PacifiCorp's 2022 All-Source RFP
Bid Evaluation, Bid Selection, Models and Assumptions

Thursday February 17, 2022
Scoring and Modeling
1:00-2:30 Mountain Time (12:00-1:30 Pacific Time)

Storage Valuation
2:30-3:00 Mountain Time (1:30-2:00 Pacific Time)





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Agenda

Scoring and Modeling Methodology:

- RFP Overview
  - Purpose and Scope
  - Locations
  - Process Timeline
  - Evaluation and Selection Criteria
- Evaluation and Selection Process
  - Proposed Process Steps
  - Due Diligence and Non-Price Scoring
  - Bidder Inputs and Bid Preparation for PLEXOS Price Scoring
  - PLEXOS Price Scoring and Final Shortlist Determination
  - PLEXOS Portfolio Optimization Model Overview
- Questions
- Next Steps

Introduction to Storage Valuation:

- Energy Storage Valuation
- Storage Eligibility and Bid Input Requirements
- PLEXOS Dispatch Example
  - Standalone Storage
- PLEXOS Dispatch Example
  - Collocated Solar with Storage
- Additional Information
  - Storage Overview

Supporting Materials:

- Proposed RFP Schedule
- Non-Price Scorecard
- Equity Questionnaire

Purpose and Scope of 2022AS RFP

- Action item out of PacifiCorp's 2021 Integrated Resource Plan (IRP) established an all-source RFP in 2022 (2022AS RFP), targeting 1,345 megawatts (MW) of new wind and solar resources collocated with 600 MW of new battery energy storage system (BESS) capacity by the end of 2026.
- Bids requiring longer lead time to develop and construct, placing completion beyond the December 31, 2026 deadline, will be accepted for long-lead resources such as pumped storage hydro and nuclear resources.
- Bids must have completed interconnection studies demonstrating Bidder's ability to interconnect and deliver firm energy to PacifiCorp's Transmission system in its east or west balancing authority areas (PACE and PACW, respectively).
- PacifiCorp intends to submit several "benchmark resources" (bid proposals by PacifiCorp or affiliate).
- An independent evaluator (IE), Merrimack, has been selected by the Utah Public Service Commission. Two additional IEs will participate on behalf of the Washington Utilities and Transportation Commission and the Oregon Public Service Commission.

Resource Types

Resource Type	Bid Structure Accepted				
	PPA	BTA	Toll	Benchmark	Service Agreement
Renewable	X	X		X	
Renewable plus battery storage	X	X	X	X	
Non-renewable	X	X			
Standalone battery storage	X	X	X	X	
Pumped hydro storage / nuclear	X	X		X	
Other (demand-side resources)	X	X	X	X	X

- PPA = Power Purchase Agreement.
- BTA = Build-Transfer Agreement.
- Toll = Tolling Agreement for Battery Storage Dispatch Rights.
- Benchmark = PacifiCorp bid proposal for self-owned resource.
- Bids accepted for existing operating facilities subject to certain conditions.
- All renewable capacity, energy, and associated environmental attributes go to PacifiCorp.
- BTA bids MUST directly interconnect to PacifiCorp's system.
- BTA projects must be constructed to PacifiCorp technical specifications.
- No bid size restrictions. Terms of 5-30 years accepted.

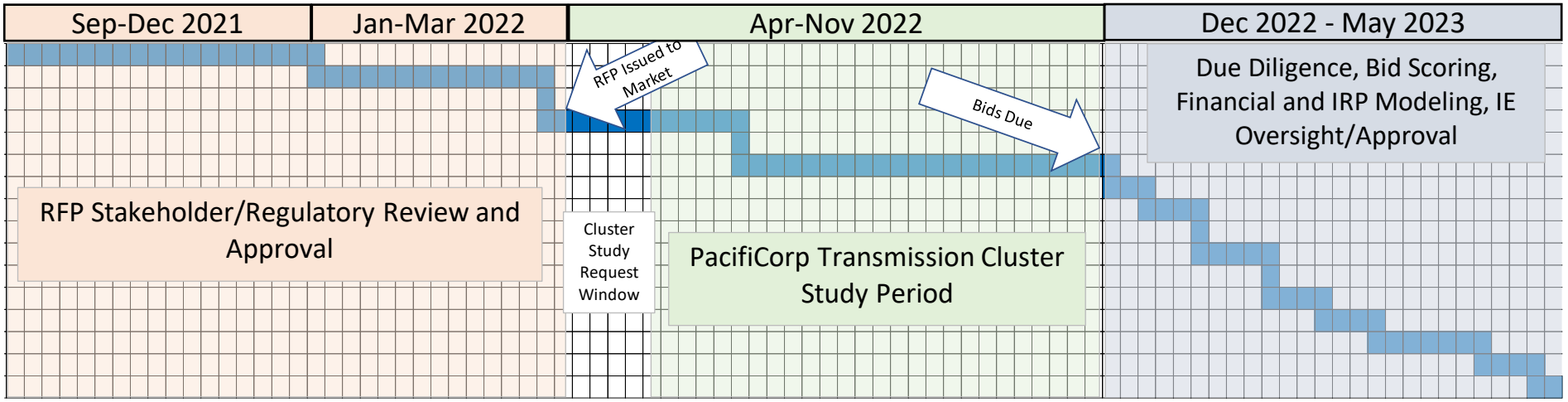
Locations

- PacifiCorp will accept and evaluate bids from across its six-state service territory; however, all bids are required to have completed an interconnection study or signed a generation interconnection agreement:
  - Demonstrating ability to interconnect and deliver ***firm*** energy to PACW or PACE
  - Including interconnection cost estimates (direct assigned and network upgrades)
  - Supporting the proposed commercial operation date.

- The following areas were identified in the 2021 IRP preferred portfolio as potentially advantageous locations to interconnect with PacifiCorp's transmission system due to the expected availability of potential transmission upgrades; however, the 2022 AS RFP is not restricted to these areas. PacifiCorp will accept any bid with an interconnection study or agreement indicating ability to deliver firm energy by the end of 2026:

2021 IRP Proxy Resource	Location	Resource Size (MW)	Expected Online
Portland/N. Coast	NW Oregon	130	Year End 2025
Willamette	NW Oregon	615	Year End 2025
Borah Hemingway	Idaho	600	Year End 2025

2022AS RFP Process Timeline



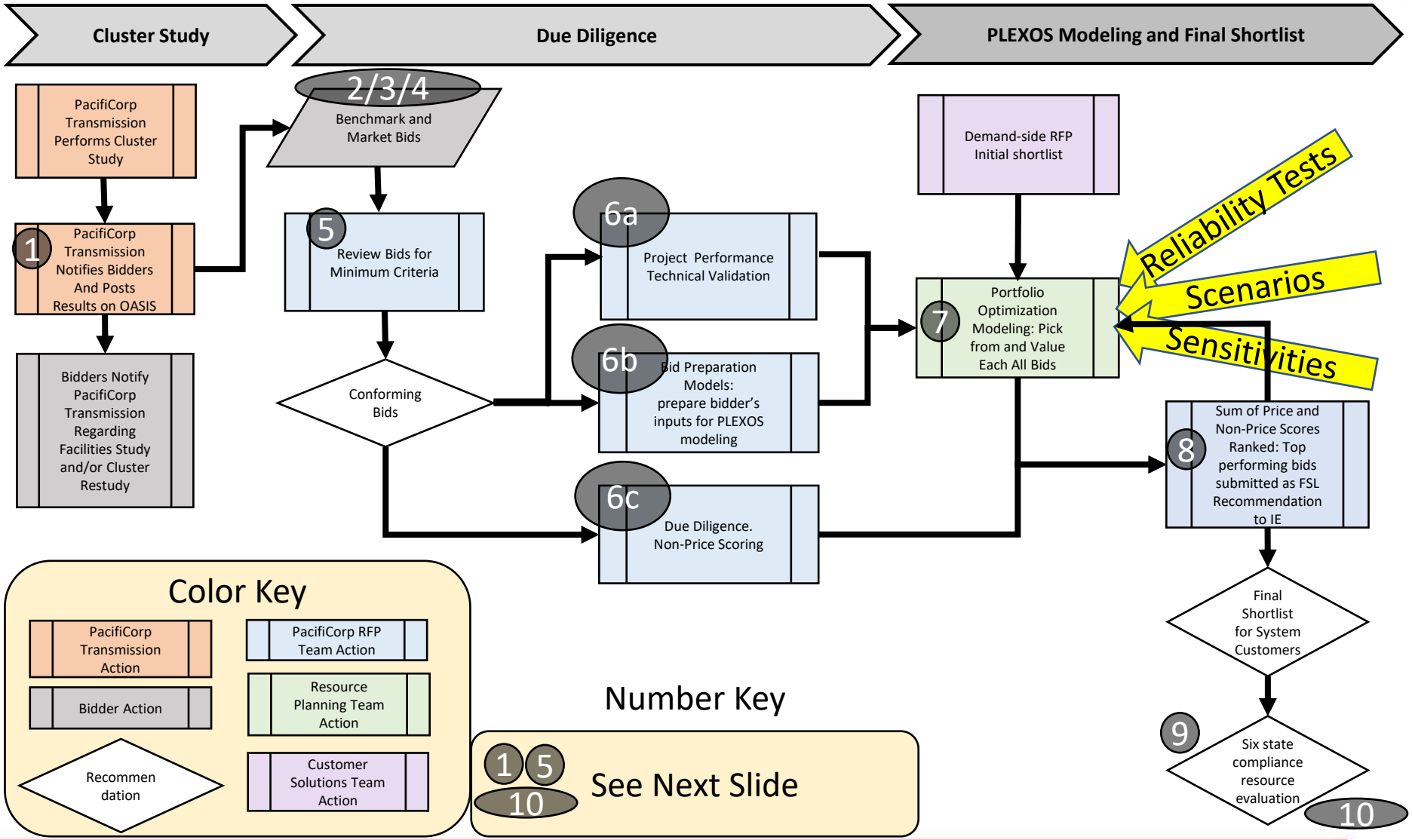
- A second RFP targeting demand-side resources is planned to be released by the end of Q3 2022. Demand-side bids will be evaluated and selected as part of same portfolio optimization (PLEXOS) modeling effort used to determine the 2022AS RFP final shortlist.
- Detailed RFP Schedules are included in the Slides 32-33.

Evaluation and Selection Criteria

Consistent with prior RFPs, PacifiCorp's 2022AS RFP will evaluate proposals based on the following:

- Bid eligibility
  - Conformance with minimum criteria
  - Conformance with 2022AS RFP requirements related to interconnection and transmission
  - Compliance with and verification of major equipment availability defined in the RFP specifications
  - Ability to provide acceptable credit security as determined by Bidder's credit information
- Price Criteria
  - Technical design, feasibility and compliance with technical specifications
  - Cost and benefits to customers
- Non-price Criteria
  - Ability to reach a mutually agreeable contract generally in conformance with the terms of the pro forma contracts as applicable to the individual proposal bid
  - Deliverability (or viability) of the proposal including site control, site studies, permitting, supply chain commitments, construction experience, etc.

2022AS Evaluation and Selection Process - Proposed



Evaluation and Selection Process Steps - Proposed

1. PacifiCorp Transmission posts interconnection cluster study results
2. Benchmark bid deadline for PacifiCorp and affiliate bids
3. Evaluation and scoring of Benchmark bids with IE review
4. Deadline for Market bids: PPA, BTA, Tolls, professional service agreements
5. Eligibility determination: Conformance to minimum requirements in RFP
6. Input review:
    a. Bid Preparation excel file prepares modeling inputs for PLEXOS and aligns bidder production estimates with modeled renewable output and load
    b. Due diligence to determine non-price score (up to 25 points).
    c. Third-party engineer review of resource production estimates
7. Portfolio Modeling: PLEXOS selects portfolio of resources and provides price score inputs (up to 75 points), which are combined with non-price scores (up to 25 points)
8. Compare bid ranking to PLEXOS preferred resources and run additional PLEXOS iterations as needed to determine the final shortlist
9. State compliance analysis
10. Final shortlist notification by PacifiCorp

Non-Price Scoring

Non-Price Score Attribute	Points
Bid Submittal Completeness	5
Contracting Progress and Viability	5
Project Readiness and Deliverability	15
Total Score	**25**

Designed for transparent and objective evaluation:

- Non-price factors converted to price factors where practicable.
- Non-price scores primarily relate to resource characteristics identified in 2021 IRP Action Plan and reflect standard form contracts.
- Criteria is objective and reasonably subject to self-scoring.
- Criteria which seek to identify minimum thresholds bid have been converted into minimum bidder requirements.

- Bid Completeness:
  - Bid submittals are thorough, comprehensive and consistent.
- Contracting Progress and Viability:
  - Ability to contract with the resource on terms and conditions consistent with the bid and the proforma agreements included in the RFP.
- Project Readiness and Deliverability:
  - Development status and maturity.
  - Viability with respect to site control, studies and entitlements (permits etc.), equipment and construction sourcing strategy, and other development and operational characteristics.
  - Likeliness of achieving commercial operation by December 31, 2026 (or 2028 for long lead resources).

Price Scoring – Bidder Inputs

Each Proposal is required to include a completed Appendix C-2, which provides PacifiCorp a "numbers based" overview of the bid offering:

Appendix C-2 Inputs – Required for Bid Submittal	Location
A forecasted p50 first year 8760 generation profile (not including any storage/battery charging or discharging) including annual generation degradation	Tab 2
PPA pricing[1] for each year	Tab 3
Storage/battery pricing and operational requirements: ▪ Rated Storage Capacity (augmented) ▪ Storage Duration ▪ Full Cycle Charges per Day ▪ Calendar Year Degradation ▪ Calendar Year Efficiency Degradation ▪ Storage Ramp Rate	Tab 4
BTA or benchmark pricing	Tab 6
Other bidder supplied information	Tab 10
Not in use	Tabs 5, 7-9

[1]Bid prices are inclusive of direct interconnection costs. PacifiCorp separately includes the network upgrades from the interconnection studies in bid preparation model and price scoring.

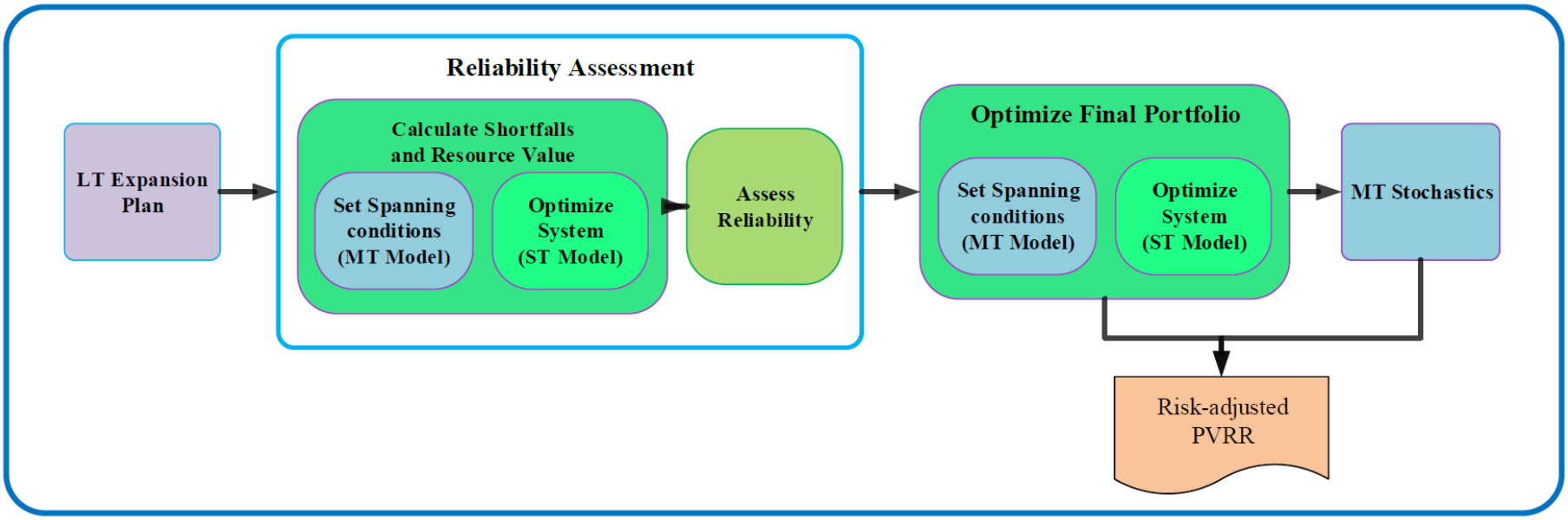
Bid Preparation

- Excel based
- Determines proposal's cost and PLEXOS model inputs
- Aligns bidder's resource profile with the modeled profiles for wind, solar, and load. Total annual net output (8760) does not change.
- Inputs:
  - Bidder's RFP Appendix C-2 spreadsheet tabs
  - PacifiCorp's standard corporate financial assumptions, such as tax rates, inflation, capital structure, weighted average cost of capital, etc.
  - Project costs specific to BTA's and benchmarks only, such as capital, on-going capital, fixed and variable O&M, insurance, state, land lease/royalty costs, etc.
  - Network upgrade costs from PacifiCorp Transmission group's interconnection cluster study (direct costs are included in bidder's pricing)
  - Other inputs, such as integration operating reserve requirements, etc.
- Outputs:
  - Nominal levelized results and real levelized costs
  - Input file for PLEXOS modeling

Price Scoring and Final Shortlist Determination

- PLEXOS Upload of Bid Preparation Excel File Inputs
- PLEXOS Modeling
  - Recommends a least-cost, least-risk portfolio of new resources.
  - Provides a numeric net system benefit (value in dollars) for each bid evaluated, which will be used to establish a price score.
  - Runs sensitivities related to portfolio reliability, cost/risk, state-specific compliance.
- Total Scoring and Ranking
  - PLEXOS-based Price Scores (0-75 points) are added to Non-Price score for each bid (0-25 points) to yield a Total Score (0-100 points) for each bid. Total scores are then used to rank bids.
- Final Shortlist Determination
  - Should the top ranked bids conform with the PLEXOS portfolio of preferred new resources, then the final shortlist will be established.
  - If the bid ranking (inclusive of non-price scores) is inconsistent with the PLEXOS portfolio of preferred new resources, then PacifiCorp in coordination with the IEs may identify bid resources to add or subtract PLEXOS's recommended portfolio. PacifiCorp's Resource Planning team may test different iterations for system stability and reliability until it determines a final recommended portfolio of new resources consistent with both non-price scores and the PLEXOS portfolio optimization model.
  - Following the determination of the final shortlist, in coordination with the IEs, PacifiCorp will check for compliance with state regulations and may run state-specific sensitivities

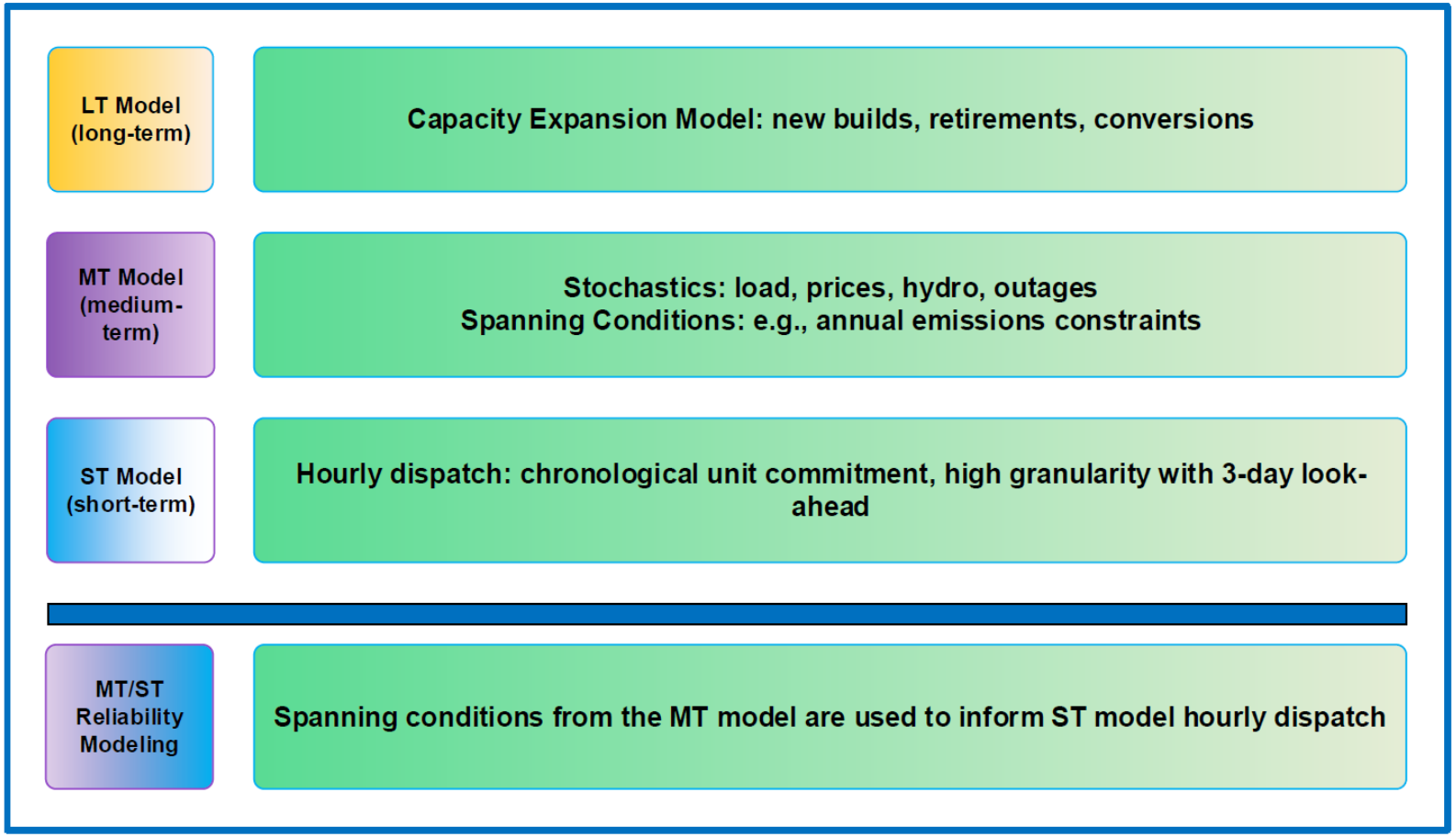
PLEXOS Model



PLEXOS inputs:

- Bid cost and performance (based on internal Bid Preparation Model)
- System load (based on 2021 IRP)
- Existing transmission system topology (based on 2021 IRP)
- Transmission options outside the bids/cluster study for proxy resources
- General financial inputs (*i.e.*, inflation, discount rate, etc. based on 2021 IRP)
- Market prices (to be updated prior to receipt of bids)
- Environmental policy (based on 2021 IRP and updated for any applicable price-policy scenario or renewable energy tax law changes prior to receipt of bids)
- Stochastic parameters (based on the 2021 IRP)
- Other inputs based on best available data

PLEXOS Model - continued



PLEXOS analysis:

- Stochastic-risk modeling – 50 iterations of stochastic variables (i.e., load, hydro, market, and thermal outages)
- Calculate the risk-adjusted PVRR (stochastic mean plus 5% of the 95th percentile forecast of system costs)

PLEXOS outputs:

- Bid selection
- Net benefit for each bid

Questions

Next Steps

- Questions or comments regarding this 2022AS RFP scoring and modeling workshop should be sent to the following mailbox, even if an answer was provided verbally in today's meeting, to ensure all stakeholders receive responses: **2022AS_RFP@PacifiCorp.com**
- 2022AS RFP information and documents will be provided at **www.pacificorp.com**, as information is developed. From PacifiCorp's website main page, go to Suppliers, then RFPs, then 2022AS RFP.

www.pacificorp.com/sup/rfps.html

Introduction to Storage Valuation

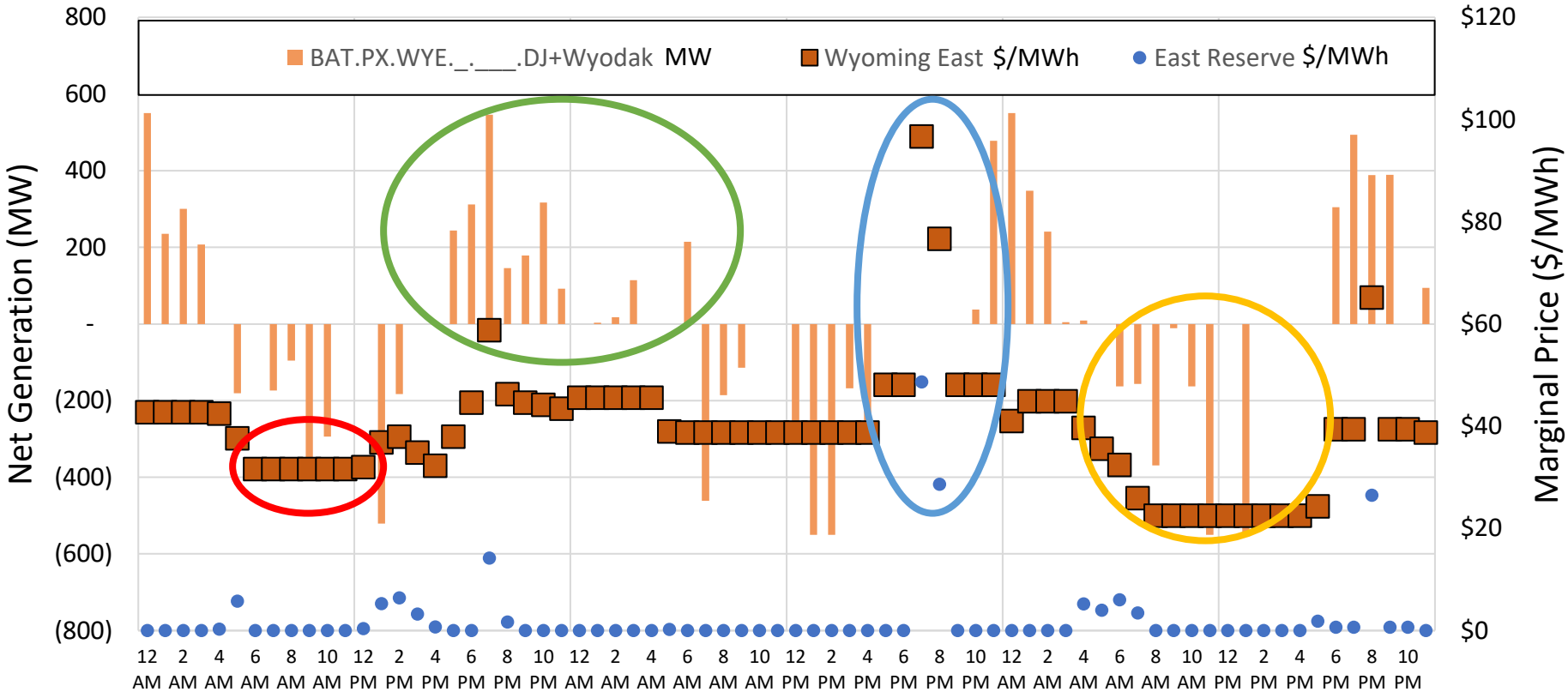
Energy Storage Valuation

- Energy storage evaluated as to “toll” or “call option” to PacifiCorp
  - Pricing: $/kW-month for right to charge and discharge (dispatch) the storage facility
  - Bidders may not charge or discharge the storage facility without PacifiCorp’s approval
  - Bidder must be able to follow four section Automated Generator Control (AGC) signal
- Economic Valuation Model
  - The 2020AS RFP used Electric Power Research Institute (EPRI)’s storage evaluation tool, “StorageVet” to calculate a storage value and prioritize resources prior to the PLEXOS (portfolio optimization) analysis.
    - StorageVet will no longer be used because storage valuation is endogenous to PLEXOS.
    - Instead, PLEXOS will consider, select from and value each of the eligible storage proposals bid into the 2022AS RFP.
  - The new portfolio optimization modeling tool, PLEXOS, has more functionality than the prior portfolio modeling tool used for the 2020AS RFP.
    - PLEXOS will evaluate all bids including batteries/storage
    - PLEXOS will consider the same parameters modeled by StorageVet
    - PLEXOS’s additional functionality allows it to analyze the stochastic relationship and value of storage resources within PacifiCorp’s existing portfolio of generating resources and associated load.
    - Using PLEXOS to analyze, select and value storage resources directly will reduce the time from bid submission to FSL to approximately [4] months.

Eligibility and Bid Input Requirements for Energy Storage Proposals

Battery Characteristic	PacifiCorp Specification
Collocated BESS	Collocated battery energy storage systems (BESS) must be AC coupled. PacifiCorp understands most bidders will specify that battery is charged during first five years from collocated renewable generation due to federal tax incentive recapture risk. PacifiCorp requests collocated batteries are designed with ability to grid charge after recapture period.
Rated Capacity	Must be consistent with interconnection study, or else have documentation from PacifiCorp Transmission that no material modification is required. Collocated bids must be 50% or greater than generating resource with same term as generating resource. 50%, 75%, 100% bids accepted.
Power Capacity Rating (instantaneous capacity)	Lithium-based battery bids must assume and price augmentation to maintain capacity and duration throughout contract life. Other technologies must maintain original capability of proposed storage resource.
Duration	Minimum of four (4) hours duration accepted.
Number of Full Charges	Bidder to specify number of allowable full charges per day and per year
Calendar Year Storage Degradation	Bidder to specify percentage of charge lost annually over the term of the contract, to be consistent with bid augmentation strategy.
Round Trip Efficiency	Bidder to specify the ratio of energy into the storage facility (charge) versus energy out of the storage facility (discharge), which must be maintained over the term of the contract.
Storage Ramp Rate	Bidder to specify minimum and maximum time (in milliseconds) from charge or discharge notice to maximum power capacity rating of charge or discharge. Storage facility must be capable of following a four (4) second signal and ramping at a rate no less than, nor greater than, a specified ramp rate provided by PacifiCorp Energy Supply Management (ESM) group.

Storage Dispatch Example: Stand-alone Storage



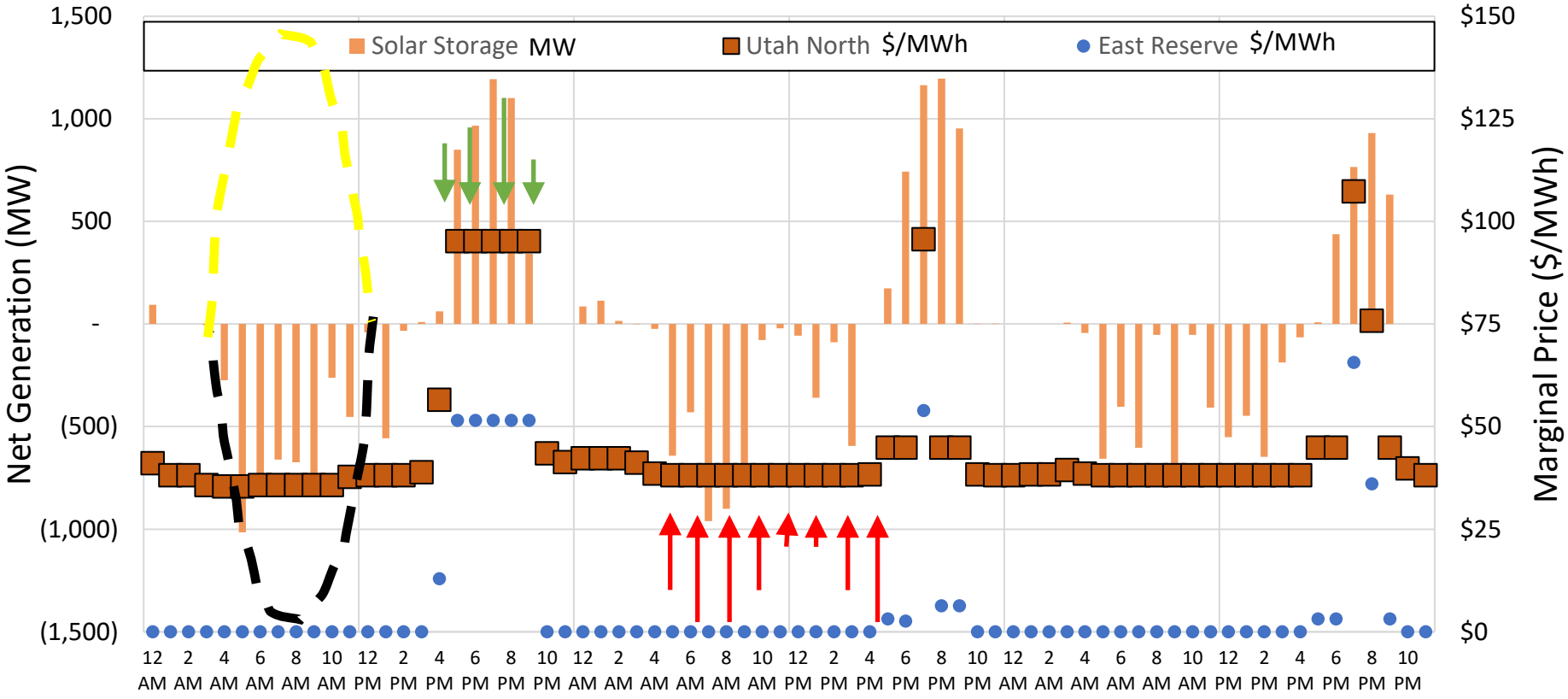
Details on the circles in the above figure are provided on the next slide.

Stand-alone Storage Dispatch Characteristics

PLEXOS portfolio optimization tools have robust functionality which allow for stochastic valuation of storage bids.

- Discharge constraints:
  - Power Capacity Rating – maximum hourly discharge (550 MW at 7PM)
  - Storage Duration – four hours at maximum output, or the equivalent spread over more hours.
- Charge constraints:
  - Power Capacity Rating – maximum hourly charge (550 MW at 11AM)
  - Storage Duration and Efficiency Losses – Filling to four hours of available discharge takes additional time, due to efficiency losses. At an efficiency of 85%, the minimum time to fill the battery is:
    - 4 hours of discharge / 85% roundtrip efficiency = 4.7 hours of charging
- Discharge optimization:
  - PLEXOS identifies the highest value opportunities for discharging. Supply from discharging decreases reliance on high-cost resources, and thus decreases marginal costs.
  - The optimized charging schedule (in MW) results in flat marginal costs across the charge period unless:
    - Discharging capacity is maxed out.
    - Co-optimization of energy and reserves can result in storage capacity designated as reserves, and higher marginal energy prices.
  - Generically, if marginal costs were not flat, it would be more cost-effective to move charging from a high-cost period to a low-cost period
- Charge optimization:
  - PLEXOS identifies the lowest cost opportunities for charging. Demand from charging increases reliance on the next higher resource in the stack, and thus increases marginal costs
  - The optimized charging schedule (in MW) results in flat marginal costs across the charge period unless:
    - Charging capacity is maxed out.
    - Reserve costs impact charging: Charging capacity counts as additional reserves supply up to 2x the power capacity (stopping charging plus starting discharging).

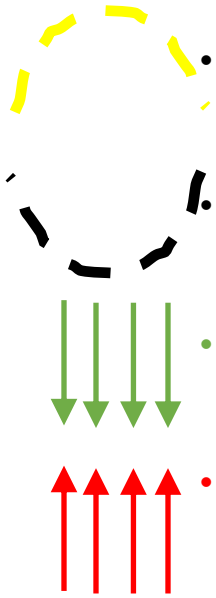
Storage Dispatch Example: Combined Solar and Storage



Details on the figure are provided on the next slide.

Key Combined Solar and Storage Dispatch Characteristics

PLEXOS portfolio optimization tools have robust functionality which allow for stochastic valuation of storage bids.

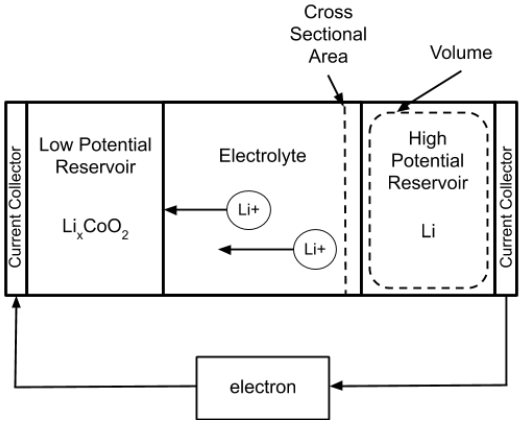


- Discharge constraints:
  - Maximum hourly discharge of combined solar and storage output is capped:
    - The sum of Storage discharge and reserves cannot exceed the maximum minus collocated solar output.
- **Charge constraints**:
  - To ensure investment tax credit requirements are met, charging is restricted to the available solar output
- Discharge optimization:
  - PLEXOS identifies the highest value opportunities for discharging. Supply from discharging decreases reliance on high-cost resources, and thus decreases marginal costs.
- Charge optimization:
  - PLEXOS identifies the lowest cost opportunities for charging. Demand from charging increases reliance on the next higher resource in the stack, and thus increases marginal costs

Additional Information: Storage Technology Overview

Lithium Batteries

A lithium-chemistry battery (Li) is a type of rechargeable battery in which lithium ions move from the negative electrode through an electrolyte to the positive electrode during discharge, and back when charging.

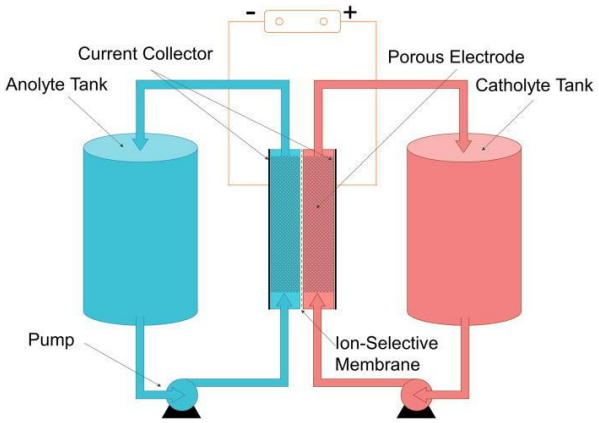


- Pros/Benefits:
  - High Energy Density. This battery technology can store more electrical energy in a smaller footprint than other battery types
  - Quicker Charging Times.
  - Relatively Long Life. Operated within design parameters, Li batteries can have a 10 -12 year life expectancy.
  - Slower Capacity Loss (minimal self discharge).
- Cons/Disadvantages:
  - Protection Required. Protection from “overcharging” and over “discharging” required.
  - Controlled Environment Required. The quest for Li batteries with higher capacity and high discharge rates has further enhanced the ventilation/HVAC requirements given heat generated and the potential for fire.
  - Ageing. Charge hold duration is affected by age and how the battery has been cycled.
  - Maturing Technology. Industry battery chemistries are in flux and with not current industry standard.

Flow Batteries

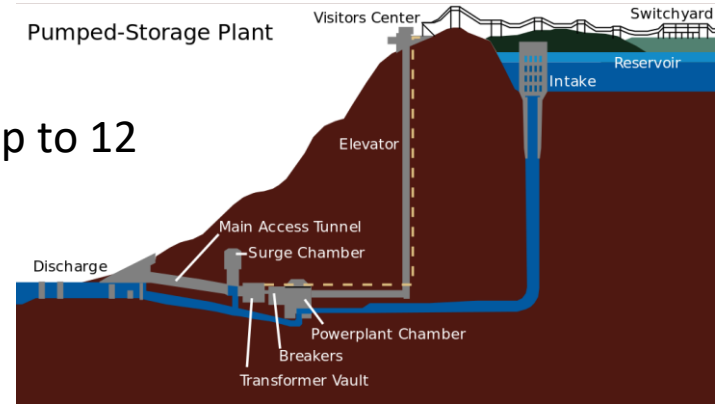
A flow battery is a type of electrochemical cell where chemical energy is provided by two chemical components dissolved in liquids that are pumped through the system on separate sides of a membrane. Ion exchange (accompanied by flow of electric current) occurs through the membrane while both liquids circulate in their own respective space.

- Pros/Benefits:
  - Longer Cost-Effective Duration. Durations of up to 12 hours.
  - Increase Safety. No controlled environments for the battery facilities required.
  - Quicker Response Times. No battery cell equalization required.
  - Long Life. Flow batteries can operate forever because the electrolyte either does not wear out or can be replenished as part of general operations and maintenance.
- Cons/Disadvantages:
  - Less Efficient. Li battery are +85% efficient; flow batteries ~75% efficient (e.g. round-trip efficiency losses between charge and discharge).
  - Less Dense/Requires Larger Footprint than Li.
  - Very Immature Technology. Limited vendors in flow battery space; field testing underway (including NV Energy)



Pumped Storage Hydro

Pumped-storage hydroelectricity (PSH) is a type of hydroelectric energy storage used by electric power systems for load balancing. The method stores energy in the form of gravitational potential energy of water, pumped from a lower elevation reservoir to a higher elevation.



- Pros/Benefits:
  - Longer Cost-Effective Duration. Durations of up to 12 hours.
  - Mature Technology.
  - Long Life.
- Cons/Disadvantages:
  - Longer Cost-Effective Duration. Durations of up to 12
  - Rarely Located Near Load. Often in remote locations, required new electric transmission can further dampen economics
  - Expensive.
  - Environmental Considerations.
  - Less Efficiency the Li Technology.

Supporting Materials

Proposed RFP Schedule

Subject to Change

Milestone	Date
2022AS RFP Issued to market	04/12/2022
Bidder Workshop	04/22/2022
PacifiCorp OATT - Cluster Study Request Window closes (deadline)	05/16/2022
Notice of Intent to Bid due	06/16/2022
Demand-side targeted RFP Issued to Market	Q3 2022
Cluster study results posted to OASIS / bidders notified by PacifiCorp Transmission	11/12/2022
Benchmark bids due	11/21/2022
RFP bids due from market	01/16/2023
PacifiCorp and IE review of bid eligibility screening complete	02/22/2023
PacifiCorp completes bid preparation and provides supply-side and demand-side bid inputs to PLEXOS portfolio optimization modeling team	02/23/2023
Capacity factor and BESS evaluation of bids completed	02/23/2023
PacifiCorp completes due diligence and non-price scoring	03/15/2023
PLEXOS generates price score and list of preferred new resources	04/14/2023
PacifiCorp and IE review of FSL recommendation complete	05/05/2023
Execute Agreements	11/21/2023
Bid validity date	11/21/2023
Winning Bid Guaranteed COD	12/31/2026

Non-Price Scoring – Bid Submittal Completeness

Non-Price Factor

I. Bid Submittal Completeness - Bidder completed each of following items accurately and in a manner consistent with the RFP requirements.	Response	Bid Score
· Bid meets all minimum criteria and is eligibile bid.	Yes	Minimum criteria met
· Appendix A-2 Interconnection study, agreements and any required confirmation of material modification, as applicable. Off-system bids have provided a system impact or facilities study with 3rd party transmission provider and demonstrated transmission availability to a POD on PacifiCorp's transmission system.	Yes	Minimum criteria met
· Appendix A-3 Permit Matrix	Yes	Minimum criteria met
· Appendix A-5 Project One-Line Drawing and Layout	Yes	Minimum criteria met
· Appendix A-6 Division of Responsibility (BTA)	Yes	Minimum criteria met
· Appendix A-7 Conformance with Owners Standards and Specifications (BTA)	Yes	Minimum criteria met
· Appendix A-9 Product Data-Equipment Supply Matrix	Yes	Minimum criteria met
· Appendix A-10 Plant Performance Guarantee/Warranties (BTA)	Yes	Minimum criteria met
· Appendix B-1 Notice of Intent to Bid	Yes	1
· Appendix B-2 Signed Cover Letter without modification	Yes	Minimum criteria met
· Appendix B-2 Bid Proposal in compliance with the proposal format and requirements outlined in Appendix B-2	Yes	1
· Appendix C-2 Bid Summary and Pricing Input Sheet provided without modification, including milestong payment schedule for BTAs	Yes	Minimum criteria met
· Appendix C-3 3rd Party Energy Performance Report. For wind submittals, one (1) an independent third-party or in-house wind assessment analysis/report supported by a minimum of (a) two years of wind data for BTA proposals from the proposed site or (b) one year of wind data for PPA proposals from the proposed site. Wind data shall support the capacity factor. For solar proposals, one (1) a PVSyst report, including the complete set of modeling input files in Microsoft Excel format that PacifiCorp can use to replicate the performance using PVSyst, PacifiCorp's preferred solar performance model, and two years of solar irradiance satellite data provided by Solargis, SolarAnyway or on-site met data.	Yes	Minimum criteria met
· Appendix D Bidder's Credit Information including a clear description of ownership and/or corporate structure, a letter from the entity providing financial assurances stating that it will provide financial assurances on behalf of the bidder	Yes	Minimum criteria met
· Appendix G-1 Confidentiality Agreement	Yes	Minimum criteria met
· Appendix J PacifiCorp Transmission Waiver	Yes	Minimum criteria met
· Appendix K General Services Contract-O&M Services (BTA)	Yes	Minimum criteria met
· Appendix P - Equity Questionnaire	Yes	1
· Site Control Documentation	Yes	Minimum criteria met
· Completed Critical Issues Analysis Report completed by 3rd party	Yes	1
· Completed permits (or applications) including Conditional Use Permit and Conditional Use Permit, evidence of appropriate zoning, or other material permits as required (BTA)	Yes	Minimum criteria met
· Geotechnical report (BTA)	Yes	Minimum criteria met
· Environmental studies (endangered species, wetlands, Phase I ESA) (BTA)	Yes	Minimum criteria met
· Cultural studies (BTA)	Yes	Minimum criteria met
· Evidence of wire transfer provided prior to bid deadline in the correct amount for the correct number of bids	Yes	Minimum criteria met

Non-Price Scoring - Contracting Progress and Viability

II. Contracting Progress and Viability	Response	Bid Score
· A contract redline was provided including redline of Appendices.	Yes	1
· A contract issues list was provided identifying bidder's top priority commercial terms.	Yes	1
· Bidder redlines and issues lists are based on a lawyer's review of the proforma contract documents.	Yes	1
· Bidder has the legal authority to enter into a contract for the output of the facility.	Yes	Minimum criteria met
· Bidder provided fixed and firm pricing for a contract term length between 5 and 30 years.	Yes	1
· Bidder has offered a dispatchable product.	Yes	1
· Bidder agrees to PacifiCorp's ability to issue dispatch notices as defined in contract proforma. Bidder will follow Automated Generation Control (AGC) signal and follow a four (4) second signal.	Yes	Minimum criteria met
· Bidder has demonstrated it can meet the credit security requirements for the resource proposed.	Yes	Minimum criteria met
· Binding and exclusive site control documentation matches legal site description included in contract redline. Seller will have site control and site access site by contract execution date.	Yes	1
· Contract redlines are consistent with Appendix C-2 inputs (product, price, term, 8760, capacity factor, depreciation, degradation, storage specifications, BTA milestone payments, etc).	Yes	1
· BTA bids include list of assets to be transferred to PacifiCorp. Project documents with same legal entity as bidder. Studies, critical issues analysis and material assets may be assigned and relied upon by PacifiCorp.	Yes	1
· Wind bidder will agree to proforma contract requirement to apply for Eagle Take Permit.	Yes	Minimum criteria met
· Oregon-sited resources will agree to proforma contract term which requires bidder to provide attestation required in HB2021.	Yes	Minimum criteria met
· Seller will agree to pro forma contract term to comply with Prohibited Vendors provisions.	Yes	Minimum criteria met
· Seller will agree to pro forma contract term to comply with OFAC Sanctions Lists and Government-Owned Enterprises provisions.	Yes	1
· Seller will agree to pro forma contract term which requires contractor diversity tracking and reporting.	Yes	1

Non-Price Scoring - Project Readiness and Deliverability

III. Project Readiness and Deliverability	Response	Bid Score
· Schedule and supporting documentation include development and construction milestones (major equipment procurement and delivery on site, EPC execution and notice to proceed, interconnection backfeed, mechanical completion) which support the commercial operations date.	Yes	Minimum criteria met
· Bidder has demonstrated conformance with Appendix A-7 Owners Standards and Specifications	Yes	1
· BTA assets (permits, leases, interconnection agreements, other contracts, resource assessments etc) support commercial operation date, 8760 resource estimates and net capacity factor through operating life.	Yes	1
· Bidder has experience with (developing, constructing and/or operating) the same technology as being proposed.	Yes	1
· Bidder has sufficient development experience (prior to construction) for size of project proposed (has completed at least one project 50% of proposed size).	Yes	1
· Bidder's Financing Plan demonstrates ability to finance project construction and ongoing operations.	Yes	1
· Bidder has executed and recorded lease or warranty deed of ownership.	Yes	1
· Required easements have been identified including project site, site access and any gentie line up to point of interconnection.	Yes	1
· Required easements have been secured including project site, site access and any gentie line up to point of interconnection.	Yes	1
· Bidder has signed LGIA which demonstrates ability to interconnect before proposed commercial operations date.	Yes	1
· Met stations have been installed - and are functioning - on site.	Yes	1
· 50% Engineering designs are complete.	Yes	1
· Proposed equipment is consistent with bid narrative, Appendix C-3 (8760), Appendix A-7 Technical Specifications and Appendix A-9.	Yes	1
· Bidder's Supply chain and contracting plans demonstrate ability to secure materials and complete construction, including securing safe harbor equipment, if applicable. Bidder has demonstrated a process to adequately acquire or purchase major equipment (i.e., wind turbines, solar photovoltaic panels, inverters, tracking system, generator step-up transformers, batteries) and other critical long lead time equipment.	Yes	1
· 1) Major equipment has been procured and 2) Engineering Procurement and Construction (EPC) and/or other balance-of-plant construcution contracts agreement have been signed.	Yes	1
· Critical Issues Analalysis has not identified any fatal flaw that would prevent resource from reaching commercial operations by the deadline.	Yes	1
· Wetlands are not present, or mitigation plans are in place.	Yes	1
· Endangered species are not present on site or mitigations plans are in place.	Yes	1
· One or more year of avian studies are available for proposed wind resources.	Yes	1
· Cultural resources are not present, or mitigation plans are in place.	Yes	1
· Site is zoned for proposed use.	Yes	1
· Permitting is complete (i.e. project is shovel ready).	Yes	1
· Proposal meets PacifiCorp's supplier diversity goals: https://www.pacificorp.com/suppliers/supplier-diversity.html	Yes	1
· If located in California, proposal is a renewable generating facility located in a community afflicted with poverty or high unemployment or that suffers from high emission levels according to California Office of Environmental Health Hazard Assessment (OEHHA)'s California Communities Environmental Health Screening Tool: CalEnviroScreen 4.0. (https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40)	Yes	1
· If located in Washington state, facility is located in a highly impacted community or in proximity to a vulnerable population according to Washington State Department of Health's Environmental Public Health Data website and Environmental Health Disparities V 1.1 tool (https://fortress.wa.gov/doh/wtn/WTNIBL/)	Yes	1
· If located in Oregon state, facility meets HB2021 requirements including but not limited to apprenticeship and workforce requirements	Yes	1
· Proposal is a renewable generating facility or non-emitting resource.	Yes	1

Proposed Equity Questionnaire

Population characteristics of community where facility is proposed		
To be completed based on census track in which facility is located		
Race and ethnicity		
White (%)		% of population white alone
Black or African American (%)		% of population Black or African American alone
Amercian Indian and Alaska Native (%)		% of population American Indian and Alaska Native alone
Asian (%)		% of population Asian alone
Native Hawaiian and Other Pacific Islander (%)		% of population Native Hawaiian and Other Pacific Islander alo
Two or More Races (%)		% of population two or more races
Hispanic or Latino (%)		% of population Hispanic or Latino
Population 25 years and over with no high school diploma		% of population 25 years and older
Unaffordable housing		% of households (with and without mortgages and rentals) spending greater than 30% of income on housing
Population five years and older that speak English less than "very well" and "not at all"		% of people that speak English at home (5 years old or older)
Population with income 185% below poverty		% of total population with income 185% below poverty
Population 16 years and older unemployed		% of population 16 years or older

Facility Job Creation	Construction	Ongoing Operations	
Total hires (number of jobs)			
Will there be an apprenticeship or training program?			
Projected local hires from nearby communities (number of jobs)			
Duration of work (months of construction / years of operation)			Specificy unit (hours, days, or months)
Estimate projected economic benefits to the local economy (direct and indirect) (annual $ from payroll taxes, property taxes, other taxes, services)			
Minority-owned businesses (percentage of contractors and subcontractors)			
Woman-owned businesses (percentage of contractors and subcontractors)			
Service-disabled veteran-owned businesses (percentage of contractors and subcontractors)			
LGBT firms (percentage of contractors and subcontractors)			

Local Impacts		
Is Facility a distributed energy resource?		yes/no
Duration of construction		months
Source of water used during construction		
Source of water used during operations		
Is water a permitted or public source		public/private
Site disturbance - amount of disturbed soil during construction		acres
Tree and pollinator seed re-planting after construction		acres

	Estimated Amount During	
Pollution Burden	Construction	Ongoing Operations
Environmental Exposures		
Annual amount of greenhouse gas emissions		
Diesel Emission Levels of NOx (tons per year)		
Particulate Matter 2.5 (PM2.5) (tons per year)		
Will the facility be required by the EPA to have a Risk Management Plan (Y/N)		
Estimated number of vehicles on site (daily average)		
Environmental Effects		
Will the facility have a transportation plan? (Y/N)		
Will the facility require a hazardous waste permit (Y/N)		
Will the facility have a dust mitigation plan (Y/N)		
Will the facility require a wastewater discharge permit (Y/N)		
Water use (gallons per year)		
Will the facility request an incidental take permit (Y/N)		

- Used after determination of final shortlist to evaluate regulatory compliance across six-states (Washington CETA).

Proposed Equity Questionnaire – Washington Supplement

Community Benefit Indicator Questions	Yes/No	Comment:
Will this resource include an apprenticeship or job training?		
Will this resource increase the amount of renewable energy on PacifiCorp's system?		
Will this resource result in CO2 emissions?		
Will this resource enable grid investments or other infrastructure which result in energy resiliency or energy security?		
Will this resource provide energy benefits to vulnerable populations and highly impacted communities?		
Will this resource provide non-energy benefits to vulnerable populations and highly impacted communities?		
Will this resource reduce the energy burden of vulnerable populations and highly impacted communities?		

Washington State Department of Health - Environmental Public Health Data		
Facilities located in Washington-state must provide scores for each of the following criteria for the proposed location using WA Department of Health website	Rank	
Environmental Health Disparities V 1.1		https://fortress.wa.gov/doh/wtn/WTNIBL/
Environmental Exposures		https://fortress.wa.gov/doh/wtn/WTNIBL/
NOx-Diesel Emissions (Annual Tons/Km2)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Ozone Concentration		https://fortress.wa.gov/doh/wtn/WTNIBL/
PM2.5 Concentration		https://fortress.wa.gov/doh/wtn/WTNIBL/
Populations near Heavy Traffic Roadways		https://fortress.wa.gov/doh/wtn/WTNIBL/
Toxic Releases from Facilities (RSEI Model)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Environmental Effects		https://fortress.wa.gov/doh/wtn/WTNIBL/
Lead Risk From Housing (%)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Proximity to Hazardous Waste Treatment Storage and Disposal Facilities (TSDFs)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Proximity to National Priorities List Facilities (Superfund Sites)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Proximity to Risk Management Plan (RMP) Facililties		https://fortress.wa.gov/doh/wtn/WTNIBL/
Wastewater Discharge		https://fortress.wa.gov/doh/wtn/WTNIBL/
Socioeconomic Factors		https://fortress.wa.gov/doh/wtn/WTNIBL/
ACS:Limited English (LEP) (%)		https://fortress.wa.gov/doh/wtn/WTNIBL/
No High School Diploma (%)		https://fortress.wa.gov/doh/wtn/WTNIBL/
People of Color (Race/Ethnicity)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Population Living in Poverty <=185% of Federal Poverty Level (%)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Transportation Expense		https://fortress.wa.gov/doh/wtn/WTNIBL/
Unaffordable Housing (>30% of Income)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Unemployed (%)		https://fortress.wa.gov/doh/wtn/WTNIBL/
Sensitive Populations		https://fortress.wa.gov/doh/wtn/WTNIBL/
Death from Cardiovascular Disease		https://fortress.wa.gov/doh/wtn/WTNIBL/
Low Birth Weight - Combined (%)		https://fortress.wa.gov/doh/wtn/WTNIBL/

- Requested of Washington -located resources

Proposed Equity Questionnaire – California Supplement

Clean Energy Bill Questions	Yes/No	Comment:
Is your facility located in a community afflicted with poverty or high unemployment or that suffers from high emission levels?		
California		
Facilities located in California must provide the CalEnviroScreen 3.0 Results score for the proposed location using the California Office of Environmental Health Hazard Assessment website	Rank	
Overall Percentiles		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
CalEnviroScreen 4.0 Percentile		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Pollution Burden Percentile		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Population Characteristics Percentile		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Exposures		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Ozone		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Particulate Matter 2.5		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Diesel Particulate Matter		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Toxic Releases		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Traffic		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Pesticides		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Drinking Water		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Lead from Housing		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Environmental Effects		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Cleanup Sites		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Groundwater Threats		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Hazardous Waste		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Impaired Waters		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Solid Waste		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Sensitive Populations		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Asthma		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Low Birth Weight		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Cardiovascular Disease		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Socioeconomic Factors		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Education		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Linguistic Isolation		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Poverty		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Unemployment		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40
Housing Burden		https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40

- Requested of California-located resources

Question & Comments