

NOS Reform Structure and Alternatives

December 14, 2012

NOS Reform Update

- NOS Reform team has continued to develop and refine key components of a future NOS process.
 - Key components are supported by BPA executives.
- Purpose of this meeting is to identify NOS Reform alternatives under consideration and staff leanings.

NOS Reform Alternatives

- Alt 1: *Pro Forma* (BPA Tariff)
- Alt 2: Status Quo
 - Maintain 2010 NOS process
- Alt 3: 12 Month Modified NOS
 - 12 month process with updated structure, preliminary business evaluation, eligibility and financial requirements, and a Precedent Transmission Service Agreement (PTSA).
- Alt 4: 24 Month Modified NOS
 - 24 month process with updated structure, preliminary business evaluation, eligibility and financial requirements, and PTSA.
- Alt 5: Non-NOS Cluster Study prior to NOS Entry (interim)
 - 12 month process with updated structure that combines a **tariff** cluster study, preliminary business evaluation, eligibility and financial requirements, and PTSA.

Alternative 1: Pro Forma (BPA Tariff)

- BPA would stop doing NOS altogether and process all requests under the OATT study process (as it exists in BPA's tariff)
 - Potential for cluster study
- Frequency
 - As requested
- FERC filing to restart NOS in June 2013:
None

Alternative 2: Status Quo

- Restart NOS using the 2010 NOS process rules with no changes
- Frequency & Duration
 - 12 month process, conducted annually
- PTSA to enter process, plus 1-year Performance Assurance
 - No Performance Assurance for DNR attestations
- Exhibit B data requirements for TSRs
- FERC filing to restart NOS in June 2013: None

Alternative 3: 12 Month Modified NOS

- Frequency & Duration
 - 12 month process conducted annually
- Eligibility requirements
 - 5-year minimum TSR term
 - TSR data requirements: ultimate source/sink required (possible market hub delivery limitations)
- Two contracts
 - Cluster Study Agreement offered after window closes (July 1)
 - Applicable Environmental Study Agreement (one of the following)
 - PTSA offered after business evaluation and before NEPA, or
 - NEPA agreement offered before NEPA for incremental rate projects (process follows OATT)

Alternative 3: 12 Month Modified NOS (continued)

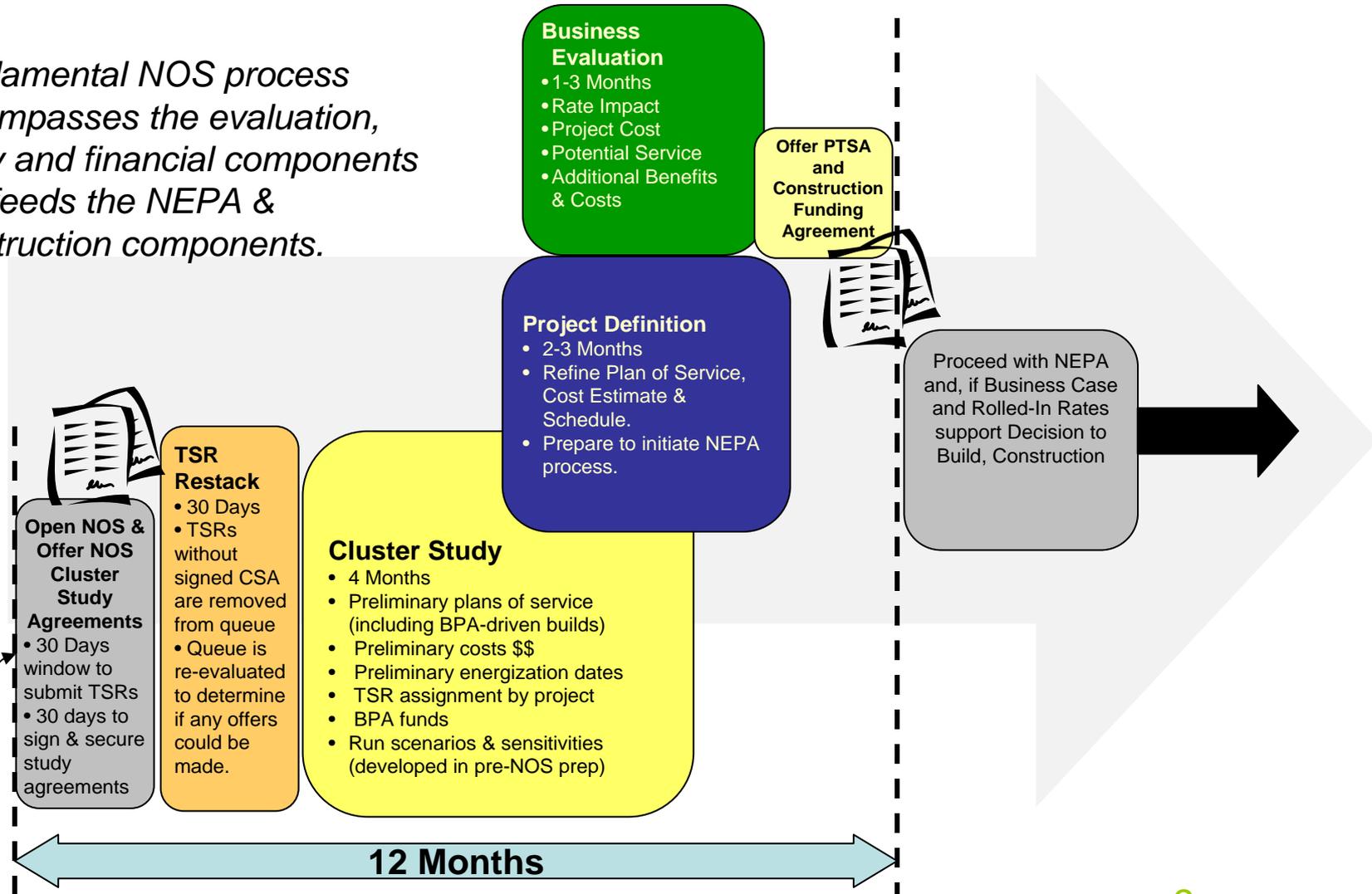
- Off-Ramps
 - Cluster study agreement (Customer)
 - PTSA agreement (Customer)
 - Rolled-in Rate determination (Customer) – BPA must offer service under incremental rate
 - NEPA decision (BPA)
 - Decision to build (BPA)
 - Construction Commencement deadline (Customer and BPA) – If BPA does not commence construction within 5 years of BPA's announcement of final decision to build .
- Enhanced financial commitments
 - Study stage (provided in two installments, at NOS entry and before NEPA),
 - Construction stage, likely with tiered financial commitment (and possible DNR exemptions)
- FERC filing to restart NOS in June 2013: February 2013

TSR Eligibility Requirements

- Southern and Montana Intertie TSRs are not eligible
- Minimum 5-year TSR duration (alts. 3 & 4)
- Ultimate Source and Ultimate Sink (or Generation Displaced) per OATT 17.2 and 29.2
 - TSRs demonstrating a companion TSR into or out of a market hub could be eligible
 - Deficient information will result in removal of the associated TSR from the queue.

NOS Reform Alternative 3 Model

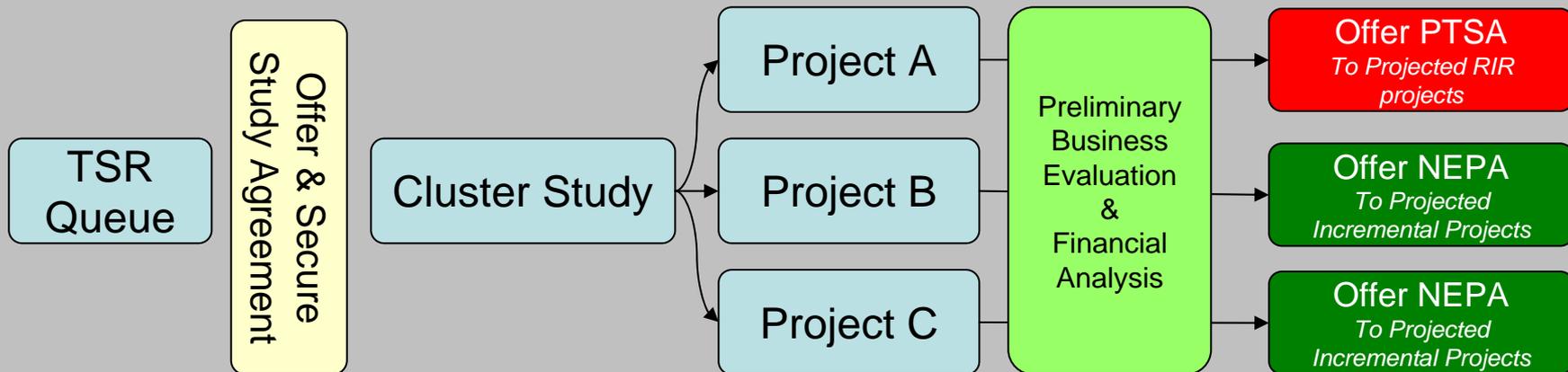
- *Fundamental NOS process encompasses the evaluation, study and financial components and feeds the NEPA & construction components.*



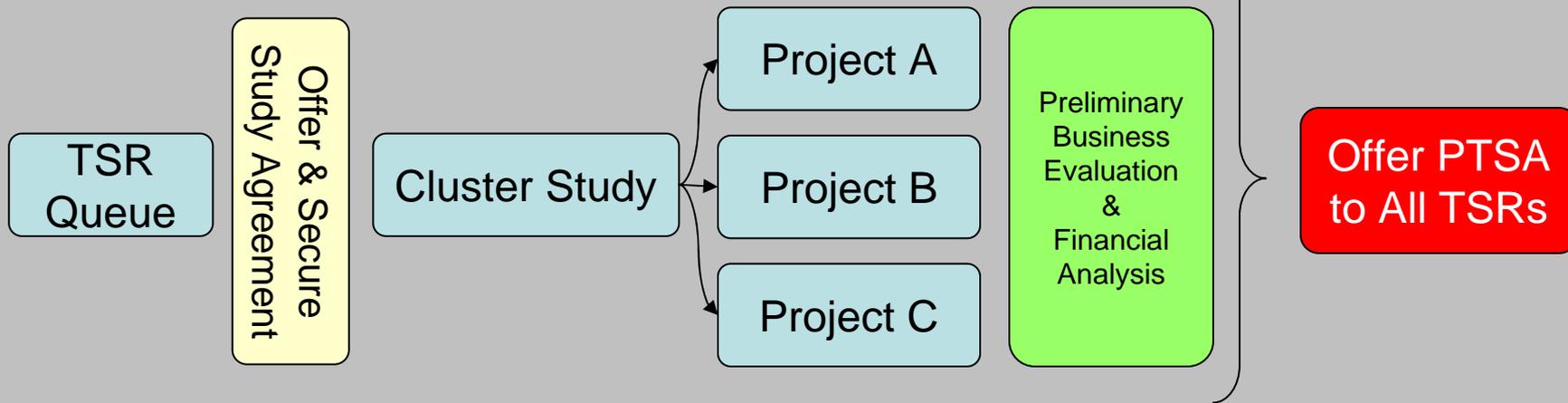
Treatment of the PTSA

Should BPA (A) offer PTSA only to projects that appear probable of ultimately moving forward at RIR? Or, (B) offer PTSA to all TSRs exiting cluster study?

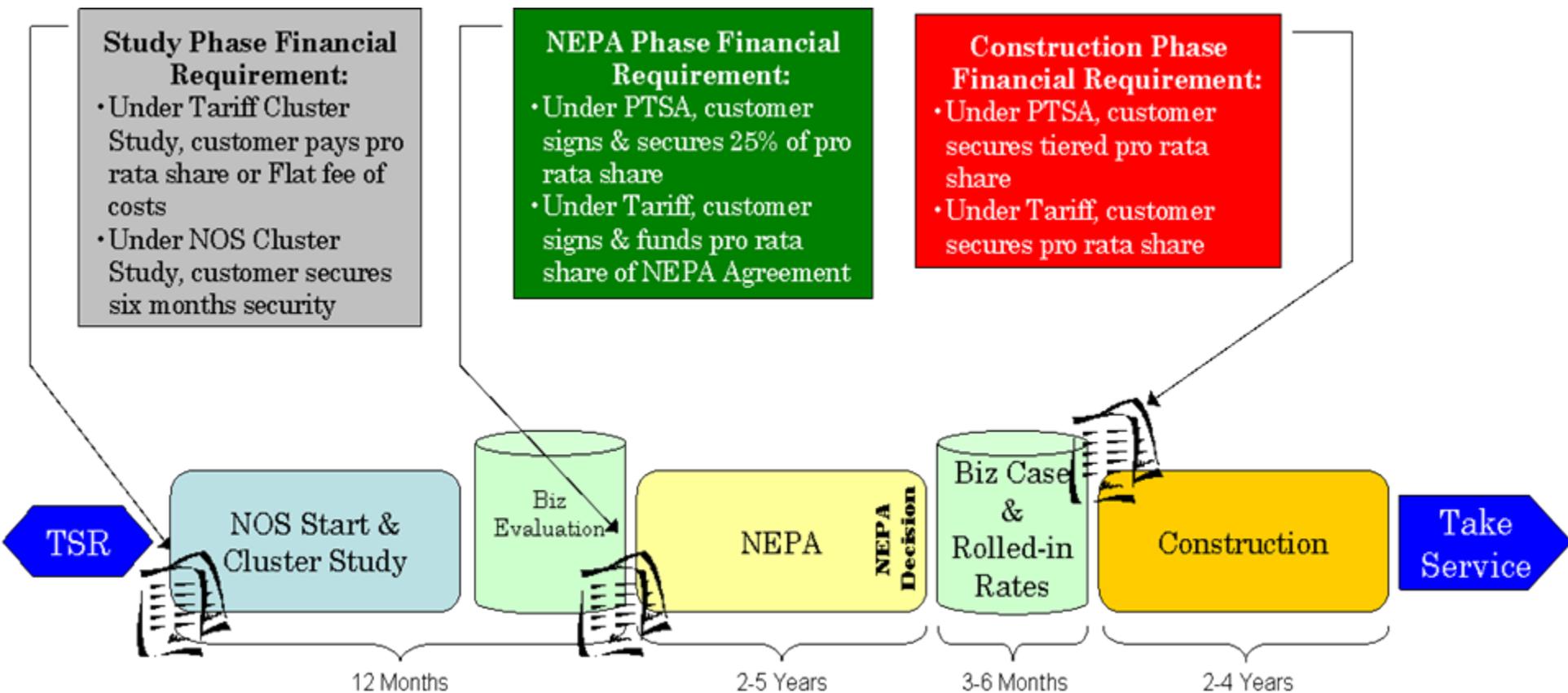
A: Limited Offer of PTSA



B: Comprehensive Offer of PTSA



NOS Reform: Timing of Contracts & Financial Phases



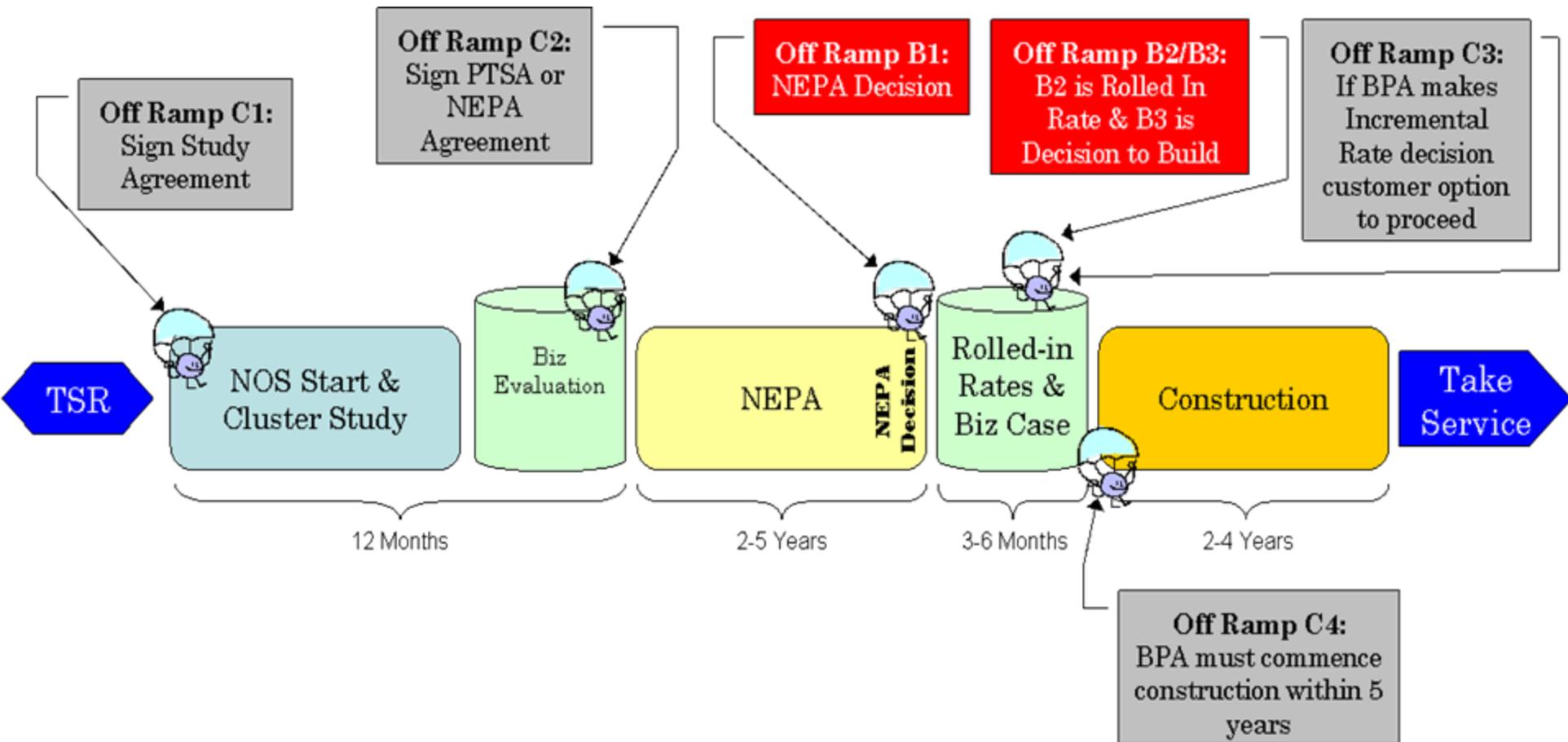
Customer Off-Ramps

1. Pre-cluster study – customer choice to sign cluster study agreement (TSR removed from queue)
 - Prior to June 1 opening of NOS window, customer can request individual study.
2. Post-cluster study, customer choice to sign PTSA or environmental study agreement (whichever offered) (TSR removed from queue)
3. BPA rolled-in-rate determination (post-NEPA) – option to proceed at incremental rate treatment (or TSR removed from queue)
4. Construction Commencement deadline (Customer and BPA) – If BPA does not commence construction within 5 years of BPA's announcement of final decision to build .

BPA Off-Ramps

1. NEPA decision
2. Rolled in rate determination (after environmental review) – customer retains option to proceed at incremental rate
3. Business decision to proceed with build (with annual review of business case)

NOS Reform: Off Ramps



 = off ramps

Alternative 4: 24 Month Modified NOS

- Frequency & Duration – 24 month process
 - BPA would commit to run a NOS process at least every two years (could still run the cluster study process in 12 months)
- Eligibility requirements
 - 5-year minimum TSR term
 - TSR data requirements: ultimate source/sink required (possible market hub delivery limitations)
- Two contracts
 - Cluster Study Agreement offered after window closes (July 1)
 - Applicable Environmental Study Agreement (one of the following)
 - PTSA offered after business evaluation and before NEPA, or
 - NEPA agreement offered before NEPA for incremental rate projects (process follows OATT)

Alternative 4: 24 Month Modified NOS (continued)

- Off-Ramps
 - Cluster study agreement (Customer)
 - PTSA agreement (Customer)
 - Rolled-in Rate determination (Customer) – BPA must offer service under incremental rate
 - NEPA decision (BPA)
 - Decision to build (BPA)
 - Construction Commencement deadline (Customer and BPA) – If BPA does not commence construction within 5 years of BPA's announcement of final decision to build .
- Enhanced financial commitments
 - Study stage (provided in two installments, at NOS entry and before NEPA),
 - Construction stage, likely with tiered financial commitment (and possible DNR exemptions)
- FERC filing to restart NOS in June 2013: February 2013

NOS Reform Alternative 4 Model

- *Fundamental NOS process encompasses the evaluation, study and financial components and feeds the NEPA & construction components.*

Business Evaluation

- 1-3 Months
- Rate Impact
- Project Cost
- Potential Service
- Additional Benefits & Costs

Offer PTSA and Construction Funding Agreement



Project Definition

- 6-14 Months
- Refine Plan of Service, Cost Estimate & Schedule.
- Prepare to initiate NEPA process.

Proceed with NEPA and, if Business Case and Rolled-In Rates support Decision to Build, Construction

Cluster Study

- 6 Months
- Preliminary plans of service (including BPA-driven builds)
- Preliminary costs \$\$
- Preliminary energization dates
- TSR assignment by project
- BPA funds
- Run scenarios & sensitivities (developed in pre-NOS prep)

TSR Restack

- 30 Days
- TSRs without signed PTSAs are removed from queue
- Queue is re-evaluated to determine if any offers could be made.

Open NOS & Offer NOS Study Agreements

- 30 Day window to submit TSRs
- 30 days to sign & secure study agreements



LTF TSR Submittal



NOS Filing Timeline

- What to file?
 - NOS Cluster Study agreement
 - PTSA
 - Tariff revisions
- When to file?
 - Depends on the alternative; however, any alternative needing a tariff modification to start NOS in June 2013 (Alts. 3 & 4) would require a February 2013 tariff filing.
- Challenge
 - Based on existing resources and historical public process, is a February filing realistic?

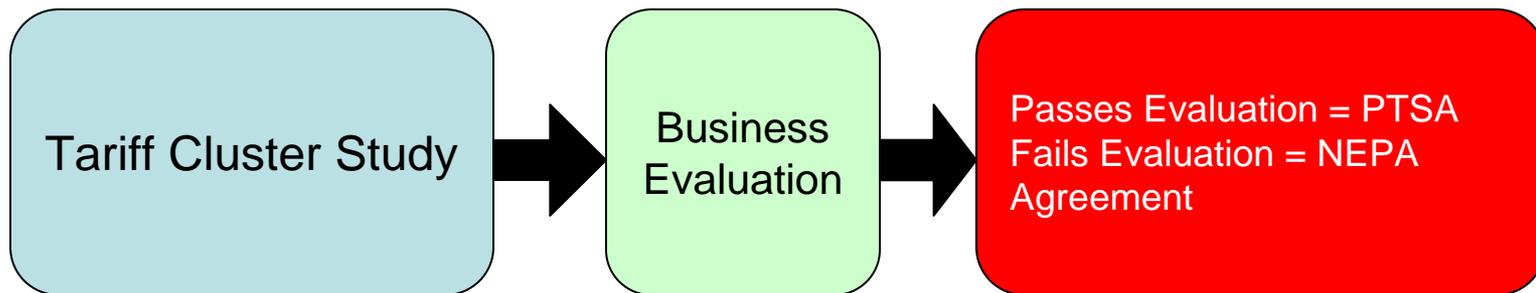
Alternative 5: Non-NOS Cluster Study Prior to NOS Entry (Interim)

- Description: Enter process through a **tariff** cluster study, then transition into environmental agreement or NOS PTSA.
 - Includes post-cluster study business evaluation.
- Frequency & Duration
 - 12 month process conducted annually
- Eligibility requirements
 - One-year minimum TSR term at entry (possible 5-year minimum term to receive PTSA).
 - Ultimate source/sink required (possible Hub delivery limitations)
- Two contracts
 - Cluster Study Agreement offered after window closes (July 1)
 - Applicable Environmental Study Agreement (one of the following)
 - PTSA offered after business evaluation and before NEPA, or
 - NEPA agreement offered before NEPA for incremental rate projects (process follows OATT)

Alternative 5: Non-NOS Cluster Study Prior to NOS Entry (continued)

- Off-Ramps
 - Same as Alternatives 3 and 4
- Enhanced financial commitments
 - Cluster Study stage: *pro rata* share of costs
 - If under PTSA, applicable environmental study commitment, plus construction stage financial commitment (likely tiered and with possible exemption for DNRs), or
 - If under non-NOS study process, customer pays for NEPA and provides construction security for full *pro rata* share
- FERC Filing Requirement:
 - No FERC approval required to initiate a non-NOS cluster study - uses existing OATT provisions to conduct cluster study phase.
 - Modified PTSA would require filing prior to tender.

Alternative 5



June	July	August	September to December	January to March	April	May	June '14
Open Tariff Cluster Study window	Receive signed and funded study agreements	Queue Restack & Cluster Study prep	Cluster Study	Business Evaluation	Presentation to Region	Deploy PTSA or NEPA agreements	Open Tariff Cluster Study window

- Run under the provisions of the BPA OATT.
- Duration of 120 days
- Consideration of cluster study running every 12 months (annually)

- Duration = 2-3 months
- Each resulting plan of service is subjected to a business evaluation.
- Business evaluation includes preliminary financial analysis, plan of service, estimated project costs, anticipated TSR revenue, +/-zero NPV & CIFA evaluation, reliability benefits, environmental review costs and other inputs that informs decision to proceed under PTSA or incremental rate.
- Business evaluation would be defined by the ability to meet pre-determined criteria (see chart).

- For plans of service that pass the business evaluation, BPA would offer a PTSA that would govern the process through project energization and the commencement of service.
- For plans of service that fail the business evaluation, BPA would offer a NEPA agreement for each associated TSR that the customer would need to sign and fund or else withdraw their TSR.

Alternative 5: Benefits & Risks

- Benefits
 - Bifurcates two primary NOS objectives.
 - Queue management – managed by tariff provisions (19.10)
 - Financial requirements for cluster study based on either pro rata share of projected cluster study costs or flat fee per TSR.
 - TSR requirements consistent with individual study process (Source/Sink)
 - Planning for commercial expansion – leverages new risk-tolerant process developed in NOS Reform
 - Timing: Enables BPA to begin process in June (cluster study starts September)
 - Since using existing provisions in the BPA OATT, a FERC filing is not required by February 2013
 - Addresses customer & BPA desire to see queue management restart in June 2013.
 - Could develop into a long-term, recurrent, process
- Risks
 - Lower financial hurdle to enter study process; speculative requests
 - Potentially more opt-outs and re-study may result
 - Need to assess relationship between annual cluster studies and re-studies.

Examples of Business Evaluation Metrics

	Metrics	Explanation and Threshold
1)	Net Present Value (NPV)	Financial evaluation of the project results in a positive NPV.
2)	Customer & MW Diversity	Types of customers requiring project represent as broad a cross-section as possible and the involved MW aren't for a single customer.
3)	Access to Capital	Project has the desired impact to access to capital.
4)	Regional Economic Benefit Analysis (REBA)	Project delivers economic benefits to the region.
5)	Reliability and/or Load Service Benefits	Project delivers reliability benefits or is necessary to meet future load obligations. Where possible, convert into financials that can be incorporated into CIFA. TSRs are backed by a signed PPA, DNR attestation and/or demonstration of delivery to NW load.
6)	Project Readiness	Project needs no or limited further evaluation to define scope, costs and NEPA/project schedule (i.e. M2W required results of SSR study before project capacity could be clearly defined).
7)	Supports Regional Policies	TSR demonstrates support of a regional policy (e.g. associated with new wind resource).

Initial BPA Staff Leaning

- Staff supports Alternative 5
 - Enables June 2013 process start
 - Queue restack July 2013
 - Cluster study starts September 2013
 - Provides additional time to prepare OATT filing, including PTSA –
 - No February 2013 filing
 - Provides time to evaluate Alternative 5 as a long-term process

Next Steps

- Comment period ending January 11, 2013.
- BPA final decision end of January 2013.
- Customers informed February 2013 of final decision.
- Spring 2013
 - Develop study agreement and PTSA templates, bulletin and OATT filing language.
 - Begin review of cluster study assumptions.
 - Set up meetings for the Commercial Infrastructure Financial Policy (CIFP) after a decision on NOS process alternative is made.

Appendix

Comparative Matrix of NOS Alternatives

	Alt 1: Pro Forma	Alt 2: Status Quo	Alt 3: 12 Month Modified	Alt 4: 24 Month Modified	Alt 5: 12 Month Tariff Cluster Study
Cycle	None	Annual	Annual	No more than once every two years	Annual
Process Duration	None	12 months	12 months	24 months	12 months
Source/Sink	Yes	Exhibit B	Yes	Yes	Yes
Minimum Duration	1 year TSR minimum duration	1 year TSR minimum duration	5 year TSR minimum duration	5 year TSR minimum duration	One year TSR minimum duration
Study Financials	Customer Funds	BPA Funds	Customer Secures	Customer Secures	Customer Funds
NEPA Financials	Customer Funds	BPA Funds	PTSA: Customer Secures NEPA: Customer Funds	PTSA: Customer Secures NEPA: Customer Funds	PTSA: Customer Secures NEPA: Customer Funds
Construction Financials	Customer Secures	BPA Finances	Tiered Financial Requirements	Tiered Financial Requirements	Tiered Financial Requirements
BPA Off-ramps	1. NEPA decision 2. Rolled-in Rate 3. Decision to build	1. NEPA decision 2. Rolled-in Rate 3. Decision to Build	1. NEPA decision 2. Rolled-in Rate 3. Decision to Build	1. NEPA decision 2. Rolled-in Rate 3. Decision to Build	1. NEPA decision 2. Rolled-in Rate 3. Decision to Build
Customer Off-ramps	1. Study agreement 2. NEPA agreement 3. Construction agreement	1. PTSA/Non-NOS study 2. 39 month deadline 3. Service commencement date	1. Cluster study agreement 2. PTSA/NEPA agreement 3. Rolled-in Rate 4. Decision to Build	1. Cluster study agreement 2. PTSA/NEPA agreement 3. Rolled-in Rate 4. Decision to Build	1. Cluster study agreement 2. PTSA/NEPA Agreement 3. Rolled-in Rate 4. Decision to Build
Contract Summary	SIS Agreement	PTSA only	Cluster Study Agreement & PTSA/NEPA Agreement	Cluster Study Agreement & PTSA/NEPA Agreement	Cluster Study Agreement & PTSA/NEPA Agreement
Filing Deadline	None	None	Feb '13	Feb '13	Fall/Winter '13/'14

Proposed Preliminary Financial Analysis Approaches

- Provide # of MWs needed in order to be a rolled-in rate
- Provide preliminary rate pressure of all TSRs used in the Cluster Study
- Use of both approaches would require more time for analysis – expect 90 days (currently 30 days)

CIFA Assumption Changes Based on Customer Input

- Include transmission credits in our analysis for the Commercial Infrastructure Financial Analysis (CIFA)
- Assume an 85% rollover with a probability of additional resale of AFC released
- Provide sensitivities of default risk with the probability of additional resale of AFC released
- Provide a sensitivity of capital spending plus or minus 20-30% of the estimated capital spending of the proposed projects identified in the Cluster Study
- Provide a sensitivity of deferrals based on generation interconnection and other information
- Assume third party financing unless otherwise determined by the NOS Financial process
 - If we assume payback in transmission credits, this will increase the rate impact

CIFA Assumptions

- Rates
 - Discount Rate = 9%
 - Borrowing Rate = TBD
 - Construction inflation rate = 1.7%
 - PTP inflation rate = 1%, used on the PTP rate
- Overhead Loadings
 - For the NPV calculation, an incremental loading cost of \$2 millions per project per year of construction
 - For the embedded rate calculation, the average IPR forecasted composite loading percentage of 23% is used
- Embedded Rate Calculation
 - Current \$6.0 million = 1% rate pressure, does not inflate over time
 - Rule of thumb is divided into incremental costs from repayment assumptions by year
 - Average rate calculations start averaging the first year the projects (or if a cluster the first year that ALL projects) are energized and average 5, 10, and 20 years subsequent to energization
- Subscriptions
 - Base PTP rate = BP-14 rates, used to calculate subscription revenues
 - Subscriptions of 5 years and over are assumed to roll-over indefinitely