BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 307

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In the Matter of	)
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PACIFICORP, dba PACIFIC POWER,	)
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2017 Transition Adjustment Mechanism (TAM).	)
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RESPONSE BRIEF OF THE

CITIZENS' UTILITY BOARD OF OREGON

September 26, 2016

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I. Introduction

Pursuant to Administrative Law Judge ("ALJ") Grant's July 8, 2016 Prehearing Conference Memorandum, the Citizens' Utility Board of Oregon ("CUB") submits its Response Brief in docket UE 307.

On April 1, 2016, PacifiCorp ("PAC" or "the Company") submitted its 2017 Transition Adjustment Mechanism ("TAM") filing, which requested approximately $380 million dollars in net power costs ("NPC").[1] This request is equivalent to that of a significant capital investment such as a gas plant, major solar plant, or wind farm.[2] However, amortization for these NPCs lack the thirty year window of the aforementioned capital investments, and, instead are collected from customers in one year.[3]

Throughout this docket, PAC has failed to demonstrate that the large costs and short timeframe of their TAM request is reasonable. The approximately $380 million

[1] UE 307 – CUB/200/McGovern/1, lines 7-9.
[2] *Id*. at 3, lines 1-2.
[3] *Id*. at lines 2-4.

requested by the Company represents an increase of $16.2 million over last year's TAM,[4] and would bring NPC back up to a level higher than when the Company joined the Energy Imbalance Market ("EIM") in 2014, even though several important factors have changed since then.[5] Gas prices are now about half of what they were in 2014, the economy is generally recovering, and the EIM is designed to provide savings to customers in the form of efficiencies.[6]

PAC has also failed to demonstrate that the methodology of its power costs estimates is reasonable, despite repeated requests for clarity.[7] This is evidenced by the fact that all non-Company parties have vigorously contested most aspects of the Company's filing, with adjustments totaling over $42 million.[8] Generally speaking, CUB believes that the Company's approach in this process is flawed.[9] The GRID[10] model, which initially began as a hydro modeling tool, has been tweaked and altered to fit current circumstances in a manner that is inconsistent with its designed purpose.[11] Although it is an extremely complex modeling tool, it has numerous limitations that have rendered the Company's power cost forecasting methodology non-transparent.[12] The process has been further flawed and obfuscated by the fact that the Company has not

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[4] UE 307 – PacifiCorp's Opening Brief at 1, line 5.
[5] UE 307 – CUB/200/McGovern/1, lines 10-11.
[6] *Id*. at lines 11-12, p. 2 lines 1-2.
[7] *Id*. at p. 2, lines 3-5.
[8] UE 307 – PacifiCorp's Opening Brief at 1, lines 18-19.
[9] UE 307 – CUB/200/McGovern/2, line 8.
[10] *In re PacifiCorp d/b/a/ Pacific Power's 2016 Transition Adjustment Mechanism*, Docket No. UE 296, Order No. 15-394 at 2, fn. 2 (Dec. 11, 2015) ("GRID stands for Generation and Regulation Initiative Decision Tool. GRID is PacifiCorp's hourly production cost model that the company has used in its Oregon rate filings since 2002").
[11] UE 307 – CUB/200/McGovern/2, lines 8-10.
[12] *Id*. at lines 10-11.

been forthcoming in its duty to work with parties to understand its calculations and adjustments.[13]

A. *The Company's Burden of Proof*

The Company has failed to meet its burden in this case. Generally speaking, the Company "bear[s] the burden of showing that its proposal will result in rates that are fair, just, and reasonable."[14] PAC bears both the burden of persuasion and production to support their claims.[15] Both the burden of persuasion and the ultimate burden of producing enough evidence to support its claims lie with the utility.[16] Other parties in the case have the burden of producing evidence to support their argument in opposition to the utility's position.[17]

Throughout this proceeding, the Company has asserted at various times that CUB and other parties misunderstand calculations that it is making.[18] However, the Company's argument that CUB and other parties either misinterpret or do not understand the calculations it is making does not rise to the level of meeting its requisite burden of proof. The Company must produce enough evidence to support its claims.[19] In many instances throughout this proceeding, the Company has failed to do so.

[13] *Id*. at lines 11-13.
[14] *In re PacifiCorp d/b/a/ Pacific Power's 2016 Transition Adjustment Mechanism*, Docket UE 296, Order No. 15-353 at 2 (Oct. 26, 2015); *see* ORS 757.210(1); *see also In re Portland General Electric Company's 2012 Annual Power Cost Update Tariff (Schedule 125)*, Docket No. UE 228, Order No. 11-432 at 3 (Nov. 2, 2011) (citing *In re PGE Application to Amortize the Boardman Deferral*, Docket No. UE 196, Order No. 09-046 at 7-8 (Feb. 5, 2009).
[15] Order No. 15-353 at 2.
[16] *Id*.
[17] *Id*. at 7-8.
[18] *See* UE 307 – CUB/200/McGovern/11, lines 5-9 (Company failing to provide any documentation to demonstrate that CUB misunderstands the Company's calculation of EIM export benefits that does not include transmission utilization in calculating historical benefits); *see also Id*. at 12, lines 4-17; *see also Id*. at 17, lines 7-12 (Company asserting that CUB is incorrect in its understanding of EIM export costs).
[19] Order No. 09-046 at 7.

B. *Issues*

As stated in testimony throughout this docket, CUB has a number of outstanding concerns and issues with the Company's transparency and forecasted NPC calculations. This Reply Brief builds and expands on the following concerns:

- EIM Benefit Calculations;
- PURPA Qualifying Facilities and Recovery;
- Coal Plant Take or Pay Contracts;
- Day Ahead Real Time ("DA-RT") Modeling Refinements; and
- The Company's Lack of Transparency and TAM Modeling Change Moratorium.

II. Argument

A. *PAC Has Under-Forecasted its EIM Benefit Calculations*

The EIM produces a wide range of benefits to ratepayers, and it is imperative that its effect be appropriately modeled and calculated. The EIM is an automated dispatch system that the Company has entered into, which allows for efficient balancing of load and generation resources for participants.[20] The EIM provides both reliability and renewable integration benefits to the grid, and economic benefits to participants.[21] The EIM was established by the California Independent System Operator ("CAISO") on November 1, 2014, with PacifiCorp as the first external participant.[22] According to the Company, "[b]y participating in the EIM, the Company's participating generation units are optimally dispatched using the CAISO's computerized security constrained economic dispatch model. The EIM's automated, expanded footprint, co-optimized dispatch

[20] UE 307 – Staff/100/Crider/3, lines 3-6.
[21] *Id.*
[22] *Id*. at lines 16-17.

replaced the Company's largely isolated and manual dispatch within its two BAAs [(balancing authority areas)]. Participation in the EIM produces benefits to customers in the form of reduced NPC, partially offset by costs for initial start-up and ongoing operation."[23]

The evidence in the record shows that PAC has consistently under-forecasted EIM benefits. The Company's forecast of EIM benefits includes intra-regional benefits associated with the optimized dispatch of the Company's generation within its BAAs, inter-regional benefits that result from transactions between PacifiCorp, NV Energy, and CAISO, and flexibility reserve benefits, which result from a reduced regulating reserve requirement modeled in GRID.[24] In its filing, the Company includes $23.79 million (on a total-company basis) in EIM benefits. As discussed below, and throughout testimony in this docket, CUB believes that this number is much lower than what should actually flow to consumers.[25] Ideally, customers receive all of the benefits that flow from the EIM in the test year. At a minimum, customers should receive the actual benefits that are reported by CAISO for the current year. As a proxy, this would provide security to customers at a reasonable minimum, given that no party has presented any structural reason to expect that the actual benefits should begin to decrease. CUB has not been alone in its concerns about the low level of benefits projected by the Company, as Staff also believes that EIM benefits are not being comprehensively captured and shared with customers.[26]

[23] UE 307 – PAC/100/Dickman/26.
[24] UE 307 – PacifiCorp's Opening Brief at 32, lines 7-15.
[25] UE 307 – CUB/200/McGovern/23, lines 25-26.
[26] UE 307 – Staff/300/Crider/2, lines 3-5.

A consistent theme throughout this docket has been the confusion surrounding the modeling and calculation of EIM benefits.[27] Couple this ongoing confusion with the fact that the Company admitted at hearing to changing the method of calculating EIM export benefits between its direct and reply testimony, and it is easy to see why the value of EIM benefits has been difficult to track.[28] The complexity and shifting methodology of TAM filings is not isolated to this case.[29] The Order from last year's TAM imposed a one year moratorium on changes to modeling and directed the Company to work with parties and the Commission to allow thorough review of recent model changes.[30] Quite simply, that has not occurred. The fact that the Company claims its EIM benefits forecast relies on the same methodology the Commission found reasonable in Order No. 15-394 in the 2016 TAM[31] is beyond perplexing given its admission to changing methods at hearing.[32]

CUB urges the Commission not to accept the $23.79 million in total-company EIM benefits that the Company includes in this filing.[33] Parties have exhibited express interest in understanding the details of how the Company participates in the EIM, and how that participation is subsequently treated in NPC.[34] CUB agrees with Staff that a separate, independent investigation on the modeling of EIM benefits is necessary, and

[27] UE 307 – CUB/200/McGovern/20, lines 3-7; *see e.g.*, UE 307 – CUB Exhibit 210.
[28] Public Session Transcript (PS TR.) 19-20 (Dickman) ("We changed methods between PacifiCorp to Nevada [Energy] between our direct and our reply filing.").
[29] *See* Order No. 15-394; *see e.g.*, *In re PacifiCorp, dba Pacific Power, 2012 Transition Adjustment Mechanism*, Docket No. UE 227, Order No. 11-435 at 21 ("We initially observe, as a general matter, that a stand-alone TAM is intended to be a streamlined proceeding. Review and verification of the company's complex modeling presents a serious challenge, particularly in the context of a stand-alone TAM proceeding, when the Commission is presented with limited information and a short timeframe for decision.").
[30] Order No. 15-394 at 13.
[31] UE 307 – PacifiCorp's Opening Brief at 32, lines 4-5
[32] *See* PS TR., *supra* note 29 at 19-20.
[33] UE 307 – PacifiCorp's Opening Brief at 32, line 16.
[34] UE 307 – CUB/200/McGovern/7 – lines 15-16.

appreciates the Company's non-objection to the idea.[35] CUB and Staff have both suggested that the Company may not be capturing all the EIM intra-regional benefits and may be valuing the inter-regional benefits incompletely.[36] A discussion of CUB's issues with the Company's EIM benefit calculations and suggested alternatives follows.

1. Intra-Regional Benefits

The Company incorrectly quantifies intra-regional benefits, and CUB has consistently maintained the position that the Company shortchanged its customers by not crediting NPC for EIM intra-regional benefits.[37] The EIM's automated dispatch system allows for re-dispatching of generation within the Company's two BAAs—PacifiCorp West ("PACW") and PacifiCorp East ("PACE")—on a five minute sliding window.[38] Prior to joining the EIM, PACW and PACE balanced load generation on a less efficient hourly basis.[39] Without the investments made necessary by the EIM, the Company might still be operating in this manner. The automated EIM realizes benefits for the Company through more efficient and economic use of resources.[40] CUB has seen no evidence from the Company that GRID calculates all of the benefits that participation in the EIM generates.[41]

a. Does the GRID Model Capture EIM Intra-Regional Benefits? Is it Silent?

According to the Company, all of the EIM's intra-regional benefits are inherent in the GRID forecast, and imputing additional benefits constitutes double-counting.[42] The Company believes that EIM's intra-regional benefits result from the use of CAISO's

[35] UE 307 – PacifiCorp's Opening Brief at 32, lines 19-20.
[36] UE 307 – Staff/300/Crider/2, lines 18-20.
[37] UE 307 – CUB/200/McGovern/22, lines 10-11.
[38] UE 307 – Staff/100/Crider/5, lines 7-10.
[39] *Id*. at lines 10-12.
[40] *Id*. at lines 12-13.
[41] *Id*. at lines 12-13.
[42] UE 307 – PacifiCorp's Opening Brief at 34, lines 7-8.

security constrained economic dispatch ("SCED") to optimize the Company's system.[43] The Company states that because GRID is perfectly optimized, in every hour the lowest cost resources will be dispatched, subject to transmission constraints, and the intra-regional benefits manifest as a decrease in the Company's *actual*, not modeled, NPC.[44] The Company admits that intra-regional benefits are real and quantifiable, but argues that they are already built into the Company's overall NPC forecast.[45] The Company points to Nevada Energy's ("NVE") participation in the EIM as additional evidence that intra-regional benefits are fully captured in GRID.[46]

The Company's argument is unavailing, because it has failed to meet its burden to produce sufficient evidence that intra-regional benefits are inherently captured within the GRID model. Intra-regional benefits are not adequately captured within the GRID model, and intra-regional benefits must be separately imputed based on CAISO's overall benefits calculation.[47] The Company repeatedly asserts that because "GRID is already perfectly optimized," intra-regional benefits inherently flow from the lowest cost resources being dispatched every hour.[48] This narrow argument fails to account for the fact that GRID *only* operates down to the hour.[49] Sub-hourly transactions are facilitated by the EIM, and therefore offer opportunities for efficiencies.[50] For example, because the EIM collects fifteen minute data and economically dispatches every fifteen minutes, it

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[43] *Id*. at lines 9-11.
[44] *Id*. at lines 12-14.
[45] *Id*. at lines 14-15.
[46] *Id*. at 35, lines 15-16.
[47] *Id*. at 34, lines 17-19; *see also* UE 307 – CUB/200/McGovern/22.
[48] *See e.g.*, UE 307 – PacifiCorp's Opening Brief at 34, lines 12-14; *see also* UE 307 – CUB/200/McGovern/22, lines 13-14.
[49] UE 307 – CUB/200/McGovern/22, line 14.
[50] *Id*. at lines 14-15.

has the capability to prepare for economic ramping.[51] Since the EIM can dispatch the Company's resources automatically and economically across the hour—while ramping them to meet the next hour—efficiencies are gained.[52] Despite the Company's argument that GRID—which is only optimized on an hourly basis—adequately captures intra-regional benefits, parties remain unconvinced.[53] The ability to fine tune your system on a sub-hourly basis should reduce costs.[54]

b. CUB's Recommendation – How to Treat Intra-Regional Benefits?

The only thing certain surrounding the Company's quantification and treatment of EIM intra-regional benefits throughout this proceeding has been uncertainty.[55] It is also certain that there are real benefits from the EIM, and that they grow with the participation of new balancing authorities and companies. The Company clearly has an incentive to under-forecast EIM benefits.[56] CAISO, on the other hand, does not have an incentive to miscalculate participant benefits.[57] EIM benefits are forecasted to grow in the test year with the entry of NV Energy and PGE. While CUB would prefer that customers get the full benefit, as a compromise CUB has suggested that the Company use actual benefits as reported by CAISO from the current year throughout this proceeding.[58] CUB now offers other alternatives that will provide a more equitable alternative than the Company's proposition that intra-regional benefits should be forecast to zero.[59]

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[51] *Id*. at lines 15-17.
[52] *Id*. at lines 19-21.
[53] UE 307 – PacifiCorp's Opening Brief at 34.
[54] *See* UE 307 – CUB/200/McGovern/22.
[55] *See e.g.*, UE 307 – CUB/200/McGovern/20; *see also Id*. at 24, lines 6-8.
[56] *Id*. at 24, lines 5-6.
[57] *Id*. at lines 8-9.
[58] *Id*. at 23, lines 25-26.
[59] UE 307 – PacifiCorp's Opening Brief at 34, lines 7-8.

The problem with the CAISO study is that it compares the actual EIM dispatch results to a projected counterfactual scenario that estimates what would have happened without automatic dispatch—it is not comparing actuals to GRID.[60] Therefore, we are left in a position where the Company has failed to meet its burden of proof that the intra-regional benefits should be forecast to zero.[61] Customers have invested in GRID, but because GRID is not the CAISO counterfactual, use of GRID obscures the intra-regional benefits that should flow to customers. That is patently unfair.

CUB respectfully recommends that the Commission order the Company to credit the value of the CAISO estimate of EIM intra-regional benefits to customers until the Company adequately meets its burden of proof. Alternatively, CUB recommends that the Commission find that the Company's forecast of zero and the CAISO's forecast of approximately $26.2 million[62] represent the potential range of 2017 intra-regional benefits, and use the midpoint as a reasonable estimate for ratemaking purposes. This midpoint can be used until there is an adequate generic investigation on the modeling of EIM benefits. CUB, Staff, and the Company all support a generic investigation on the subject.[63]

2. Inter-Regional Benefits

Inter-regional benefits are realized by connecting the Company's transmission system and generating assets to CAISO, thereby greatly increasing the pool of generators available to serve both CAISO load and PacifiCorp load.[64] This means that both PAC

[60] *Id*. at 34, lines 19-20.
[61] *See* UE 307 – CUB/200/McGovern/11, lines 6-7 ("The Company does not provide any documentation to demonstrate that CUB misunderstands the Company's calculation.").
[62] UE 307 – Staff/100/Crider/6, lines 12-14.
[63] UE 307 – PacifiCorp's Opening Brief at 32, lines 19-20.
[64] UE 307 – Staff/100/Crider/4, lines 14-16.

and CAISO's balancing areas can benefit by allowing the least cost resource in either area to serve load anywhere across the EIM footprint.[65] The Company can realize a benefit when it utilizes energy from a lower cost CAISO resource instead of its own generator.[66] The EIM solves for the most economical solution in each five minute interval and automatically re-dispatches generation appropriately.[67] The Company refers to the benefits related to importing and exporting energy with CAISO as "inter-regional benefits."[68]

The Company says that it refined the calculation of inter-regional dispatch benefits to identify the cost specific incremental resources that could have facilitated transfers in each interval of the historical period.[69] What the Company actually did was alter its methodology for calculating the cost of EIM exports, in violation of the Commission's Order from last year's TAM. According to the Company, the benefit of EIM exports is equal to the revenue received less the production cost of generation assumed to supply the transfer.[70] The Company further states that the benefit of EIM imports is equal to the revenue received less the production cost of generation assumed to supply the transfer.[71] According to PAC, this "refined calculation" more accurately identifies the dispatched resource supporting the EIM transfer, and therefore results in a more accurate calculation of inter-regional benefits.[72]

[65] *Id*. at lines 16-18.
[66] *Id*. at lines 18-20.
[67] *Id*. at 5, lines 2-3.
[68] *Id*. at lines 3-5.
[69] UE 307 – PacifiCorp's Opening Brief at 37, lines 9-11.
[70] *Id*. at lines 11-13.
[71] *Id*. at lines 13-14.
[72] *Id*. at lines 14-16.

a. CUB's Analysis Has Been Made Very Difficult

As mentioned above in the intra-regional benefits discussion, CUB's analysis of how the Company does and should calculate EIM benefits has been made very difficult due to a number of factors.[73] Staff agrees with CUB's assessment, and views the Company's EIM benefit projection methodology to be overly complex, fraught with potential for errors, difficult to audit and account for, and fundamentally flawed since it is based on prices, not costs.[74] CUB and Staff are in agreement in recommending that the Commission reject the Company's method because it is too complex and lacks transparency, and, instead, adopt a much simpler estimation.[75]

In its Opening Brief, the Company counters by arguing that the Commission has previously accepted modeling refinements—i.e. the refinements made to EIM benefit calculations in this TAM—to the NPC forecast over objections that the refinement was too complex or relied on voluminous data.[76] This argument fails to account for the fact that there was no prior moratorium on modeling refinement in each of the TAM Orders referenced by the Company.[77] It is easy for the Company to argue for modeling refinements when it has not been given an explicit modeling moratorium by the Commission. That is not the case with this docket, as last year's Order placed a moratorium on modeling changes.[78]

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[73] UE 307 – CUB/200/McGovern/20, line 3.
[74] UE 307 – Staff/300/Crider/12, lines 8-10.
[75] UE 307 – Staff/300/Crider/12, lines 10-12; UE 307 – PacifiCorp's Opening Brief at 40, lines 6-8.
[76] UE 307 – PacifiCorp's Opening Brief at 40, lines 8-10; citing *see, e.g.*, Order No. 15-394 at 4; *In re Pacific Power 2014 Transition Adjustment Mechanism (TAM)*, Docket No. UE 264, Order No. 13-387 at 3-4; PAC/800/Dickman/12.
[77] *See* Order No. 15-394; Order No. 13-387.
[78] Order No. 15-394 at 13.

The Company further argues that producing an accurate NPC forecast may require complex analysis of voluminous data.[79] This argument is similarly unavailing, as it is utterly contradictory to the core purpose of the TAM.[80] At some point, the Company's constantly shifting analysis, modeling changes, voluminous data, and lack of transparency render the TAM a black box. Action is needed to ensure that the streamlined essence of the TAM is preserved.[81]

The EIM benefit calculations in this year's TAM continue these themes. In terms of inter-regional benefit calculations, CUB had to sort through pages and pages of workpapers to find that the Company had changed its method to calculate the EIM export benefit from PAC to NVE between its direct testimony and reply testimony.[82] Since this method change was made mid-case, it should have appeared on PAC's publicly filed List of Corrections or Omissions in this case, but was conspicuously absent.[83] As mentioned above, the Company admitted to this modeling change at hearing.[84]

b. CUB's Recommendation - How Should Inter-Regional Benefits be Calculated?

The Company's methodology of calculating inter-regional benefits underestimates EIM benefits by limiting EIM transfers based on the available transmission in the forecast test period.[85] According to the Company's own admission, transmission utilization is not a factor in calculating historical benefits CUB takes issue

[79] UE 307 – PacifiCorp's Opening Brief at 40, lines 11-12.
[80] Order No. 11-435 at 21 ("We initially observe, as a general matter, that a stand-alone TAM is intended to be a streamlined proceeding. Review and verification of the company's complex modeling presents a serious challenge, particularly in the context of a stand-alone TAM proceeding, when the Commission is presented with limited information and a short timeframe for decision.").
[81] *Id*.
[82] *See* CUB CONF Exhibit 206; CUB CONF Exhibit 208; UE 307 – CUB/200/McGovern 15-16.
[83] *See* UE 307 – 2017 Transition Adjustment Mechanism – PacifiCorp's List of Corrections or Omissions (June 16, 2016).
[84] *See* PS TR., *supra* note 29 at 19-20.
[85] *Id*. at 15; *see also* UE 307 – PacifiCorp's Opening Brief at 42, lines 1-2.

with the fact that *forecasted* benefits are being discounted by historical transmission utilization.[86] CUB does not contend that the Company discounts historical benefits by transmission utilization, but that it discounts forecasted benefits.[87]

Despite the difficulties associated with tracking the Company's method for calculating inter-regional benefits in this docket, CUB recommends that the Commission adopt the method employed by the Company in its reply testimony for transfer from PAC to NV Energy and apply that methodology to all inter-regional transfers. That is, historical sales, not historical transmission allocation, should be used to forecast EIM inter-regional benefits on an annual basis, in the same manner that the Company used to calculate EIM export benefits from PAC to NVE.[88] This method does not consider transmission availability as a factor, and bases the calculations on actual operations.[89] The Company does not sell transmission in the EIM, and should not use transmission as a proxy for sales forecasts. Instead, given that actual MWh sales records are available, the Company should use that data, which is most closely linked with future MWh sales to CAISO. To accept the Company's argument that transmission utilization is the appropriate proxy for next year's EIM energy exports to the CAISO, is to accept the mathematical supposition that both the: (1) transmission made available to CAISO by the Company, and (2) the amount of transmission that CAISO elects are more directly correlated to 2017 EIM actual exports than 2016 actual EIM exports. The Company has not proven this supposed relationship, and CUB continues to argue that it is weak and unfounded. CUB further recommends that the same methodology be applied to exports

[86] UE 307 – CUB/200/McGovern/11, lines 10-11.
[87] *Id*. at lines 20-21.
[88] PS TR. at 18, lines 18-22.
[89] *Id*. at lines 22-25.

from PAC to CAISO. To the degree that use of non-firm transmission between PAC and NV Energy makes additional transfers that do not happen between PAC and CAISO, this difference is already captured in the historic actual transactions.

B. *PAC Has Over-Forecasted PURPA Qualifying Facilities ("QFs") Contracts*

Since the TAM is a projection of future test year costs, there is uncertainty as to which costs will be realized and which will not.[90] In the case of QF costs, there is uncertainty as to if and when a QF will become operational.[91] If a QF is not operational during the test year, its costs should not be included.[92] However, it can be difficult to ascertain whether a QF will become operational in the test year beforehand.[93] Currently, the Company includes all QF projects that have an executed power purchase agreement ("PPA") with a commercial operation date within the test year.[94] Staff and CUB both take issue with the Company's current treatment of QF costs.[95] While Staff recommends that the Company apply a "historical success factor" to new QFs with executed contracts that are not operational by January 1 of the test period,[96] CUB proposes a new methodology in this Response Brief.

The Company argues that its modeling of QF follows the TAM Guidelines, and that it includes new QF contracts in the TAM if the Company can attest that it reasonably expects the QF to reach commercial operation during the test period.[97] According to the Company, once a QF contract is included in the forecast, the Company models it as it is

[90] UE 307 – Staff/300/Crider/17, lines 4-5.
[91] *Id*. at lines 5-6.
[92] *Id*. at lines 6-7.
[93] *Id*. at lines 7-9.
[94] *Id*. at lines 12-13.
[95] *See* UE 307 – PacifiCorp's Opening Brief at 53-54.
[96] *Id*. at 54, lines 2-4.
[97] *Id.* at 53, lines 8-11.

expected to operate during the test year (i.e. if the QF is operational for one month, then only one month of generation is included in the forecast).[98] The Company argues that no further reduction in QF contract forecasting should occur because the Company "already under-forecasts QF generation in the TAM."[99] The argument side-steps the appropriateness of the Company's methodology, and is unpersuasive.

CUB takes issue with the Company's inclusion of QF contracts in the TAM based on a reasonable expectation that they will become operational during the test period.[100] CUB objects to the Company including 100% of QF contracts in rates, which will very likely over-forecast QF contract costs as it is almost certain that not all QFs will come online.[101] The Company's expectation that its QFs will come online is especially concerning given that the Bend Bulletin recently reported that there are delays in the construction of the Company's new QFs, including the Bear Creek Solar Center and the Adams and Elbe solar power facilities.[102] CUB remains concerned that the Company is including QF contracts in its forecast at their maximum level.[103] CUB continues to believe that QF contracts should be modeled and forecasted in a manner similar to Forced Outage Rates ("FOR").[104] CUB recommends that the Company include, in rates, all new facilities with which it has *signed* contracts.[105] Importantly, these signed contracts should be discounted for the historical inaccuracy of the Company's forecast.[106] The Commission should order the Company to limit its recovery to 93% of the projected

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[98] *Id*. at 11-13.
[99] *Id*. at 54, lines 6-7.
[100] UE 307 – CUB/200/McGovern/9, line 4.
[101] *Id*. at 28.
[102] Joseph Ditzler, *Pacific Power extends solar-project timeline*, The Bend Bulletin (September 25, 2016).
[103] UE 307 – CUB/200/McGovern/9 at lines 17-18.
[104] *Id.* at lines 18-19
[105] *Id*. at 31, lines 16-18.
[106] *Id*. at lines 18-19.

production of new QF contracts for 2017, as history has indicated that approximately seven percent of QFs have not come online in the following year.

C. *Coal Plant Take or Pay Contracts*

In line with testimony submitted throughout this docket, CUB continues to propose disallowance associated with the Company's recently entered take-or-pay contracts.[107] CUB argues that the minimum-take provisions in three of the Company's coal supply agreements executed since 2015 are imprudent and recommends that all "costs and impacts" of these take or pay provisions be disallowed.[108] Given the uncertainty regarding the federal, environmental, and regulatory atmosphere surrounding coal since the Company's 2013 IRP, a binding and ongoing commitment to coal is imprudent.[109] CUB recommends that any take or pay provisions associated with a contract singed after the 2013 IRP be removed from the model.[110]

The Company argues that the value of CUB's proposed adjustment is zero because none of the Company's coal contracts executed since the 2013 IRP were adjusted in this case to account for the minimum take requirements.[111] However, this argument is unavailing as PAC's final modeling of power costs comes after the Order will be rendered in this docket.[112] After updating both forward price curves for gas and electricity and contracts, there is no way to know how individual resources will be dispatched in the fall.[113] While the current power cost modeling methodology may show

[107] *Id*. at 32; *see also* UE 307 – Staff/400/Kaufman/38, lines 5-6.
[108] UE 307 – PacifiCorp's Opening Brief at 29, lines 8-10.
[109] *See* UE 307 – CUB/200/McGovern/32; *see also* UE 307 – PacifiCorp's Opening Brief at 29, lines 10-12.
[110] UE 307 – CUB/200/McGovern/32, lines 3-4.
[111] *Id*. at lines 7-10, citing UE 307 – PAC/400/Dickman/51-52.
[112] UE 307 – CUB/200/McGovern/32, lines 11-12.
[113] *Id*. at lines 12-14.

the plants dispatching at a level that does not require an adjustment to account for the take or pay minimums, it does not mean that the October Update will not require an adjustment.[114] For this reason, CUB continues to recommend that PAC remove any impact from post-2013 IRP take or pay contracts when it finalizes 2017 power costs.[115]

D. *Day-Ahead and Real-Time ("DA-RT") Modeling Refinements Should be Rejected*

The Company has not met its burden that its DA-RT modeling should be adopted by the Commission in this docket. CUB supports ICNU's argument that the Commission should reject the Company's DA-RT modeling.[116] The Company argues that CUB's suggested DA-RT modeling refinement "effectively de-optimizes GRID so that customers no longer receive the benefits of GRID's perfectly optimized dispatch.[117] This mischaracterizes CUB's argument. CUB is not arguing that DA-RT de-optimizes GRID.[118] GRID is only optimal under the paradigm in which it was built, and is subject to the input entered.[119] GRID optimizes an instantaneous system down to the granularity of one hour—it does not produce finer results than that.[120] The issue, then, is that GRID does not accurately capture DA-RT, and the Company has not proven that its DA-RT modeling changes have resulted in an outcome that adequately benefits customers.

CUB has continually attempted to engage the Company throughout this docket to make changes to GRID to reflect how PAC actually purchases and sells power, rather than by using non-normalized actual results, as is done with the DA-RT adjustment. The purchases that the Company must make to balance its system, and the premium it pays

[114] *Id*. at lines 14-16.
[115] *Id*. at lines 17-18.
[116] UE 307 – ICNU/200/Mullins/2, lines 20-21.
[117] UE 307 – PAC/400/Dickman/64.
[118] UE 307 – CUB/200/McGovern/24, line 22.
[119] *Id*. at lines 22-23.
[120] *Id*. at lines 23-25.

when it purchases additional volumes closer to the hour are spuriously correlated.[121] They are both driven by the Company's alignment in diversity (or lack thereof) with the regional EIM in which it operates.[122] The Company should use the data that it already has—which is its own production capacity and capacity factors to determine when the market prices that it will pay are above or below average.[123]

CUB and other parties to this docket have continually attempted to work with the Company to even entertain any alternative approaches to its current DA-RT modeling within the GRID model. The Company has been uncooperative, to say the least. Both CUB and ICNU urge the Commission to deny the Company's proposed DA-RT modeling adjustment.[124]

E. *Transparency and Moratorium on Modeling Changes*

In Order No. 15-353, the Commission imposed "a one-year moratorium on PacifiCorp changing the GRID model to allow parties adequate time to understand, review, and evaluate recent changes to the model."[125] In its rebuttal testimony, ICNU recommended that the Commission extend this moratorium until the Company files its next general rate case.[126] CUB supports ICNU's recommendation, and agrees that the sort of major modeling changes that were approved in the 2016 TAM would be better reviewed in a holistic rate review, rather than an annual power cost filing.[127]

CUB not only supports the extension of the modeling change moratorium contemplated in Order No. 15-353, but also notes that, in order to be effective, the

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[121] *Id*. at 27, lines 6-8.
[122] *Id*. at lines 8-10.
[123] *Id*. at 19-21.
[124] *See* UE 307 – ICNU/200/Mullins/7.
[125] Order No. 15-353 at 2.
[126] UE 307 – ICNU/200/Mullins/13, lines 6-7.
[127] *Id*. at lines 7-9.

Company must actually follow through on its directive from the Commission. The Company has continued to make several modeling changes throughout this docket, in direct contradiction of the previous year's order. This is unacceptable. In an increasingly complex and complicated docket, it is imperative that the Company work with the parties to increase their understanding of convoluted changes to calculations and modeling.

CUB respectfully requests that the Commission extend the moratorium on modeling changes until the Company files its next general rate case, and asks that the Commission ensure that the Company makes no modeling changes in the interim. In the alternative, CUB requests that the Commission direct the Company to work with parties by providing a list of all changes, corrections, updates, and changes to modeling that it makes from one TAM to another. Hiding changing calculations deep in voluminous workpapers is insufficient. In a similar manner to PGE's practice in its AUT filing, PAC should be ordered to create a list of all variations that differ from the previous year's filing.[128]

F. *Conclusion*

For the foregoing reasons, CUB urges the Commission to reject the Company's modeling and evaluation of EIM benefits, reject the Company's modeling and evaluation of PURPA QF contracts, order the Company to remove any impact from post 2013 IRP coal plant take or pay contracts, reject the Company's DA-RT modeling adjustment, and extend the current moratorium on GRID modeling changes until after the Company's next general rate case.

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[128] *See* UE 307 – CUB/200/McGovern 8-9.

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Respectfully submitted,

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