TSR Study and Expansion Process (TSEP)

Customer workshop

February 8, 2016

Agenda

- Continued overview of Financial Process design
  - Capital Prioritization Process
  - Rolled-in Rate Analysis
    - Assumptions, modeling approaches
- Overview of Phases 2 and 3 – Cluster Study to Plan of Service Validation
  - Scope, timing, process details
- Next Steps and Feedback Requested

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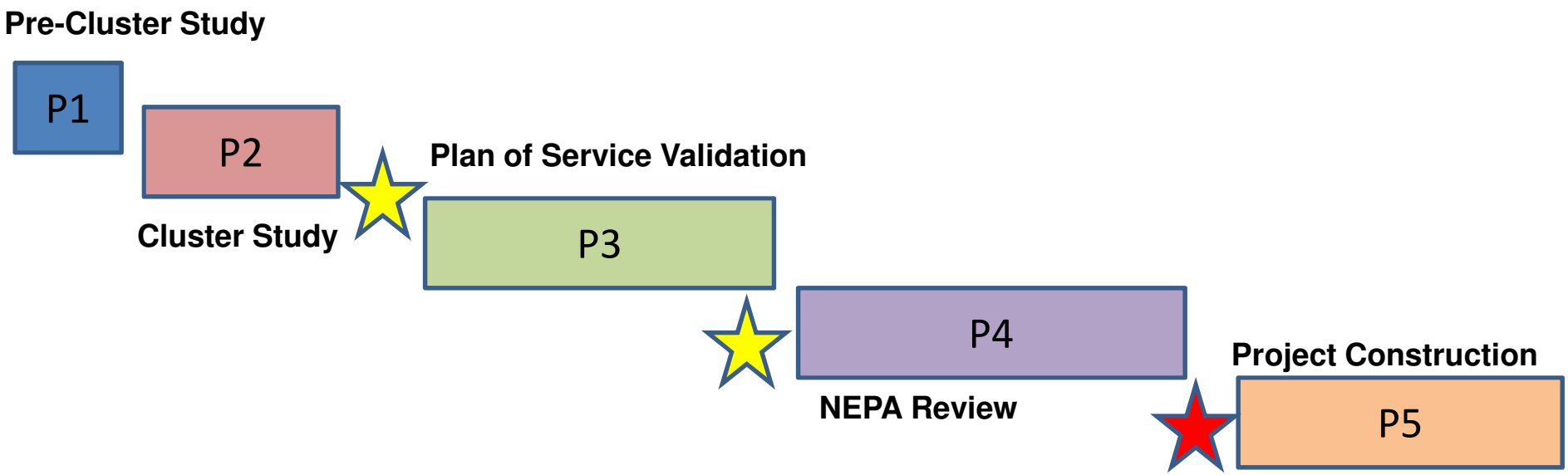
Reminder – Overview of Financial Evaluation and Updates to Participants



At each of these points customers must decide whether to continue participating in the process or withdraw TSR.

Informational Financial Guidance - Prior to the commencement of a successive phase, BPA will provide customers with updated informational analysis on rate impacts and non-binding information on whether service might be provided at rolled-in rates

Determination of whether service could be provided at rolled-in rate - Prior to the construction decision, BPA will perform formal rate analysis and determination of whether service can be provided at rolled-in rate based on best available information

Reminder from Prior Workshops

- Proposed financial evaluation process consistent with *pro forma* tariff expansion model
- Proposed modifications include:
  - Opportunity for alternative ownership structure discussions after each sharing of updated financial analysis, prior to committing to the next study phase (i.e., after P2, P3 and P4)
    - Plan to address these discussions as they come and work with regional planning entities (ColumbiaGrid, NTTG) where appropriate
  - Provide information on capital prioritization of project to give customers a better idea of when/if BPA should use its capital for the project (after P3, P4)

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BPA's Capital Prioritization Process

- Used to inform BPA investment portfolio for Capital Investment Review (CIR)
- Expansion investments > $3M are nominated, costs/benefits assessed, evaluated and rank based on Net Economic Benefit Ratio (NEBR)
- Explicitly captures uncertainty to estimate economic risk
- Three basic expansion classifications:
  - Compliance-driven
  - Policy Commitment
  - Discretionary

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BPA's Capital Prioritization Process (continued)

- Nominated investments are updated every six months
- Economic analysis does NOT replace the Rolled-In rate analysis, but rather provides additional information about relative value of investment in relation to others
- Interested parties can learn more about BPA's Capital Prioritization Process through the upcoming CIR process this summer
  - Public workshops are scheduled for June

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Capital Prioritization vs. Rolled-in Rate Analysis

Capital Prioritization

In addition to BPA costs and benefits, customer value is assessed to inform BPA investment decision making

Rolled-in Rate Test

Determines whether service from project will be offered at rolled-in rates (CIFA)

Regional Perspective
Examples include:

Costs to Region
Third party transmission costs
Planned/unplanned outage costs

Additional Regional Benefits
Avoided investments by others
Cost of energy delivered
Avoided "Big Bad Outcomes"

Costs
BPA Capital costs
Borrowing costs to BPA

Benefits
BPA Revenues for additional transmission sales
Avoided BPA investments

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Rolled-In Rate Analysis

- Determines whether the project will be offered at rolled-in or incremental rate
- Analysis performed between phases
  - Preliminary estimates are performed after P2 and P3, to inform customers' decision whether to proceed with next phase
  - Official, 'binding' rolled-in rate decision made after P4
- Analysis explicitly captures uncertainty
- Analysis focuses on BPA's costs and benefits only

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Embedded Rate Analysis (cont.): Draft Proposed Assumptions

- Generally two types of inputs to the analysis – costs, revenues/benefits
- Risk from all inputs will be incorporated into one model
- Analysis will produce a distribution of results

Input (type)	Proposed Assumption
Project Cost	Based on SME estimate, will include 80% confidence range for risk assessment (no change from 2013)
Default (sales)	Base risk on customer specific S&P rating (no change from 2013)
LGIA credits	Tied to sales forecast and interconnection forecast (no change from 2013)
Other sales assumptions (including rollover)	Team is still developing proposal (see next slide)

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Uncertainty of Future Sales

- The team is still exploring how it will approach future sales assumptions including rollover, sales in addition to TSEP requests, possible replacement of existing service
- Sources of uncertainty:
  - Market changes, e.g., EIM effects, possible movement to short-term products
  - Chances of rollover of TSEP requests
  - Range of future firm capacity sales
  - Impacts of future RPS requirements
  - Etc.
- Uncertainty in earnings from future sales used to estimate risk of full cost recovery at rolled-in rate
- BPA Rolled-In rate test will be a risk-informed decision
- Expect to bring specific proposals to March TLS workshop

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Next Steps

- Customer feedback sought:
  - Are customers comfortable with a risk distribution as the output of the Rolled-In rate analysis?
  - What involvement should non-Participants of TSEP have in reviewing financial updates?
- Next workshop:
  - Increased detail on Rolled-In rate analysis assumptions
  - Treatment of NT load service needs in TSEP financial evaluation
  - Other issues?

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Cluster Study & Plan of Service Validation (Phases 2 and 3)

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Cluster Study to Plan of Service Validation

- The team anticipates conducting the next cluster study iteration in a similar fashion as the 2013 cluster study
  - BPA posts OASIS notice announcing intent to run a cluster study;
    - Notice would include eligibility criteria, timing and process for conducting the study
    - Timing would include when customers would be required to complete and return Data Exhibits to accompany the TSRs
  - Study would run for 120 days (October 1 – January 31)
  - Output would be the following:
    - Any Direct Assign costs to specific customers;
    - TSR-by-TSR outline of needed transmission reinforcements;
    - Estimated costs and schedule for completion
  - Generally, cluster study output has been high-level and without physical review of locations/facilities identified for reinforcement

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Cluster Study Advance Funding Procedure

- For the 2013 cluster study, BPA estimated the costs to conduct the cluster study, in addition to the MW level that would ultimately participate prior to tendering cluster study agreements
  - This estimate produces a $/MW advance funding requirement
  - True up occurred at completion of cluster study based on actual costs
  - Approach results in advance funding requirements that would vary from cluster study to cluster study
- The team is considering a revision to this process, for discussion and feedback
  - Rather than an advance funding requirement that is dynamic from cluster study-to-cluster study, BPA would establish a single cluster study advance funding requirement
    - Example: BPA would establish a general calculation of 1,000 MW participating in a $250,000 cluster study (resulting in a standard $250/MW deposit for a customer's TSRs)
    - $250,000 approximates the actual cost of the 2013 cluster study
  - As before, BPA and customer would true up based on actuals after completion of the cluster study
    - Would expect that a deposit amount of $250/MW would generally be equal to or slightly higher than the study costs, so the true up would result in a refund to the customer
  - The team believes this approach would both streamline the contract process as well as give participants certainty about advance funding requirements prior to receiving a cluster study agreement

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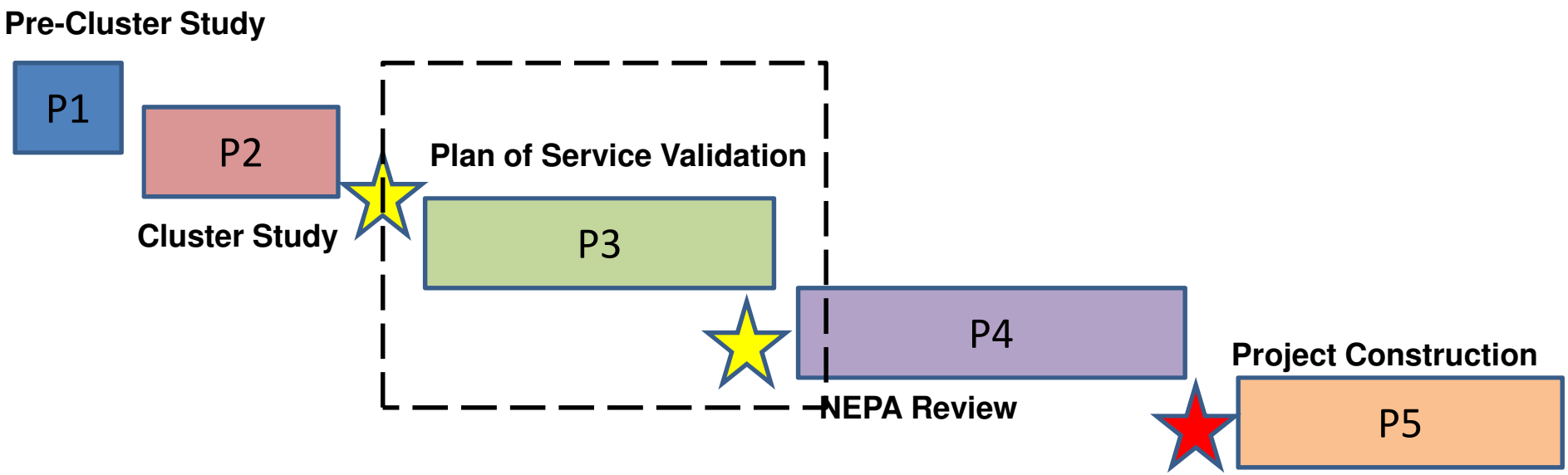
Phase 3 – Plan of Service Validation



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Phase 3 – Plan of Service Validation

- Because the cluster study results are high-level and do not include physical review of the locations/facilities, the Plan of Service Validation (also known as Preliminary Engineering) produces a scope of work with a higher confidence in costs, scope and schedule
  - Aligns with BPA's long term business strategy to improve certainty with environmental impacts and changes in regulatory environment
  - Added value includes standardized design philosophy on asset requirements, and improved risk tolerances during construction

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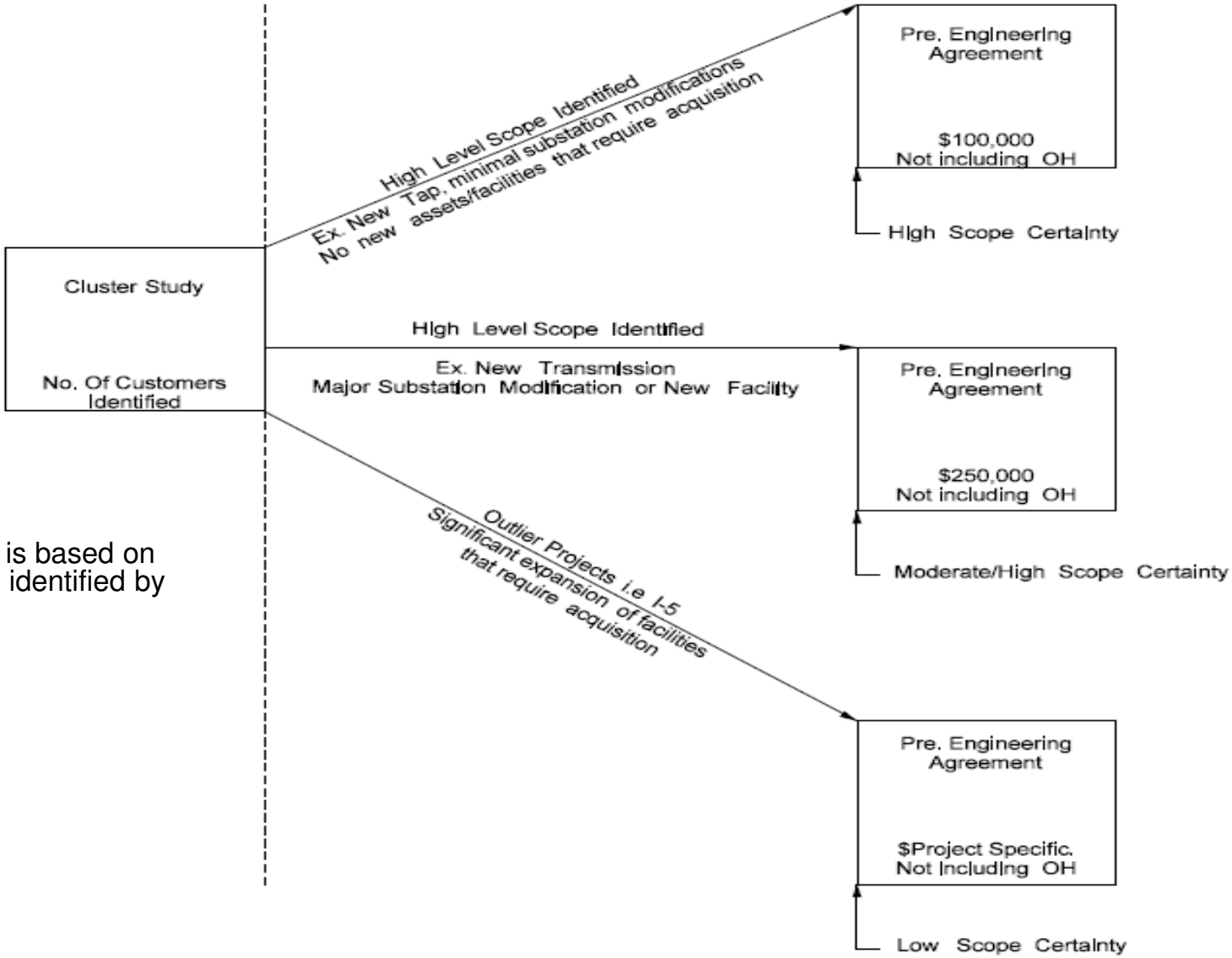
Phase 3 – Plan of Service Validation (cont.)



- Cost of this phase is based on the plan of service identified by the cluster study

Phase 3 Example Output/Deliverables

- Concept design template
- Anticipated NEPA classification (Tier)
  - NEPA requirements would fall under one of the following three types of analysis depending on the magnitude of effects and public concern
    - Categorical Exclusion (CX) memo – 6 to 12 months (est.)
    - Environmental Assessment (EA) – 1 to 2+ years (est.)
    - Environmental Impact Statement (EIS) – 2 to 3+ years (est.)
    - Actual duration of NEPA process is determined by the environmental impacts of the proposal
- Design Option(s) Exhibits
- Concept Design estimate
- Concept schedule for Design/NEPA/Energization

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Phase 3 Uncertainties

- Unknown environmental mitigation not accounted for in Concept Design estimate
  - Example No FONSI finding during NEPA phase to potentially modify schedule
- Schedule volatility on Phase 3 from BPA long-term strategy efforts, changes in regulatory environment
  - Typical Phase 3 durations range from 4 months to 1.5 years

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Next Steps

- Because Phases 2 and 3 of the TSEP design are closer in time to today, important to review the details on these processes before TSEP kickoff
- Will discuss principles and details around Phases 4 and 5 (NEPA review and construction) at future workshops
- Customer feedback sought:
  - Would customers prefer/support a standardized cluster study deposit of $250/MW as identified on slide 14?

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Questions/Feedback

- Questions?
- Note: per slides 11 and 20, BPA is requesting customer/stakeholder feedback on specific questions/issues
- If stakeholders wish to respond, please submit comments to BPA's Tech Forum (techforum@bpa.gov) by COB Friday, February 19
  - Identify the email subject as "TSEP Workshop Comments"

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