BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1845

In the Matter of	)	
PACIFICORP, dba PACIFIC POWER	)	COMMENTS OF
PacifiCorp's Application for Approval of	)	AVANGRID RENEWABLES, LLC
2017R Request for Proposals.	)	

Introduction

Avangrid Renewables, LLC ("Avangrid Renewables") appreciates the opportunity to comment on the report of the Independent Evaluator filed with the Commission February 16, 2018 ("IE Report").

Avangrid Renewables wishes to stipulate two obvious facts up front, and speculate on a third likelihood: 1) that it was a bidder in the 2017R Request for Proposals ("RFP"); 2) that none of the bids submitted in the RFP was chosen for the final shortlist; and, 3) that, at this point in the calendar it is highly unlikely that Avangrid Renewables would be able to execute on its bid by the end of 2020 should the utility revise its final shortlist.

While Avangrid Renewables has effectively "moved on" from this opportunity to meet the requirements of this RFP by late 2020, the company is compelled to comment on the IE Report at this time for the benefit of this RFP as well as future resource solicitations. The customers of Oregon's regulated utilities should be the beneficiaries of power resource choices made fairly, objectively, and in their interest. In this

selection, Avangrid Renewables asserts the resource choices fall short of the mark. Consequently, Avangrid Renewables suggests the Commission should consider withholding acknowledgement of the final shortlist.

Qualification Based on Interconnection Queue Position

Beginning at page 32, the IE Report at Section VII.C addresses PacifiCorp's "...concerns regarding interconnection costs for some of the offers."[1] The IE Report describes potential constraints on the PacifiCorp Transmission system that would arise from selection of projects lower in the interconnection queue. As a result, "...PacifiCorp believed it was highly unlikely that projects higher up in the queue would be able to interconnect with the D2 Segment alone."[2] The Report further notes that a January, 2018 interconnection cost restudy "..found that the Project with Queue number 713 triggered the need for major upgrades, stating: 'Additionally, the Q0713 project triggers the need for the Transmission Provider's Energy Gateway South project....This meant that, in effect, any bid within the constrained area in Wyoming with a higher queue number than 712 would require extensive new transmission investment to be deliverable and likely would not be deliverable by the end of 2020.'"[3]

The result of this assertion is noted, in redacted form: "..a majority of offers are no longer viable without transmission investment...(three redacted) projects are only

[1] THE INDEPENDENT EVALUATOR'S FINAL REPORT ON PACIFICORP'S 2017R REQUEST FOR PROPOSALS, February 16, 2018, p. 32.
[2] *Ibid., p. 32.*
[3] *Ibid., p. 33.*

viable because they are outside the constrained area in Wyoming. Inside the constraint only three projects – (names redacted) – are viable."[4]

The problem with this assertion is that it falsely conflates priority in the interconnection queue with priority access to network transmission. Execution of a Large Generation Interconnection Agreement ("LGIA") only guarantees access to the grid, not capacity on it. This is explicitly stated in the FERC approved PacifiCorp standard LGIA.[5]

The ability of a generation project to deliver electricity from its point of interconnection to the grid to a power customer requires obtaining the interconnection agreement AND the ability to transmit power on the transmission grid.

PacifiCorp Transmission is responsible for studying interconnection requests, identifying and estimating the cost of required upgrades, and completing interconnection agreements, consistent with FERC's LGIA rules.

In processing requests for interconnection, PacifiCorp Transmission is required by FERC rules to exercise diligence in completing System Impact Studies within a 90-day deadline and using "reasonable efforts" if the transmission function is unable to complete the studies within that window. PacifiCorp Transmission has a range of resources at its disposal – both in-house and third-party – to complete required studies on a timely basis. In other situations, PacifiCorp Transmission has effectively

[4] *Ibid., p. 34.*

[5] Article 4.1.1.2 of the PacifiCorp Standard LGIA is applicable as the selected projects were studied as Energy Only Resources per the PacifiCorp posted interconnection queue. The LGIA is incorporated into the OATT and available at: http://www.oatioasis.com/PPW/PPWdocs/20171212_OATTMASTER.pdf

streamlined processes in order to meet these requirements within the bounds of their FERC requirements.

In allocating transmission capacity – a responsibility that is distinct for its interconnection duties – PacifiCorp Transmission follows the direction of the entity(ies) that hold rights to transmission capacity.

In the particular case of this system, PacifiCorp's merchant function is required to secure the transmission capacity on the PacifiCorp grid to deliver to its native load. To enable the resources selected in this RFP to be added to the PacifiCorp portfolio, PacifiCorp merchant will designate the selected generation as Network Resources.

Avangrid Renewables stipulates that PacifiCorp merchant should be prudent in assessing whether proposed generation facilities will be able to interconnect to the grid by the desired deadline (December 31, 2020). However, choosing generation assets that are at the head of the interconnection queue based on the premise that the projects have reserved all of the available transmission capacity to load demonstrates a misunderstanding of what an LGIA secures for generators. A higher place in the interconnection queue does not confer a right to the transmission capacity.

Unfortunately, the result of this process of selecting resources based on interconnection queue positions may be the imposition of additional resources costs. This may occur in two ways. First, it may result in the selection of higher-cost resources. Second, it requires transmission upgrades needed beyond the eastern terminus of D2 segment ("Aeolus"). Per the publicly available PacifiCorp interconnection queue, the annotated table below outlines the estimated costs for each

interconnection position. As this demonstrates, selecting a project east of Aeolus (Shirley Basin and Windstar substations) would result in significantly higher interconnection costs for projects with similar wind resources interconnecting at Aeolus.

PacifiCorp Queue #:	706	707	708	712
POI:	Aeolus substation	Shirley Basin substation	Shirley Basin substation	Windstar substation
NU Total:		$21,293,000	$18,326,000	$43,377,000
230kV Circuit Costs (subset of NU Total):	$ -	$ 16,676,000	$ 15,543,000	$ 39,289,000
Comments on 230kV Costs:	Didn't breakout NU vs TPIF costs	Includes $11M @ POI switching, new 9 mile line from Aeolus to POI SS (Shirley basin)	Excess for Aeolus-Shirley Basin Line and new position @ Shirley Basin	Re-conductor 16 miles of 230kV and rebuild another 16 miles of 230kV. Both east of Aeolus
TPIF:	$ 2,760,000	$ 1,826,000	$ 4,974,000	$ 5,980,000
Service:	ER	ER	ER	ER
Capacity (MW):	250	250	250	520
County:	Carbon	Carbon	Carbon	Converse
State:	WY	WY	WY	WY

PacifiCorp errs in its assertion that transmission constraints follow the interconnection queue. Unfortunately, the IE Report accepts this assertion and does not delve into the question of how the PacifiCorp merchant function will secure the transmission capacity for the selected projects. Avangrid Renewables submits that a resource selection should be from a pool of qualified bidders, based on:

1. An assessment of which facilities in the interconnection queue may be reasonably expected to execute LGIAs with PacifiCorp Transmission and perform the required upgrades to enable timely interconnection; and,
2. The underlying quantitative and qualitative factors set forth in RFP 2017R, including an assessment of the costs associated with transmission upgrades required for the candidate resources.

Addressing the first criterion directly, Avangrid Renewables suggests PacifiCorp should not have excluded from its final shortlist pool bids that the company might reasonably have expected to execute an LGIA with PacifiCorp Transmission in time to build and interconnect a generation project by December 31, 2020. Specifically, projects that filed for an LGIA before October 1, 2017, would reasonably be expected to execute an interconnection agreement in 18 months – by April 1, 2019. This would leave 21 months to construct and interconnect the project. Both time frames are well within the historic practices of PacifiCorp Transmission and utility-scale wind project developers for completing an interconnection agreement and constructing and placing in service a significant wind project.

Nominal vs. Levelized Treatment of Production Tax Credits

In the process of evaluating the bids, PacifiCorp modified its methodology for evaluating the Production Tax Credits (PTCs) – applying them on a nominal basis rather than on a levelized basis. This change is explained in the Supplemental Direct Testimony of Rick Link in Wyoming Docket No. 20000-520-EA-17. In discussing other modeling changes, such as those resulting from tax reform, Mr. Link states:

“Q: In addition to the assumption updates described above, did the Company change how it applied federal PTC benefits in its system modeling using the SO model and PaR configured to forecast system costs through 2036?

“A: Yes. When establishing the 2017R RFP final shortlist, the Company applied PTC benefits for applicable bids (BTAs and benchmark-EPC bids) on a nominal basis rather than on a levelized basis.”[6]

However, this methodological change creates an inconsistency between the way cost inputs are modeled and the way PTC benefit inputs are modeled. In PacifiCorp’s 2017 Integrated Resource Plan (“IRP”), the company notes that the established and preferred methodology for the treatment of capital costs for capital-intensive resources is to levelize them.[7]

Mr. Link’s RFP testimony in Wyoming, however, goes on to confirm that PacifiCorp continued to levelize capital costs in its evaluation of the bids – justifying the decision to do so with the claim that the revenue requirement from capital investment is spread over the life of the asset.

“Q: Did the Company continue to apply revenue requirement associated with capital costs on a levelized basis in its system modeling using the SO model and PaR configured to forecast system costs through 2036?

“A: Yes. When setting rates, revenue requirement from capital costs is depreciated over the book life of the asset, effectively spreading the cost of capital

[6] Supplemental Direct Testimony of Rick T. Link – REDACTED; Wyoming Public Service Commission Docket No. 20000-520-EA-17; January 2018; p. 25.
[7] PacifiCorp 2017 Integrated Resource Plan; April 2017; p. 150

investments over the life of the asset. Because revenue requirement from capital projects is spread over the life of the asset in rates, these costs continue to be treated as a levelized cost in the SO model and PaR simulations."[8]

This statement is misleading because the revenue requirement impact of capital additions is not spread evenly throughout the life of an asset, but is front-loaded during the initial years of an asset's life when it enters rate base, tapering off as the asset is depreciated. Furthermore, treating capital costs on a levelized basis while treating PTC benefits on a nominal basis has the effect of biasing the financial modeling towards a preference for company-owned (whether utility-built or BTA assets), for which there are large upfront capital additions and a direct pass through of PTCs, over PPAs.

These points are also raised by the Independent Evaluator:

"At this point, PacifiCorp made the observation that the non-levelized PTC selection would more closely reflect how they planned to pass PTC benefits through to ratepayers. While this was a reasonable assertion, we also noted that we had some concern that costs for their selection would not be levelized in real life but would, in fact, be front-loaded as well due to the way in which the costs for rate-based assets are recovered. Therefore, we had some concern that the front-loaded nature of rate recovery would cancel out the front-loaded benefits of the PTC recovery, and that the PPA-heavy portfolio was truly a better selection."[9]

Concerned that the inconsistent treatment would result in a suboptimal portfolio selection, the Independent Evaluator requested that PacifiCorp run a sensitivity analysis

[8] Ibid, pp.25-26.
[9] Independent Evaluator Final Report, p. 29.

that reverted to the original treatment of levelizing both the PTCs and capital costs. The results of the sensitivity confirmed that using a levelized approach across both inputs resulted in a different portfolio selection that offered more net benefits to customers.

"In response to this concern PacifiCorp produced an analysis looking at the actual flow of cost recoveries, treating both PTCs and costs as incurred. […] **While the PPA portfolio is more expensive in the early years, as we might assume since the value of the PTC in a PPA is spread out over a longer period of time, by 2034 it has greater cumulative benefits than PacifiCorp's selected portfolio. Even over the entire lifetime of all projects, the PPA portfolio produced more net benefits**. Note also that the only reason the PacifiCorp portfolio was even close in net benefits over the entire time period was due to a large terminal value applied to company-owned bids totaling about $374 million in 2050. Without the terminal value the PPA portfolio produced a net cumulative benefit of $219 million versus $185 million for PacifiCorp's chosen portfolio."[10] (emphasis added)

Clearly, the methodological change employed by PacifiCorp had the effect of skewing the bid evaluation, resulting in a preference for resources that would ultimately more expensive for customers than other options available to PacifiCorp. Again, the Independent Evaluator notes as much:

"[T]he Company's modeling method, which levelized cost but not the benefits of PTC acquisition, could have biased the bid selection to less favorable offers."[11]

[10] Ibid, pp. 29-30.
[11] THE INDEPENDENT EVALUATOR'S FINAL REPORT ON PACIFICORP'S 2017R REQUEST FOR PROPOSALS, February 16, 2018, p. 6

The inconsistent treatment between capital costs and PTC benefits is not justifiable. In this and future resource acquisition evaluations, those inputs should be treated consistently so as to avoid the selection of resource acquisitions that are more expensive for ratepayers.

Terminal Value

Based on inquiries to the PacifiCorp RFP team, and confirmed in the Supplemental Direct testimony of Rick T. Link to the Wyoming Public Service Commission, Avangrid Renewables understands its power-purchase agreement bids were assigned no terminal value despite the inclusion of a purchase option.[12]

A purchase option not only provides value to PacifiCorp by allowing the option to purchase the project at the end of the PPA term, but also allows PacifiCorp the option to benefit from the terminal value of the project should it be beneficial to PacifiCorp at the end of the PPA term. The option to purchase the project and evaluate the benefits of the remaining project life and terminal value 20 years from now is arguably more valuable than committing to the purchase today. The same terminal value should apply to both a BTA and PPA with a purchase option today and a premium for the optionality PacifiCorp has should be included in the purchase option evaluation.

[12] "These terminal-value benefits are not applicable to a PPA bid, where a third-party retains control of the site." Supplemental Direct Testimony of Rick Link, p. 18.

Conclusion

PacifiCorp customers could have been better-served, and regulators could have had a higher degree of confidence, in a more reasoned resource selection process. Unfortunately, there are three significant analytical errors as described above:

*disqualifying projects due to position in the interconnection queue;

*applying PTC values on a nominal rather than levelized basis, in contravention with long-standing policy in prior and the recently-approved Integrated Resource Plan; and,

*providing zero terminal value to proposed power-purchase agreements with a purchase option.

These three errors result in a flawed final short list, creating significant, unnecessary cost to PacifiCorp customers, with customers forced to pay for unnecessary transmission upgrades and higher-cost wind generation because of these errors.

Those additional costs may offset in whole or in large part the difference between portfolio costs in which facilities receive 100 percent renewable PTCs vs. facilities that come on line later and only qualify for 80 percent PTCs.

With these issues and questions in mind, unless the financial benefits of moving forward favor this short list compared with projects that may not receive full PTC benefits but have lower costs when the three analytical errors are corrected, the Commission should withhold acknowledgement of the 2017R RFP final shortlist.

Dated this 19th day of March 2018.

Respectfully submitted,

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