	44	n/a
2025 Peak	n/a	33	35	36	38	41	42	43	44	45	49
NLL-1		0	0	0	0	0	0	0	0	0	15
Change	n/a	Δ 1	Δ 1	Δ 1	Δ 1	Δ 2	Δ 1	Δ 1	Δ 1	Δ 1	Δ 20
Threshold		13	13	13	13	13	13	13	13	13	13
Result		OK	OK	OK	OK	OK	OK	OK	OK	OK	15

Results:

System Assessment

- *Transmission for total LaRC forecast increase will be evaluated in system assessment. A CAP may be identified.*

Interconnection

- *If needed a Line Load Interconnection (LLI) plan of service is identified.*

Commercial Planning

- *Scenario Outcome - Load forecast increase for NNL (15MW) will receive a queue time and be included in Commercial Planning.*

BONNEVILLE POWER ADMINISTRATION

Alternative 1

Annual New Large Load Threshold per Facility

Example: Trended Load Growth with multiple new large loads

Load Forecast

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11
2024 Peak	31	32	44	45	47	59	61	62	63	64	n/a
2025 Peak	n/a	33	45	46	48	61	62	63	64	65	66
NLL-1		0	0	0	0	0	0	0	0	0	15
NLL-2							20	20	20	20	30
Change	n/a	Δ 1	Δ 1	Δ 1	Δ 1	Δ 2	Δ 21	Δ 21	Δ 21	Δ 21	Δ 47
Threshold		13	13	13	13	13	13	13	13	13	13
13MW		OK	OK	OK	OK	OK	20	20	20	20	45

Results:

System Assessment

- *Transmission for total LaRC forecast increase will be evaluated in system assessment. A CAP may be identified.*

Interconnection

- *If needed a Line Load Interconnection (LLI) plan of service is identified.*

Commercial Planning

- *Scenario Outcome - Load forecast increase for NNL (45MW) will receive a queue time and be in Commercial Planning.*

Alt 2: Annual MW Threshold that Varies by Year

Concept: A forecast increase that exceeds a fixed annual MW threshold for the forecast year must participate in Commercial Planning.

- Forecast increases for the forecast period exceeding the threshold get a queue time and participate in Commercial Planning.
  - Years 1-2 combined: less than or equal to 5MWs*
  - Years 3-5 combined: less than or equal to 7MWs*
  - Years 6-10 combined: less than or equal to 10MWs*
  - Applies to the portion of the forecast above the threshold.
- Forecast increases greater than the threshold get a queue time, and the transmission needs are planned for outside of the System Assessment study.
  - Applies to the portion of the transmission need above the threshold.

Load Forecast Increase	Load Under Threshold	Load Above Threshold
Threshold	Varies by year	Varies by year
TX Planned for in	System Assessment	Commercial Planning
Queue Time	n/a	Receipt of forecast
LTF Service Awarded	Upon DNR	TBD in TPR Effort

**Proposed numbers, pre-decisional*

BONNEVILLE POWER ADMINISTRATION

Alternative 2

Annual Megawatt Threshold that Varies by Year

Example: Trended Load Growth

Load Forecast											
	Yr 1	*Yr 2*	*Yr 3*	*Yr 4*	*Yr 5*	*Yr 6*	*Yr 7*	*Yr 8*	*Yr 9*	*Yr 10*	*Yr 11*
2024 Peak	**31**	**32**	**34**	**35**	**37**	**39**	**41**	**42**	**43**	**44**	**n/a**
2025 Peak	**n/a**	**33**	**35**	**36**	**38**	**41**	**42**	**43**	**44**	**45**	**49**
Change	**n/a**	**Δ 1**	**Δ 1**	**Δ 1**	**Δ 1**	**Δ 2**	**Δ 1**	**Δ 1**	**Δ 1**	**Δ 1**	**Δ 5**
Threshold		**5**	**5**	**7**	**7**	**7**	**10**	**10**	**10**	**10**	**10**
Result		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

Results:

System Assessment

- *Transmission for total LaRC forecast increase will be evaluated in system assessment. A CAP may be identified.*

Interconnection

- *If needed a Line Load Interconnection (LLI) plan of service is identified.*

Commercial Planning

- *Scenario Outcome - Commercial Planning is not necessary because growth is below 10MW threshold.*

BONNEVILLE POWER ADMINISTRATION

Alternative 2

Annual Megawatt Threshold that Varies by Year

Example: New Significant Growth

New project/load to be served at a new POD.

Load Forecast

	Yr 1	*Yr 2*	*Yr 3*	*Yr 4*	*Yr 5*	*Yr 6*	*Yr 7*	*Yr 8*	*Yr 9*	*Yr 10*	*Yr 11*
2024 Peak	17	17	18	18	19	19	20	20	21	21	n/a
2025 Peak	n/a	17	18	18	59	59	60	60	101	101	102
Change	n/a	Δ 0	Δ 0	Δ 0	Δ 40	Δ 40	Δ 40	Δ 40	Δ 80	Δ 80	Δ 81
Threshold		5	5	7	7	7	10	10	10	10	10
Result		OK	OK	OK	33	33	30	30	70	70	71

Results:

System Assessment

- *Transmission for total LaRC forecast increase will be evaluated in system assessment. A CAP may be identified.*

Interconnection

- *A Line Load Interconnection (LLI) plan of service is identified.*

Commercial Planning

- *Scenario Outcome - Load forecast increase above threshold (71MW) will receive a queue time and be included in Commercial Planning.*

Alt 3: Larger of Percentage or MW Threshold

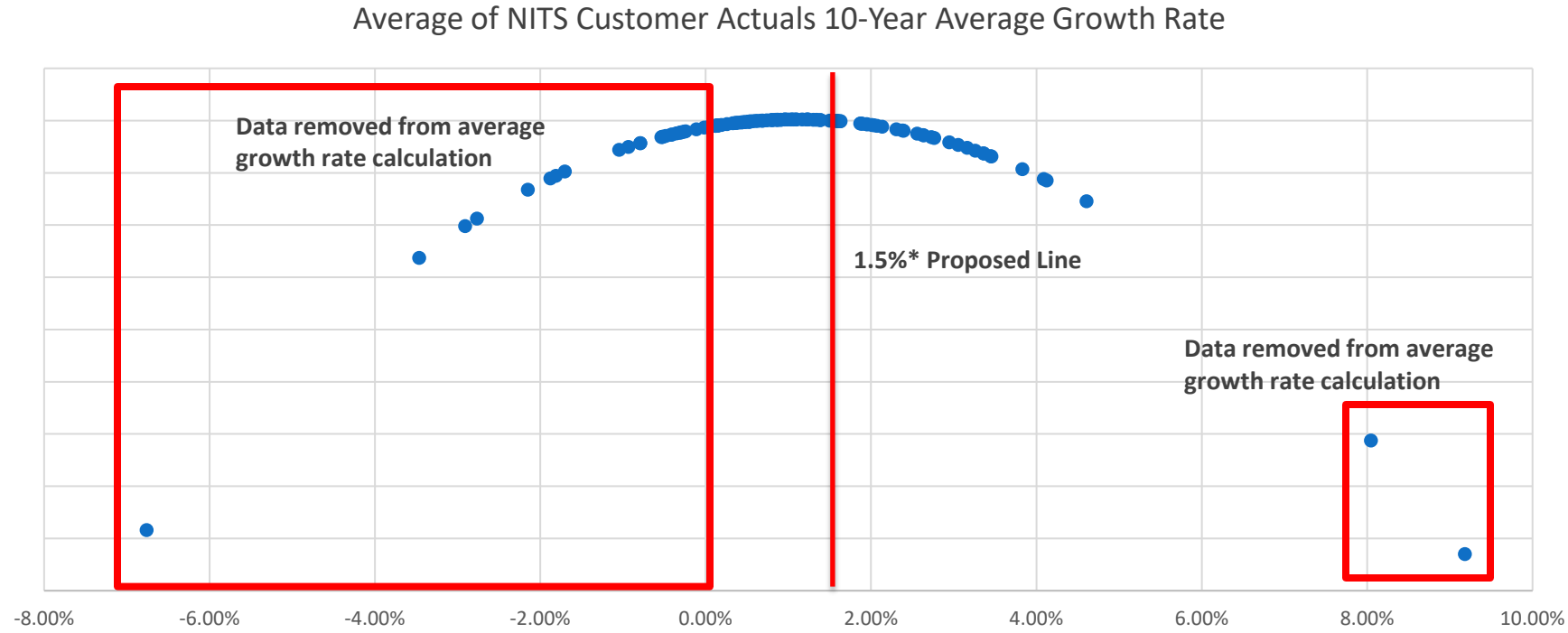
Concept: The greater of a fixed annual MW threshold (5MW*) or a fixed percentage annual MW threshold (1.5%*) must participate in Commercial Planning.

- The threshold is 1.5%* increase from the prior year forecast with a minimum of 5MW* up to a maximum of 20MW per 10-year forecast.
- Forecast increases greater than the threshold get a queue time, and the transmission needs are planned for outside of the System Assessment study.
  - Applies to the portion of the transmission need above the threshold.

Load Forecast Increase	Load Under Threshold	Load Above Threshold
Threshold	<= 1.5% or 5MW	> 1.5% or 5MW
TX Planned for in	System Assessment	Commercial Planning
Queue Time	n/a	Receipt of forecast
LTF Service Awarded	Upon Designation of a Network Resource (DNR)	TBD in TPR Effort

**Proposed numbers, pre-decisional*

Alt 3: Calculation of Proposed Threshold



**Proposed numbers, pre-decisional*

Alternative 3

Larger of 1.5% or 5MW Threshold by Year

Example: Trended Load Growth

Load Forecast

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11
2024 Peak	31	32	34	35	37	39	41	42	43	44	n/a
2025 Peak	n/a	33	35	36	38	41	42	43	44	45	49
Change	n/a	Δ 1	Δ 1	Δ 1	Δ 1	Δ 2	Δ 1	Δ 1	Δ 1	Δ 1	Δ 5
1.5% Threshold		.5	.5	.5	.6	.6	.6	.6	.7	.7	.7
5MW Min Threshold		5	5	5	5	5	5	5	5	5	5
Result		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

Results:

System Assessment

- *Transmission for total LaRC forecast increase will be evaluated in system assessment. A corrective action plan (CAP) may be identified.*

Interconnection

- *If needed, a Line Load Interconnection (LLI) plan of service is identified.*

Commercial Planning

- *Scenario Outcome - Commercial Planning is not necessary because growth is below the 5MW minimum threshold.*

BONNEVILLE POWER ADMINISTRATION

Alternative 3

Larger of 1.5% or 5MW Threshold by Year

Example: New Significant Growth

New project/load to be served at a new POD.

Load Forecast

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11
2024 Peak	17	17	18	18	19	19	20	20	21	21	n/a
2025 Peak	n/a	17	18	18	59	59	60	60	101	101	102
Change	n/a	Δ 0	Δ 0	Δ 0	Δ 40	Δ 40	Δ 40	Δ 40	Δ 80	Δ 80	Δ 81
1.5% Threshold		.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
5MW Min Threshold		5	5	5	5	5	5	5	5	5	5
Result		OK	OK	OK	35	35	35	35	75	75	76

Results:

System Assessment

- *Transmission for total LaRC forecast increase will be evaluated in system assessment. A CAP may be identified.*

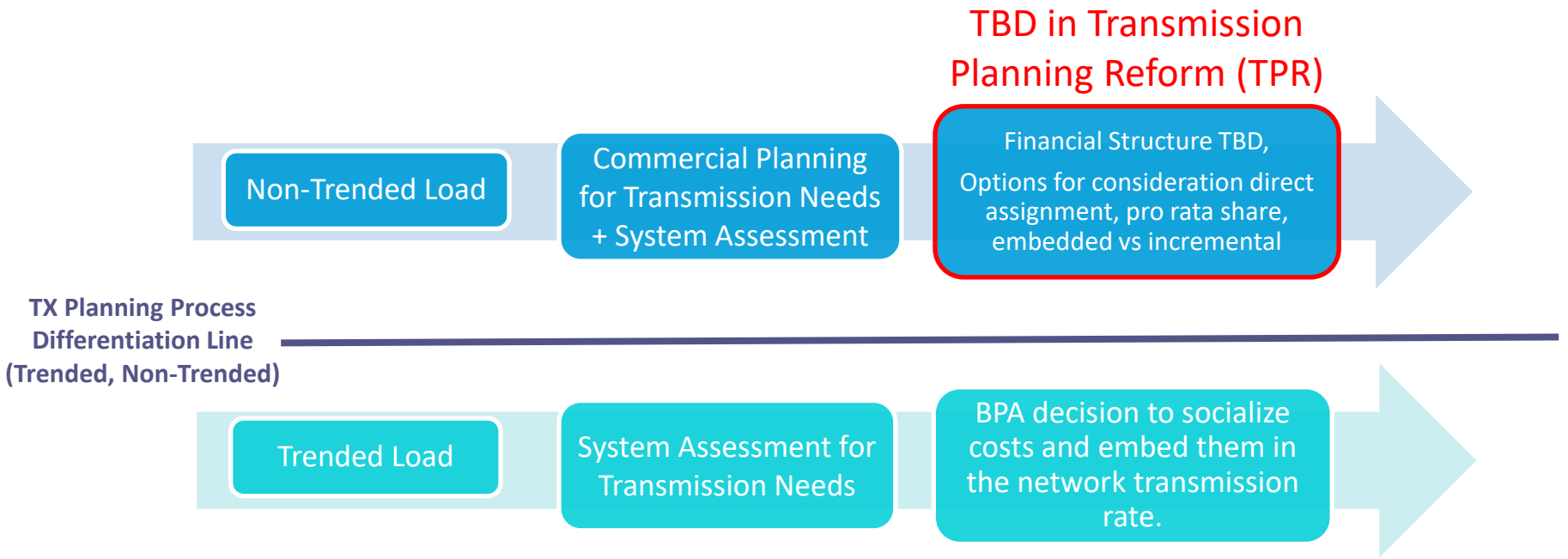
Interconnection

- *A Line Load Interconnection (LLI) plan of service is identified.*

Commercial Planning

- *Scenario Outcome - Load forecast increase above threshold (76MW) will receive a queue time and be required to participate (included- delete) in Commercial Planning.*

Potential Future State: Transmission Planning Threshold



Next Steps

- Customers are asked to submit written comments including preferred alternatives from this workshop or additional alternatives for BPA's consideration.
- Comments can be submitted at:
  - techforum@bpa.gov
  - Subject line: NITS Transmission Planning
  - Please cc your Transmission Account Executive
  - **Comments due by June 4, 2025**
    - All comments will be publicly posted
- Upcoming Workshops
  - Early July 2025 BPA final decision workshop

Appendix

Key Terms

- Commercial Planning
  - Evaluation activities with the purpose of determining whether addition contractual rights to transmission can be provided. Includes Commercial Powerflow Studies and as needed TSEP.
- Commercial Powerflow Study (CPF)
  - The study used to evaluate LT TSRs/FTSRs and determine if service can be offered on the existing system. The CPF studies the network over a broad spectrum of season scenarios in the 2 – 10-year horizon. Updates to the agency forecast for NITS customers are included, upon availability.
- Load Factor
  - The ratio of average load to the peak load during a specified period of time; expressed in percent.
- Reliability System Assessment
  - Studies performed on an annual cycle primarily to verify the system meets the TPL-001 NERC reliability standard. Evaluates regional load service as well as main grid transfer capabilities. Starts with loads populated from the Agency Load Forecast, which may be updated to reflect known or expected changes, either as a base assumption or as a sensitivity.
- TSR Study and Expansion Process (TSEP)
  - The process BPA uses to respond to eligible requests for long-term transmission service on the BPA network. The objectives are to study the impact that TSRs will have on BPA's network, provide customers with project and cost information, assist customers in moving those projects forward, and provide BPA with tools to manage requests in the queue.