



PacifiCorp AS2020 RFP – Closing Report Workshop

Oregon Public Utilities
Commission

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Bringing Ingenuity to Life
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PA's opinion: the RFP process was conducted in a fair and reasonable manner

RFP rules, though imperfect, were applied fairly and impartially

PA's opinion is based on:

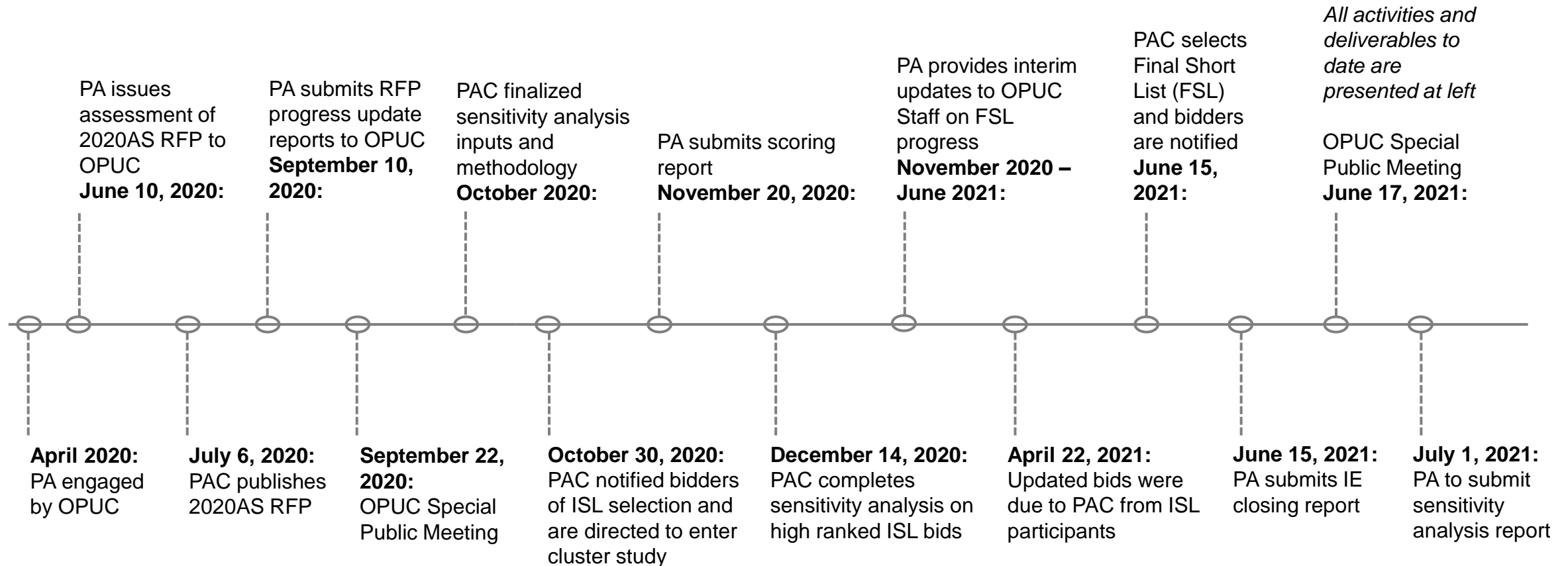
- **Review of draft RFP, evaluation process and bid scoring model**
- **Monitoring of PacifiCorp communications with bidders**
- **High-level analysis of IRP model portfolios**
- **Identification of the nature and justification of PacifiCorp's evaluative decisions and use of discretion**
- **Testing the reasonableness of PacifiCorp's preliminary and final bid selections relative to the IRP goals**
- Independent scoring of all Build Transfer Agreement (BTA) bids and a sample of others
 - Identification to potential scoring model issues
 - Specific comparison of BTA and PPA modeling and scores
- Examination and mitigation of treatment of bids without executed Large Generator Interconnection Agreements (LGIA)
- Assistance to OPUC staff in designing sensitivity cases (detailed results review yet to come)
- Consideration of reasonableness of assessing likely completion based on high-level interconnection timelines
- Review of post-cluster study best and final pricing including interconnection costs

The RFP process will not fulfil all the near-time needs or goals of PAC's resource needs, nor must it: a single procurement is not the same as a broad planning process.

Most (but not all) of the complications of the RFP have to do with its relation to PacifiCorp Transmission's first-ever Cluster Study

1. All interconnections in the same Transmission Cluster Area received the same timing estimate from PacTrans
2. Tightened limits on bid ranking were applied in an effort to control interconnection costs – based on an insufficient estimate of available capacity and expansion costs
3. Suitability of RFP to long-lead-time resources
4. Degree of risk assignment to bidders through contract structure
5. Price increase from ISL to FSL varied across bidders
6. Technical evaluation of bid technology and operational assumptions
7. Evaluating owned vs. contracted resources, values, benefits, and tradeoffs

Summary of major RFP milestones



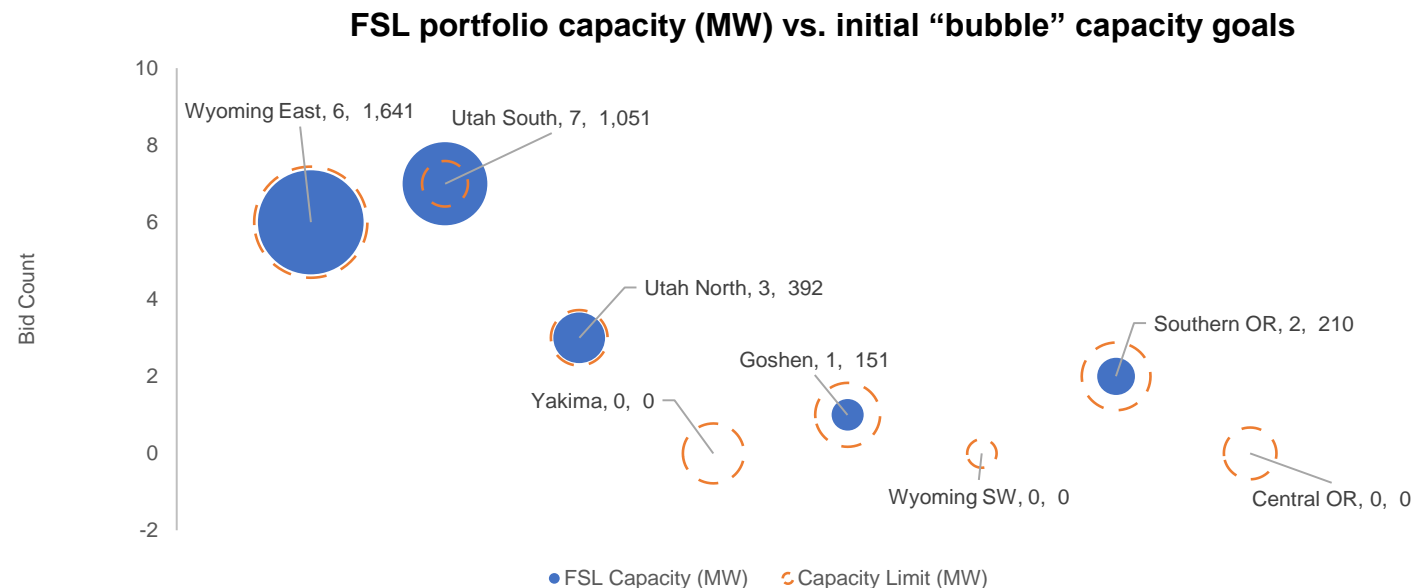
RFP evaluation applied successive filters to the bid pool

- Bid filters included the minimum eligibility criteria conformance, bid economics, geographic and technological comparison, and ultimately system adequacy and optimization
- The schedules for interconnection resulting from the interconnection cluster study resulted in the elimination of all but one cluster study RFP participant
- PAC requested that all FSL-eligible bidders provide updated pricing and confirmation of other operational and technical project attributes in advance of FSL selection.
 - Bid pricing and economics caused a further step up in costs across the remaining eligible bids
- PAC's IRP models selected optimal portfolios of FSL bids for several different price / demand scenarios

| | Bids | Bidders |
|----------------------------------|-----------|-----------|
| ISL Selected | 37 | 21 |
| Less: Cluster Study Eliminations | (10) | (10) |
| FSL Eligible | 27 | 16 |
| Less: Non-Selected Bids | (8) | (8) |
| FSL Selected | 19 | 12 |

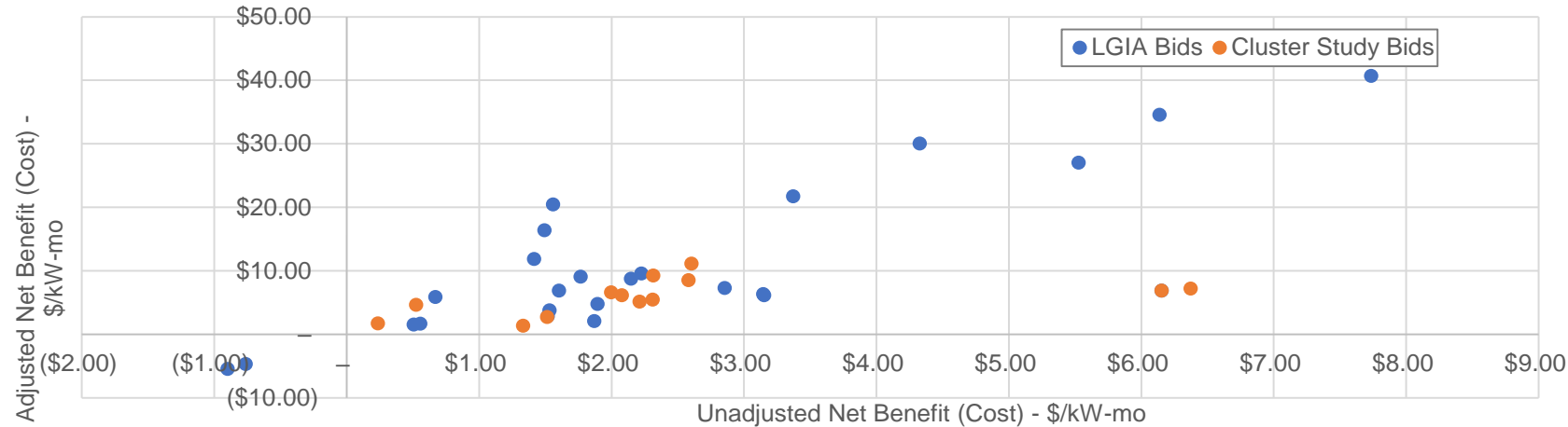
The geographic and technological distribution of the selected portfolio is somewhat different from the IRP Preferred Portfolio

- Stand-alone solar was the least successful technology in proceeding from FSL eligibility to the FSL itself
- Several RFP “bubbles” had no FSL eligible bids placed on the FSL
 - Some bids were eliminated from the “base case” FSL portfolio because they presented net costs compared to other resources
 - Other FSL eligible bids rejected that appeared to have both high costs and significant net benefits. The scoring model suggested their energy was highly valued by the market and hence could have introduced unnecessary market risk



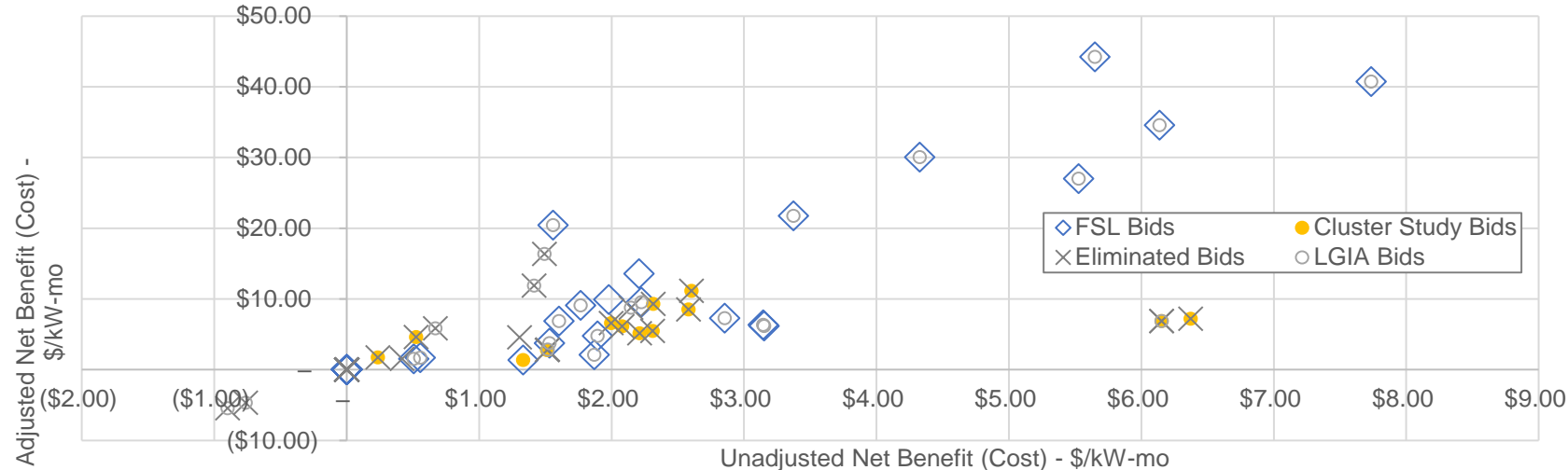
For many bids that went through the Cluster Study, PacTrans' timeline estimates did not assure they could be interconnected by the RFP deadline

Comparison of LGIA and Cluster Study Bid Values



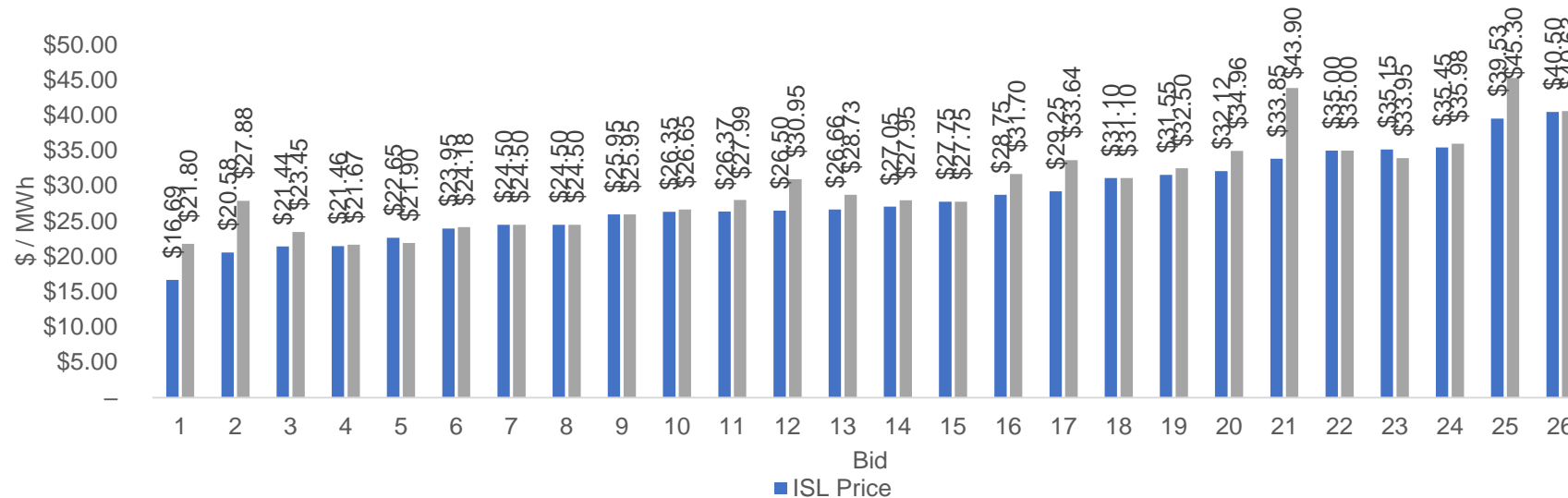
- Ten cluster study projects received interconnection timelines of 72 months
- All but one of the bids that went through the Transition Cluster Study were eliminated
- On average, the value of bids participating in the cluster study presented lower net benefit than bids with LGIAs

Comparison of Selected and Eliminated Bid Values



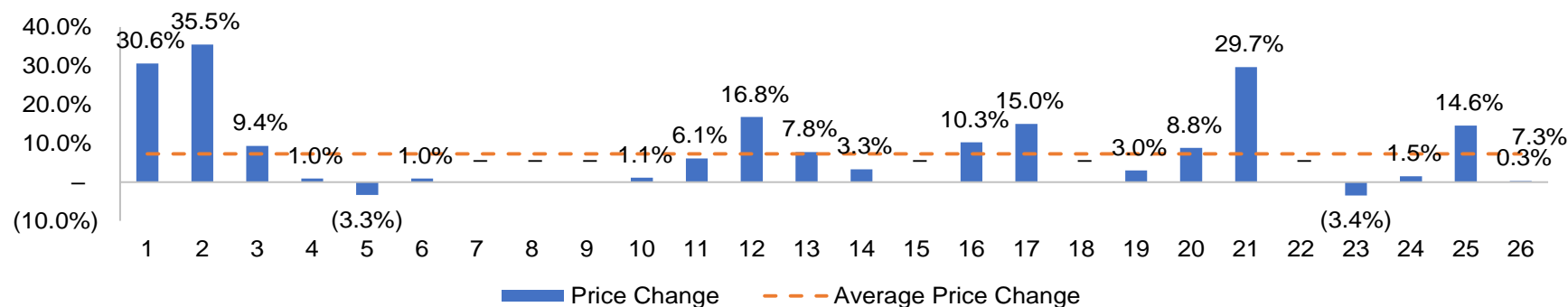
After including interconnection costs, some best-and-final bid prices significantly exceed the initial submissions

Comparison of ISL to Re-priced First Year Offers (\$/MWh)



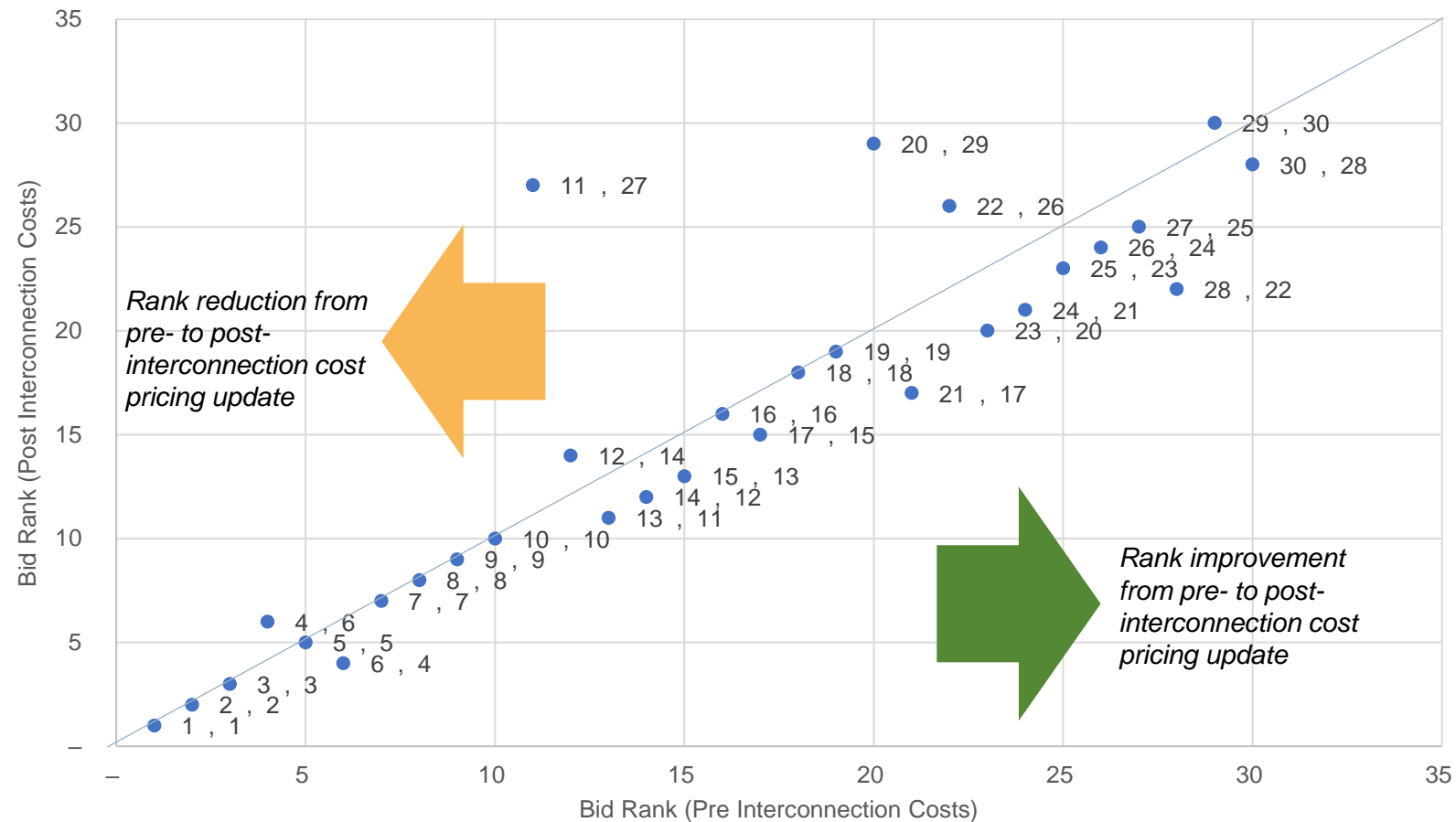
- Bid prices rose by ~7% from original to final
- Interconnection costs varied widely
- The duration of time from original bid to re-pricing represents risks to both parties

Change in Adjusted Net Benefit (% difference in Pre and Post Interconnection study Adjusted Net Benefit)



The relative desirability of several bids (based on model scores) fell based on their best and final pricing

Pre-Interconnection to Post-Interconnection bid rank (adjusted net benefit)



- Ranks (and value comparison) stayed relatively consistent
- However, there were outliers:
 - Bid rank 11 going to 27: 30% increase in bid price
 - Bid rank 20 going to 29: 11% increase in BTA price

Two wind BTA bids were accepted for the FSL, one with a 190 MW capacity and the other with a 400 MW capacity

In both its initial (ISL) and final (FSL) analyses PA compared the scoring of BTA and PPA bids to determine if they were fair and unbiased

In its initial analysis PA examined cases where bidders had submitted comparable PPA and BTA offers from the same resource.

- For solar resources the PPA offer always had higher net benefit
- For wind resources the BTA offer more often than not (including these two cases) had higher net benefit.

For the FSL analysis PA estimated how these projects may have been bid as PPAs by escalating the costs of comparable PPA bids (for the same projects, from the initial submission) by the median price increase

- If these bids had been PPA bids with the same net benefits, they would have been more expensive than all but one of the other bids on the FSL, but comparable to or less expensive than the bids PacifiCorp rejected from the FSL
- The two bids were selected by the IRP models in every market scenario

PA's conclusion is that the inclusion of these two BTA bids in the FSL was reasonable and not a sign of pro-BTA bias

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As strategies, technologies and innovation collide, we create opportunity from complexity.

Our diverse teams of experts combine innovative thinking and breakthrough use of technologies to progress further, faster. Our clients adapt and transform, and together we achieve enduring results.

An innovation and transformation consultancy, we are over 3,200 specialists in consumer, defense and security, energy and utilities, financial services, government, health and life sciences, manufacturing, and transport. Our people are strategists, innovators, designers, consultants, digital experts, scientists, engineers and technologists. We operate globally from offices across the UK, US, Europe, and the Nordics.

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