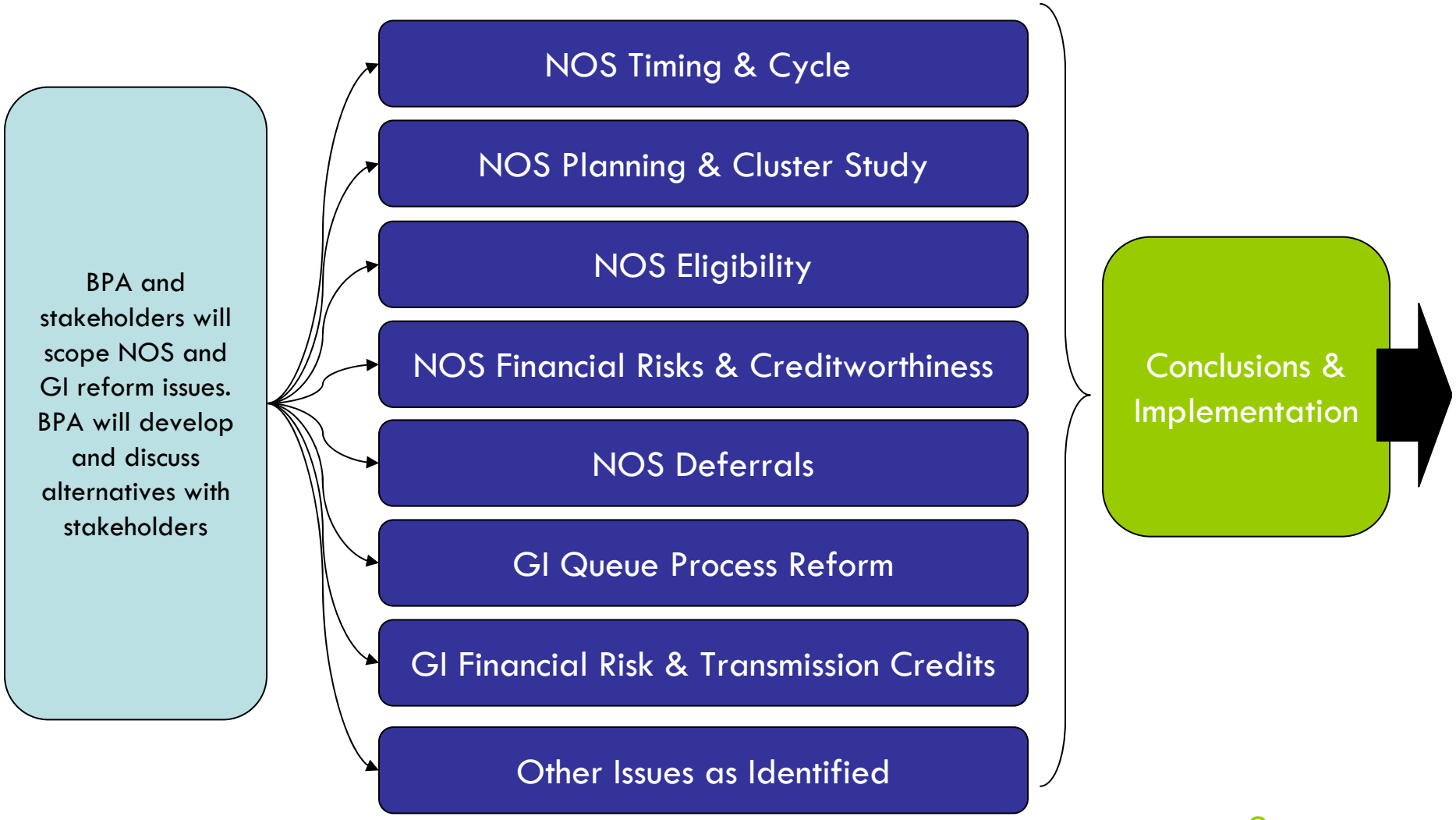
Network Open Season/Generator Interconnection Reform

NOS Timeline & Cycle

December 6, 2011

NOS/GI Reform Effort

Stakeholder Involvement



Current NOS Timeline & Cycle

- 2008-2010 NOS were conducted on an 12 month timeline, with each subsequent NOS beginning immediately at the close of the previous NOS
- The goal of this aspect of the NOS Reform effort is to determine a more appropriate timeline for future NOS processes

Status Update

- Over the last few months, BPA staff have focused on identifying elements of the NOS process that would benefit from an extended timeline
- Following are the areas currently identified:
  - Coordinate with Customers and impacted adjacent Transmission Providers
    - Develop assumptions for use in the Cluster Study
    - Identify scenarios that require additional study
  - Conduct the Cluster Study/scenario analysis
  - Efforts currently conducted after the Rolled-In Rates determination:
    - Transmission Project impact scoping
    - Preliminary engineering and design (PED)
    - Continued coordination with Customers and impacted adjacent Transmission Providers
    - Additional technical studies (e.g., SSR)

Developing Assumptions

- During the 2010 NOS, BPA staff spent approximately three months working with stakeholders to develop assumptions for use in the Cluster Study
  - April-July 2010
  - See slides 13-16 & 17
- Feedback received during and after that effort indicated more time was needed in future NOS processes for this collaboration
- BPA staff believe 4-6 months would be adequate, which would permit several meetings with Customers and adjacent Transmission Providers

Identifying Scenarios

- During the 2010 NOS, BPA had time to conduct only two scenario analyses and these were aimed primarily at evaluation of the impact of wind output on FCRPS dispatch
  - See slides 14, 15 & 17
- Feedback received after the selection of these sensitivities indicated more time was needed in future NOS processes to:
  - Coordinate publically to identify and prioritize scenarios
  - Analyze additional scenarios
- BPA staff believe identification and prioritization of scenarios could occur in tandem with the development of assumptions described on the previous slide

Conducting the Cluster Study

- During the 2010 NOS, BPA's tariff allotted 120 days to perform the Cluster Study – following are the activities that occur during this window:
  - Scenario analysis
  - Plan of Service development
  - Cost estimate development
  - Transmission Project schedule development
- Additional time is needed for the Cluster Study, given:
  - Number of requests submitted in each of the previous Network Open Seasons;
  - Degree of increasing load/resource imbalance within the BPA footprint
  - Need for coordination with impacted adjacent Transmission Providers
- BPA staff believes a total of 6-9 months would be adequate for a more extensive study with a greater number of sensitivities
  - This would require a tariff modification

Work Currently Conducted After the Rolled-In Rates Determination

- In the 2008 & 2009 NOS, Transmission Project impact scoping and PED occurred in parallel with the following NOS
  - NEPA for 2008 NOS began as the 2009 NOS started
- Increasing complexity and impacts on adjacent Transmission Provider systems signal that:
  - More time is needed for this work
  - It may be appropriate to conduct this work prior to the Rolled-In Rates determination and the beginning the next NOS
- BPA staff is evaluating how much time would be adequate for Transmission Project impact scoping and PED prior to the subsequent NOS

Prospective NOS Timeline

12 months for the current NOS process
+ 1-3 months for additional assumption & scenario development
+ 2-5 months for more Cluster Study/scenario analysis
+ ??? months for Transmission Project impact scoping and PED

= Estimated minimum of 15-20 months, plus time for Transmission Project impact scoping and PED for future NOS process

Prospective NOS Timeline

Activity	Current Duration	Potential Add'l Time	Potential Future Duration
Assumption development & sensitivity identification	3	1-3	4-6
Request Window			
PTSA Development			
PTSA execution	0.5	n/a	0.5
Queue re-stack	4	2-5	6-9
Cluster identification			
Sensitivity case development			
Planning case development			
Plan of Service identification			
Cost estimates			
Schedule development			
CIFA & REBA	2.5	n/a	2.5
Rolled-in rates determination	2	n/a	2
Transmission Project impact scoping & PED	0	???	???
Total Duration	12 mo.	> 3-8 mo.	> 15-20 mo.

Potential Influences on NOS Cycle

- Other existing process timelines that may influence the future NOS timeline:
  - Rate Case = 2 years
  - Planning Attachment K = 2 years
  - Integrated Resource Plans (IRP) = ~2 years
  - Regional Dialogue elections = ~2-5 years
  - Others?

Next Steps

- BPA staff will develop alternatives for the proposed NOS timelines in preparation for a future public discussion
  - Comments on today's content will be considered in the development of these alternatives
- Submit comments and feedback to TechForum@BPA.gov

Background on NOS Cluster Study

From the July 20, 2011 Presentation

- A key component of the Cluster Study is a Powerflow analysis which balances generation with load and exports in the region
- BPA uses the information that customers provide in their TSR/PTSA to inform the Cluster Study; however, because the region has more generation than load and export capability, BPA must make assumptions to resolve that imbalance

Background (cont.)

From the July 20, 2011 Presentation

- For the 2008 and 2009 NOS Cluster Studies, assumptions included reducing the modeled federal and non-federal Mid-C generation (i.e., "backing off" hydro generation with a firm right to dispatch)
- For the 2010 NOS Cluster Study, assumptions included:
  - Inclusion of "95th Percentile" FCRPS generation
  - Reducing modeled wind output to 60% of contract demand
  - Reducing all other non-federal generation [primarily thermal] according to a merit-order dispatch
  - Running two additional dispatch scenarios:
    - High-wind – 100% of wind contract demand, displacing non-federal thermal resources according to the same merit-order dispatch
    - No wind – 0% of wind contract demand replaced by moderate thermal output based on thermal generation dispatch sequence and increased federal hydro dispatch increased at Grand Coulee and Chief Joseph

Problem Statement

From the July 20, 2011 Presentation

- Simultaneous modeling of all LTF transmission rights is not possible within the Powerflow, so assumptions must be made regarding which resources to "back off"
- BPA believes that assumptions previously used to achieve balance of generation to load and export capability should be reconsidered before the next Cluster Study
- The wrong assumptions may result in identification of incorrect infrastructure upgrades or failure to identify needed upgrades
- This is exacerbated by:
  - Submission of TSRs to the NOS process where the ultimate source and/or sink can't be identified, e.g.:
    - Mid-C as either the POR or POD
    - Seller's choice Power Purchase Agreements
  - The time allotted (120 days) to perform the Cluster Study limits the number of scenarios/sensitivities that can be conducted
    - How many dispatch scenarios can be accommodated?
    - How will these scenarios be selected?

Principles for Developing Cluster Study Process

From the July 20, 2011 Presentation

- Information required of NOS participants is available, accurate, and useful to Transmission Services
- Risk associated with inaccurate information and/or assumptions (e.g., the wrong build is identified) is balanced between BPA, stakeholders and ratepayers

Options for Consideration

From the July 20, 2011 Presentation

- Require detailed TSRs for all new transactions to be modeled in the NOS cluster study (i.e., the ultimate Source/Sink can be easily identified)
  - Eliminate market hubs as viable POR/PODs for NOS requests unless the "other half" of the transaction can be validated
  - Require evidence of PPAs to support transmission service need
  - Eliminate "Seller's choice" PORs for NOS requests
- Develop a regional load/resource balance plan
- Continue to refine assumptions related to variable energy resources (i.e., wind, solar)
- Allow more time for scenario/sensitivity development and analysis
- Others?