

NIPPC BPA TC-25 Presentation

April 21, 2023

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Agenda

- Overview of the procurement processes in Oregon, Washington, Utah, and Idaho – Integrated Resource Plans (IRP) and Requests for Proposals (RFP)
 - Generally, the processes are uniform, but each state is slightly different and the default process discussed is Oregon because it generally has the most robust IRP and RFP processes
- RFP requirements for Oregon, Washington, Idaho and Utah investor-owned utilities – Idaho Power Company, Portland General Electric Company (PGE), PacifiCorp, Puget Sound Energy (PSE), and Avista
- RFP schedules and timing
- Issues to think about in BPA TC-25

Integrated Resource Plans: Purpose

- Avoid expensive procurement mistakes before they happen
- Consistency with the long-run public interest
- The primary goal must be the selection of:
 - a portfolio of resources
 - with the best combination of
 - expected costs and
 - associated risks/ uncertainties
 - for the utility and its customers.
- Rules:
 - Oregon Administrative Rule 860-027-0400
 - Washington Administrative Code 480-100-600
 - Utah Code 54-17-301



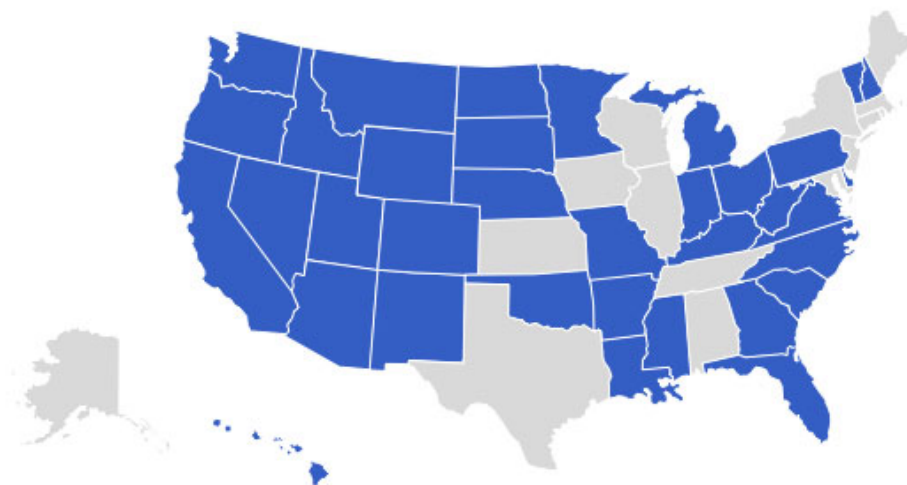
Integrated Resource Plans: What Is An IRP?

- Identify a utility's current and projected resource needs at least cost/least risk
- All resources for meeting a utility's load must be considered and evaluated on a consistent and comparable basis
- Meet a state's renewable portfolio standards and/or emissions reduction statutes
- Planning horizon typically 20 years with an action plan horizon of typically 2-4 years
- An IRP is the first step in the procurement process as it identifies the resource need



Integrated Resource Plans

Utilities Required to File an IRP with their PUC



 Source: Advanced Energy Economy, May 2020

Clean Energy Plans

- Oregon and Washington also require:
 - Clean Energy Implementation Plans and Clean Energy Action Plans (part of Washington Clean Energy Transformation Act, RCW 19.280.020, 19.405.060)
 - Clean Energy Plans (part of Oregon HB 2021, ORS 469A.415)
- CEIP: four-year planning documents by investor owned and consumer owned utilities to meet the clean energy and equity requirements
- CEP: plans for PGE and PacifiCorp to meet clean energy targets concurrent with each IRP

Integrated Resource Plans

Oregon

- Utility must file an IRP within 2 years of its previous IRP's acknowledgment order (OAR 860-027-0400)
- Utility must file an annual update to its IRP
- Oregon Public Utility Commission (OPUC) issues order on IRP acknowledgment

Washington

- Utility must file an IRP every 4 years (RCW 19.280)
- Utility must file an IRP Update every two years
- Washington Utilities and Transportation Commission (WUTC) does not approve IRPs

Idaho

- Utility must file an IRP/Resource Management Report every 2 years (Order No. 22299, Case No. U-1500-165)
- Idaho Public Utilities Commission (IPUC) issues order on IRP acknowledgment regarding the planning process but not the conclusions

Utah

- Utility must file an IRP every 2 years (Utah Code 54-17-301)
- Utah Public Service Commission is not required to acknowledge, accept, or approve the IRP (Utah Admin. Code R746-430-1)

Utility Procurement Options

- RFPs
 - The primary option
- Bilateral Transactions
- Public Utility Regulatory Policies Act
- Green tariffs (commercial, government, industrial customers)



Project Development: One Size Does Not Fit All

- Land and Site Control
- Permitting
- Design and Engineering
- Supply Contracts
- Environmental Studies
- Financing
- Interconnection
- Transmission
- Power Purchase Agreement
- Production Modeling Estimates
- Agency Consultation
- Retail Electric Service

Requests for Proposals: History

- Rules for RFPs in each state are legally binding
- Rules were developed through lengthy administrative proceedings in each state, but are complementary and largely consistent between the states
 - Oregon – OAR 860-089
 - Policies in place since 1991
 - Current rules from a 2-year rulemaking
 - Washington – WAC 480-107
 - Current rules from 2 rulemakings over 4 years
 - Utah – Utah Code 54-17-302, Utah Admin. Code R746-420
 - Idaho – follows Oregon's rules (IPUC Case No. IPC-E-10-03, Order No. 32745)



Requests for Proposals: Purpose

- Rely upon competition
- Allow for diverse ownership
- Complement IRP process
- Establish fair, objective, and transparent procurement processes
- Minimize long-term energy costs and risks
- Not unduly restrict utilities from acquiring new resources and negotiating mutually beneficial terms
- Procure resources to comply with a state's renewable and emissions reduction mandates

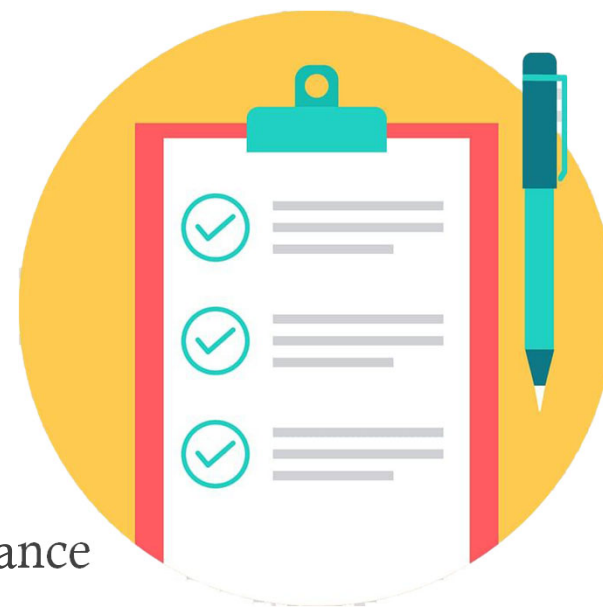


Requests for Proposals: Steps

- Selection of Independent Evaluator (IE)
- Review of draft RFP and scoring and modeling methodologies
- Utility seeks approval of RFP
- After Commission approval, utility revises RFP (if necessary) and issues it to market
- Benchmark bids prepared
- Bids submitted
- Utility develops “shortlists” under review of IE and Commission Staff
- Utility seeks acknowledgement of a “final shortlist” of resources that are least cost/least risk that fulfill the utility’s resource needs
- After acknowledgement, utility negotiates with final shortlist bidders until resources are selected

Requests for Proposals: RFP Requirements

- Elements of an RFP Bid
 - Minimum Bid Requirements
 - Interconnection
 - Transmission
 - Site Control
 - Credit Requirements
 - Labor Requirements (some states)
 - Delivery Points
 - Environmental Permits/Study Compliance
 - Price
 - Technical Specifications
 - Contract Redlines
 - On-Line Date/Commercial Operation Date
 - Bid Fees



Requests for Proposals: Bid Scoring

- Price Score
- Non-Price Score
 - Categories can include contracting progress, contracting viability, project readiness, project deliverability, commercial performance risks, and more
 - Interconnection and transmission requirements can impact non-price score
 - For example, the percentage of long-term transmission product reservation can affect point allocation for the non-price score with PGE

Requests for Proposals: Interconnection Requirements

- PGE – 2021 RFP
 - Initial Shortlist – active generation interconnection request, completed system impact study, and if interconnection involves a 3rd party, then an interconnection request and studies related to the 3rd party
 - Final Shortlist – completed facilities study
 - On-system bids must be studied as NRIS, and off-system bids can be studied as NRIS or ERIS
- PacifiCorp – 2022 RFP
 - A completed interconnection study, which could include a completed fast track interconnection study or PacifiCorp Transmission cluster study, or a signed interconnection agreement
 - Off-system bids must have a completed system impact study
- Idaho Power – 2021 RFP
 - Sufficient information that NRIS has been assessed
 - Prefer pending or signed generator interconnection agreement

Requests for Proposals: Interconnection Requirements

- PSE – 2021 RFP
 - Interconnection process must have been started by September 1, 2021 (bid due date) and bidder must provide queue number
 - Regarding scoring, energy delivery is 25% of a project's score and
 - an executed interconnection agreement and transmission service agreement receives 4 points
 - an executed transmission service agreement, interconnection request submitted, and at least one completed interconnection study or executed interconnection agreement, transmission service request submitted, and at least one completed study receives 3 points
 - executed interconnection agreement and transmission service request submitted or executed transmission service agreement and interconnection request submitted receives 2 points
 - interconnection request submitted and transmission plan submitted receives 1 point
 - No interconnection request submitted and no transmission plan submitted receives 0 points
 - A bonus point is awarded for an executed NRIS interconnection agreement
- Avista – 2022 RFP
 - Bidders must demonstrate project is in the generation interconnection queue and/or transmission service queue for any and all relevant transmission provider(s), including Avista, include the queue number, and include the status of the necessary interconnection feasibility, system impact, and facilities studies required to interconnect
 - If bidder is directly interconnecting to Avista's system, then bidder must interconnect using NRIS
 - Regarding scoring, bidder is deducted 75 points if the feasibility study has not started, deducted 50 points if the system impact study has not started, and deducted 25 points if the facilities study has not started (bidder would be deducted 0 points only if the LGIA is completed)

Requests for Proposals: Schedules



- PGE
 - RFP approved – Dec. 10, 2021
 - Market bids due – Jan. 17, 2022
 - Final Shortlist acknowledged – Aug. 21, 2022
 - PGE intends to finalize negotiations by Mar. 31, 2023
- PacifiCorp
 - RFP Approved – Apr. 28, 2022
 - Market bids due – Mar. 14, 2023
 - Final Shortlist selected – anticipated June 26, 2023
 - Execute Contracts – anticipated Nov. 21, 2023
- PSE
 - RFP Approved – June 14, 2021
 - Market bids due – Sept. 1, 2021
 - Final Shortlist – Nov. 2022
 - Negotiations – beginning in Nov. 2022
- Avista
 - RFP Approved – Feb 18, 2022
 - Market bids due – Mar. 25, 2022
 - Final Shortlist selected and notified – June 10, 2022
 - Negotiations – beginning in Oct. 2022

Federal Interconnection Policies

- Remove impediments to competition in the wholesale bulk power marketplace and bring more efficient, lower cost power to the Nation's electricity consumers.
- Interconnection plays a crucial role in bringing much-needed generation into the market to meet the growing needs of electricity customers.
- Relatively unencumbered entry into the market is necessary for competitive markets.
- Requests for interconnection frequently that result in complex, time consuming technical disputes about the interconnection feasibility, cost and cost responsibility undermine the ability of generators to compete in the market.
- The Federal Energy Regulatory Commission (FERC) requires a serial queue but is proposing to move toward cluster studies

BPA Alternative 1

- FERC NOPR First-ready/First-served Cluster Study Process
- Study Deposits – non-refundable application fee of \$5,000 and refundable study deposit required at Cluster Study, restudy, and Facilities Study of: \$35,000 plus \$1,000 per MW for requests ≥ 20 MW < 80 MW; \$150,000 for requests ≥ 80 MW < 200 MW; or \$250,000 for requests ≥ 200 MW
- Commercial Readiness – at Cluster and/or before Facilities Study; options: executed term sheet (or comparable evidence); selection in resource plan or solicitation process; developed by load-serving entity; developed for sale to commercial, industrial, or large end-use customer; or deposit in lieu
- Transition Process – The current interconnection queue would be processed under the current LGIP and Business Practices; readiness requirements
- Interconnection Information Access – Optional Informational Interconnection Study; Public Interconnection Information
- Affected System Study Process – Accept proposed FERC NOPR language

BPA Alternative 2

- FERC NOPR First-ready/First-served Cluster Study Process with BPA deviations
- Study Deposits – non-refundable application fee of \$5,000 and refundable study deposit good for the Cluster Study, restudy, and Facilities Study of: \$200,000 for requests ≥ 20 MW < 50 MW; \$250,000 for requests ≥ 50 MW < 100 MW; \$300,000 for requests ≥ 100 MW < 250 MW; \$350,000 for requests ≥ 250 MW < 750 MW; or \$400,000 for requests ≥ 750 MW
- Commercial Readiness – deposit or letter of credit in the following amounts: Cluster Study of 2x study amounts; Cluster restudy of 3x study amounts; Facilities Study of 10% of network facilities; and no additional deposit at ESA
- Transition Process –
 - Transitional Serial: Late-stage interconnection customers that have executed a facilities study agreement can continue under the existing serial study process
 - Transitional Cluster: expedited combined system impact and interconnection facilities study, Transitional cluster study to be completed by the transmission provider within 300 days after the deadline for eligibility requirements to be satisfied, and readiness requirements
- Interconnection Information Access – Provide sufficient public information to inform customers about interconnection capability on BPA's system, so that the customer can make informed decisions prior to participating in the cluster study (replacement to Feasibility Study), which would include: Estimated injection capacity in MW at various Points of Interconnection on BPA's System; Estimated Interconnection Cost; and Metrics concerning estimated impact of potential generating facility on BPA's System
- Affected System Study Process – Any Affected System notifications received throughout the year would not be analyzed and studied until BPA performs its Cluster Study. Affected System Interconnection Customers would receive their study results at the conclusion of the Cluster Study or Cluster restudy, when the BPA customers in BPA's interconnection queue receive their study results

BPA Alternative 3

- Another First-ready/First-served approach approved by FERC
- Study Deposits - non-refundable application fee of \$5,000, base deposit of \$25,000, and \$1,000/MW capped at \$250,000 per study
- Commercial Readiness – at Cluster and/or before Facilities Study; options: executed term sheet (or comparable evidence); selection in resource plan or solicitation process; or deposit or letter of credit in the following amounts: Cluster Study of 2x study amounts; Cluster restudy of 3x study amounts; Facilities Study of 10% of network facilities; and no additional deposit at ESA
- Transition Process –
 - Transitional Serial: BPA would allow customers who demonstrate commercial readiness requirements, site control, and are in a late stage in the current interconnection queue (e.g., executed facilities study agreement or facilities study report received) to remain under the current process, so long as the processing of these requests would not unduly delay the start of a new cluster study process; If the delay is too significant, then BPA would process the request under a transitional cluster study process; Late stage interconnection customers will also be given the option to opt into the Transitional Cluster Study process, so long as they meet those commercial readiness requirements
 - Transitional Cluster: BPA would allow non-late stage customers who demonstrate commercial readiness requirements and site control in the current interconnection queue to participate in the transitional cluster study, so long as the processing of these requests would not unduly delay the start of a new cluster study process; The transitional cluster study methodology would be based on the First-ready/First-served Hybrid approach (Cluster studies would be performed based on electrical relevance); If the delay is too significant, then BPA would process the request under the new cluster study process after BPA's customer engagement window closes
- Interconnection Information Access – Perform a multi-phased cluster study approach, with the first phase of the cluster study providing analysis similar to existing Feasibility Study (MISO, PJM, SPP), which would include a preliminary evaluation of: System impact (preliminary identification of thermal, steady state voltage, and circuit breaker short circuit capability limits) and Cost; and Provide public information on estimated injection capacity in MW at various Points of Interconnection on BPA's system

BPA Study Cost Alternatives

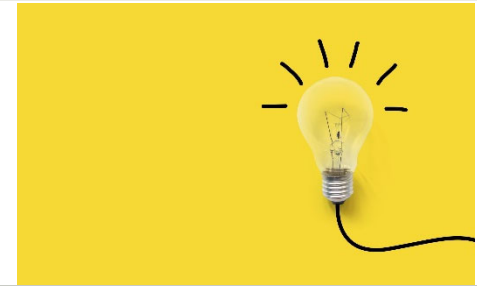
- Alternative 1: 90% of the cluster study costs will be allocated on a pro rata MW cost and the remaining 10% of the costs will be allocated by a number of customers participating in the cluster study.
- Alternative 2: 50% of the cluster study costs will be allocated on a pro rata MW cost and the remaining 50% of the costs will be allocated by a number of customers participating in the cluster study.
- Alternative 3: Allocate 100% of the cluster study costs by pro rata of the MW cost.
- Alternative 4: Allocate 100% of the cluster study costs by the number of customers participating in the cluster study.

BPA Network Cost Alternatives

- Network Cost Allocation
 - Alternative 1: Use the proportional impact method by performing a distribution factor analysis (Power Transfer Distribution Factor or Outage Transfer Distribution Factor per NERC definition) and consider the MW impact of each request. Have an impact study and determine the impact by MW.
 - Alternative 2: Allocate the Network upgrade build costs based on MW to those who are determined to contribute to the reliability violation identified in the study and not de minimis.
 - Alternative 3: Allocate Network upgrade build costs by different factors depending on the build. 1) If there are thermal upgrade builds, the costs will be allocated by MW within the cluster. 2) Voltage network upgrade costs are allocated by the voltage impact of each generator within the cluster. 3) Transient stability network upgrades are allocated on MW in the cluster that cause the instability. 4) Short circuit network upgrades are allocated on the impact of the generating facility within the cluster. 5) If there several constraints, the costs are allocated on a ratio share of the total costs.
- Shared Network Upgrades
 - Alternative 1: Do not require latecomer to fund upgrade if the shared Network upgrade for each cluster
 - Alternative 2: Threshold Distribution Factor of 20% (as opposed to the 5% for new upgrades) to determine whether a later request benefits sufficiently enough from an upgrade that has an in-service date within the past 5 years (from the date of the system impact study identifying the benefit). The subsequent Interconnection Customer will contribute funds to cover its share of the upgrade that was funded by the original funding Interconnection Customer. The amount of the contribution will correlate to the level of use by the contributing Interconnection Customer.
 - Alternative 3: If there is Headroom associated with System Upgrade Facilities and a Developer of any subsequent project interconnects and uses the Headroom before the average years LGIA credits are paid back, such subsequent Developer shall pay the Connecting Transmission Owner or the Developer for this Headroom. BPA would determine the depreciated/amortized value of the system upgrade and then reallocate the costs with impact to the new generator request up to the average years the LGIA credits are paid back.



Some Issues to Consider



- Impact of Eliminating the Informational Study
- Timing Requirements for Studies and the RFP Process
- Commercial Readiness
- Deposits
- Case Study: PacifiCorp Queue Reform

Impact of eliminating the informational study

- Bidders need good cost and timelines information because they are submitting bids they may be bound to
- Some RFPs require interconnection study information to submit a bid
 - PGE: system impact study
 - PacifiCorp: an interconnection study result (or potentially inclusion in a Cluster Study)
 - PSE: application submission
 - Avista: application submission

Timing requirements for studies and the RFP process

- RFPs typically have COD requirements
 - Bidders need to demonstrate that they can meet the proposed COD with an interconnection study. For example, PGE requires completed Facilities Study for final shortlist
- Time from final RFP final shortlist selection/approval to contract execution

Commercial Readiness

- Commercial readiness option of selection in RFP, but typically a completed interconnection study is a requirement to bid into RFPs or a major factor in scoring
- Most developers will not sign a PPA or execute a term sheet before they have binding interconnection cost estimates

Commercial Readiness

- IPP options are term sheet or PPA
 - Practical requirement will be to post deposits in most cases for the first Cluster Study
- Load Serving Entity automatic qualification
 - Does not preclude speculative load serving entity bids
 - Discriminatory

Deposits

- Deposits/payments in lieu of studies to participate in Cluster Study
 - If there is no study with good interconnection cost information, then developers will post money to be able to enter Cluster Study and participate in the RFP, but then there will be numerous projects that drop out of the queue if they are not selected in the RFP
 - If require term sheet or PPA, then large number of projects will drop out and pay penalties
 - Discriminates in favor of LSEs
- Large deposits will cause small projects to drop out or not enter Cluster Study
 - RFPs typically allow projects 3 MW and larger to bid

Case Study: PacifiCorp Queue Reform

- Delays
- Restudies
- Withdrawals

Questions?

