

Queue Management - Detail

FY 2018

FY 2019

Revise Rollover Policy

TSRs with Rollover in pending queue must submit a conformance TSR \geq five (5) years

If customer does not submit conformance TSR, they will not get rollover rights

★ If TSR is in study process, customer must submit a conformance TSR that matches build's energization date; which must be \geq five (5) years

★ For customers who have Redirects $>$ 1 year, but $<$ than five (5) years, customer must submit a conformance TSR \geq five (5) years

No renewal request, rollover rights return to parent

★ Redirects $<$ 1 year, customer must submit a renewal request on same day their redirect is confirmed for rollover

If customer does not submit a conformance TSR, BPA will terminate redirect, and the rollover rights return to parent

Re-bids on Capacity

Update Business Practices to allow rebid on capacity and term (not price)

★ Customer can confirm, withdraw or rebid counteroffer to lower capacity or shorter term on OASIS (when customer gets counter offer)

Long-Term requests result in new contract action and another 30 day response period

Eliminate Remainder Policy

Allow remainders in pending queue to remain if termination date matches termination date of parent request

★ Allow customer to submit remainder to extend termination date out to five (5) years

Remainder will retain queue time of parent request

Remainder currently in queue does not extend to end of term of parent request and does not have ROFR removed from queue

Source/Sink Required

Enforce complete application requirements in 17.2 and 17.4 of BPA tariff

★ Modify application to require source/sink. Have customers submit information at time of TSR submittal via attestation similar to those currently completed for study process

Identify resources to verify completeness of application

Validate TSR per current Business Practice

ATC - Detail

FY 2018	FY 2019	FY 2020	FY 2021
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Split ATC into Short and Long-Term Operations

- Analyze existing processes
- Identify roles and responsibilities
- Leverage lessons learned
- Determine overall coordination and structure

Automate ATC Powerflow Inputs

- Identify all sources of inputs
- Powerflow tool evaluation
- Data Transformation

Output of Powerflow into OATI Frequently for Short-Term ATC

- Internal/External Powerflow application benchmarking
- Dedicated team for capability development

★ **Assess Better Tool for Congestion Information**
Steps yet to be identified

ATC Performance Metrics

- ★ Develop process/measures to monitor and make adjustments
- ★ Refine process and/or metrics based on performance

Calibrated Model Assumptions

- Identify current state assumptions
- Determine what can/cannot be changed from baseline
- ★ Define goals for long-term request processing/commitment/ sales

Goals Include:

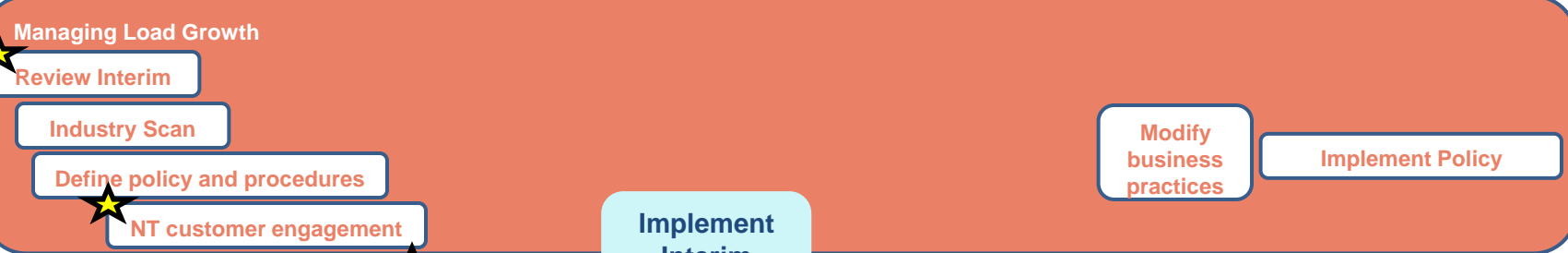
- Worst-case vs. adequacy approach - determine a certain amount of risk to be acceptable
- Align decisions about awarding transmission service to our defined risk tolerance
- Meet regional transmission needs at lowest risk-adjusted cost
- Clarify the level of curtailment risk more (outside of outages)
- Provide clear signals on the effective location to interconnect new generation or new load
- Balance the cost of congestion management with the cost of congestion prevention

Stop Calculating and Posting LT ATC

- ★ Heat map or proactive studies for ideal locations for new generation and loads
- ★ Communication process for customers to engage with BPA (replace 'what if' ATC scenarios)
- Transition plan: current state to future state ATC
- Seams plan between short and long-term processes
- ★ Conditional Firm Policy

FY 2018	FY 2019	FY 2020	FY 2021
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Use NOA as Tool to Manage Aspects of NT Relationships (developing NOA)



Study - Detail

E N G I N E E R I N G P O W E R A D M I N I S T R A T I O N



FY 2018	FY 2019	FY 2020	FY 2021
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Conditional Firm as Part of System Impact Study Steps yet to be identified

★ Planning Redispatch as Part of System Impact Study

- Study process to assess requirements for generation flexibility to free up capacity for TSR
- Notify customers of redispatch necessary to enable TSR **★**
- Protocols to implement redispatch, per bilateral agreements
- Offer service containing redispatch provisions

★ Conform CF PTP Pro Forma

- Establish Process for customers to indicate preference for Conditional Firm assessment
- Offer Conditional Firm only to customers indicating preference for such an offer
- Re-evaluate need for Conditional Firm "number of hours" inventory methodology
- Develop study process to assess Conditional Firm offer potential response to a TSR

★ Intertie System Impact Study

- Intertie System Impact Study Methodology
- Send Customers Intertie Agreements
- Conduct Intertie Studies
- Rollout Intertie Study Results

★ Repeatabe and Consistent Study Follow Through

- Move TSRs and Associated Plans of Service forward following study completion
- Internal processes to facilitate quick decision making on issues resulting from study
- Establish ability to develop, communicate and offer Plans of Service, Policy to offer Plans of Service at incremental rates when appropriate
- Incorporate prior aspects of study, including Conditional Firm and/or Planning Redispatch, possible non-wires solutions to increase service options

★ Continue to Develop More Tools than Build

- Test feasibility of alternatives
- Perform System Impact Studies on alternatives, prevent negative impact on system
- Initial scoping of alternatives, costs, project requirements, experts or vendors as needed
- Selection criteria for alternatives, cost and ATC benefits
- Move project to next cluster study

Hourly Firm - Detail



FY 2018	FY 2019	FY 2020	FY 2021
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Address Unlimited Hourly Firm Product

Status Quo

Alternatives Analysis

Tariff Language

Implementation Specs

System Updates

★ Customer Meetings

★ Customer Meetings

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Schedule 3 Language

Revise BPA Tariff change process in Section 9 of the BPA Tariff

Add new FERC language on "Speed and Accuracy" to Schedule 3 "Regulation and Frequency Response Service"

★ Review language with customers in regional stakeholders process

Insert final pro forma language into BPA's Tariff

Schedule 9 Generation Imbalance

Revise BPA Tariff Change Process in Section 9 of the BPA Tariff

Remove Real Power Loss Calculation language from Schedule 9

Draft language for Schedule 9 "Generation Imbalance Service" that is consistent with FERC proforma as possible

★ Review language with customers in regional stakeholders process

Insert final pro forma language into BPA's Tariff

Schedule 3A/10 Generation Imbalance Capacity

Revise BPA Tariff Change Process in Section 9 of the BPA Tariff

Draft Schedule 3A/10 for Balancing Service for Variable Energy Resources and Dispatchable Energy Resources (VERBS and DERBS)

★ Review language with customers in regional stakeholders process

Insert final pro forma language into BPA's Tariff

Real Power Losses - Detail

FY 2018

FY 2019

FY 2020

FY 2021

Explore Calculating Losses Methodology

- ★ Decide how granular the loss factors should be: Seasonal? Daily?
- Identify the data needed to calculate the loss factors at the desired granularity
- Determine how often should the loss factors be updated?
- ★ Evaluate tariff / business practice change

Explore Financial only settled losses

- ★ Reevaluate loss payback rates
- Transition plan for non-standard OATT contractual provisions
- Planning for load service to account for absence of in-kind returns
- ★ Tariff, rate case requirements and business practice

Explore Concurrent Losses

- ★ Customer outreach and benchmarking
- Costs associated with Concurrent Loss
- Planning for load service to account for addition of concurrent returns
- ★ Tariff, rate case requirements and business practice