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Oregon Public Utility Commission
201 High Street, SE, Suite 100
Salem, OR 97301-3398

RE: UM 2011 Comments on E3 Report and Staff Comments

Dear Commission and UM 2011 Stakeholders:

NewSun Energy LLC (NewSun) makes these comments in response to the E3 Report posted to this docket on December 15, 2020, E3's presentation on December 17, 2020, the Staff Opening Comments posted on January 14, 2021, and the February 24, 2021 stakeholder workshop. NewSun does not feel that it has enough clarity around Staff's proposal and believes that additional process and discussion is needed in this docket and/or that the Public Utility Commission (PUC) should engage in a special process to further examine some of these important topics, namely the cost of system reliability failures and the scarcity of certain capacity resources in the development pipeline. NewSun appreciates E3's and Staff's work on this topic, but remains concerned that the following topics are insufficiently addressed or considered:

1. The cost of system reliability failure events.

Inadequate capacity could cost ratepayers billions in market exposure to soaring energy costs and reductions in economic growth due to blackouts. The value of capacity should accurately reflect these system reliability failure events.

2. The scarcity in the development pipeline in determining the cost of the new resource.

If a resource does not exist, cannot be built within an appropriate timeline, or is otherwise impossible to build due to regulatory or legal barriers, then it should not be used to determine the new resource cost. The new resource cost needs to be evaluated in light of these development pipeline issues relative to other resources.

3. The timing of the resource sufficiency/deficiency demarcation date.

4. The significance of data inputs to ELCC.

This docket was opened as a generic capacity valuation investigation. It is essential that whatever methodology emerges from this process send the correct market signal in order to stimulate the appropriate level of investment in additional supply-side resources, demand response, energy efficiency or other resources. The topics discussed herein are fundamental to appropriately valuing capacity. If these topics, particularly the first two, do not inform the

capacity valuation methodology, then it will undermine the purpose of this docket and fail to appropriately value capacity. Absent such an examination, NewSun recommends a special PUC process to examine these important topics.

1. The Cost of System Reliability Failure Events

The capacity valuation methodology should account for the cost of system reliability failure events to ratepayers. Utilities determine capacity needs based on a reliability target, typically being a 1-day-in-10-year standard, which is the equivalent of 2.4 hours per year loss of load expectation. The PUC should evaluate whether current planning metrics accurately account for changing circumstances due to climate change,¹ how much it costs ratepayers when outages occur, and how much it costs ratepayers if the planning goal is not achieved. Since the early 2000s California energy crisis, it has been apparent that the cost of unreliable energy is not simply limited to the frequency and duration of firm load shedding events, but also the market exposure to unanticipated high power costs,² and reductions in economic growth as a result of such blackouts. “[C]onservatively, the total costs [of the California energy crisis] can be placed around \$40 billion to \$45 billion or around 3.5% of the yearly total economic output of California.”³

While the value of reliable capacity is defined in part by the cost of the resources needed to fill that capacity, it is also defined by the price ratepayers are willing to pay for it. And the price ratepayers are willing to pay is directly influenced by the costs ratepayers will endure if they are without it. This is especially true, if and/or when a utility is faced with a situation where capacity is desperately needed in the near-term and no resource is able to fill that need (as explained in the next section). NewSun does not see how this value is captured in the proposed capacity valuation methodology. However, NewSun believes that the cost of these reliability events could be included in the capacity valuation methodology through a calculation that takes into account the probability of reliability failure events. That in turn should inform other PUC processes like integrated resource planning or requests for proposals.

¹ Special Public Meeting, UM 2011 at 2:10:26 (Dec. 17, 2020) (E3’s Zack Ming responding to Commissioner Tawney’s question about whether we should be worried about the data underpinning the ELCC accurately accounts for changes due to changing climate with an “emphatic, yes” and noting that the current standard practice doesn’t do as good a job accounting for this as it should.)

² Kevin Carden, Nick Wintermantel and Johannes Pfeifenberger, National Regulatory Research Institute, *The Economics of Resource Adequacy Planning: Why Reserve Margins Are Not Just About Keeping the Lights On* 1 (Apr. 2011) available at <https://pubs.naruc.org/pub/FA865D94-FA0B-F4BA-67B3-436C4216F135#:~:text=one%20event%20in%2010%20years,LOLE%20in%20events%20per%20year.&text=%E2%80%96For%20this%20definition%2C%20the%201,generally%20involve%20multiple%20outage%20events>.

³ Christopher Weare, Public Policy Institute of California, *The California Electricity Crisis: Causes and Policy Options* 3-4 (2003) available at https://www.ppic.org/content/pubs/report/R_103CWR.pdf.

2. Scarcity in the Development Pipeline in Determining the Cost of the New Resource

The proposed methodology has not yet addressed the scarcity of resources in the development pipeline. E3 recommends that the starting point for valuing capacity during the resource deficiency period be the net resource cost of the lowest net cost resource available to the utility, and Staff Comments that this resource likely continues to be a natural-gas-fired combustion turbine.

NewSun first notes that it needs additional clarity around what E3 means when it recommends basing capacity valuation on the “net resource cost” as opposed to the “net cost of new entry.”

The capacity valuation methodology should account for the relationship between the timing of the capacity need and whether there are sufficient resources in the development pipeline to achieve that timeline (or other barriers to development of that resource such as regulatory or legal restrictions that might prevent its existence). This can be illustrated in a couple ways.

First, if a utility has a need for capacity, but there are no new gas facilities in the development pipeline and it is impossible develop a new facility before the date of that capacity need, then that gas resource should not be used to determine capacity value.⁴ Rather, other capacity resources should be reviewed to see whether they can meet that need. Alternatively, if such a resource can only be developed within that timeline at a higher cost (in order to accelerate development), then the capacity cost of that resource should include those additional acceleration costs. An examination of a couple interconnection queues actually shows very few natural gas facilities in the current development pipeline, including only two in Bonneville Power Administration’s queue.⁵

Second, if a utility has a 1000 MW capacity need but can only meet 500 of it with a gas turbine, then the resource cost should reflect the stack of resources that are realistically available to meet the need.

3. Resource Sufficiency/Deficiency

Staff recommends that the sufficiency/deficiency demarcation date be standardized and set at 3 years out. A utility would be considered “resource sufficient in year one of a PPA. . . and will be resource deficient starting in year four of the PPA,” with a “ramp up during years two and three

⁴ Special Public Meeting, UM 2011 at 2:14.58 (Dec. 17, 2020) (E3’s Zack Ming: “If you can’t build a resource, of course, you can’t include it in the calculation and you shouldn’t be basing the resource cost off of it. But if you can build a resource, that resource should be included and it is not necessarily inconsistent [with deep decarbonization] to build these types resources particularly if they’re. . . compatible with some sort of zero-carbon fuel like hydrogen or biogas.”).

⁵ See <https://www.bpa.gov/transmission/Doing%20Business/Interconnection/Pages/default.aspx>.

of the sufficiency period so that a capacity adder equal to 1/3 of the deficiency period capacity value applies in year two and a capacity adder equal to 2/3 of the deficiency period value applies in year 3.”⁶ Staff justifies this proposal using previous trends in major resource acquisitions over the last 10 years which show, for example that Portland General Electric Company had a total of 4 acquisitions, or one acquisition every 2.5 years. Staff’s proposal is a departure from the current methodology, which sets the resource sufficiency/deficiency date based on the date of the next proposed utility acquisition in its IRP and provides zero capacity payment in the sufficiency period and full capacity payments in the deficiency period.

NewSun appreciates Staff’s acknowledgement that there is always some sort of a need, and could support this practical approach if some additional clarity is provided. As a preliminary note, NewSun is concerned that this approach will fail to provide QFs with a payment of full avoided costs in the event that a utility recognizes a resource need sooner than three years. Additional clarity is sought on the following topics as well:

- A. When does “year one” start in this methodology: (1) At the acknowledgement of the most recent IRP, (2) upon execution of the PPA, (3) upon commencement of the actual power sales under the PPA?

Staff’s response to this question, at the workshop, was that it would be answered in subsequent dockets like UM 2000 for PURPA projects or in other application-specific contexts. At the same time, however, it seemed like Staff was proposing that year one begin at the commencement of power sales under a PPA (or option #3 above). This question is particularly relevant in developing the methodology in this case, and NewSun does not believe that commencing year one at power sales sends the appropriate signal because the generator will rarely be paid the full capacity value.

Historically, the sufficiency/deficiency demarcation date for PURPA avoided costs is set in the IRP and imbedded into the avoided cost schedules in a post-IRP avoided cost update filing. For example, in PacifiCorp’s last IRP, acknowledged in a PUC order dated June 8, 2020, it noted a renewable capacity need in 2024, which was then pulled into its avoided cost schedule. This remains the same until the next IRP acknowledgement approximately 2.5 years later. During that time qualifying facilities can then review those avoided costs and determine whether they can develop a project that is economical at those rates. There is usually, therefore, a little bit of a lag between when those prices are published and when a project will negotiate and execute a contract and develop a project to serve that need. Further, while some QFs may be able to execute a contract and begin power sales nearly immediately, others may not execute a contract until a couple years later and need time to finish developing the project.

If the sufficiency/deficiency demarcation date will always be 3 years after power sales begin, then it would be the equivalent of the IRP stating that the resource need is 6-7 years in the future rather than, what staff notes is the historical precedent of approximately one resource acquisition every 3 years. This is so because even if a QF signs a contract immediately after IRP

⁶ Staff Comments at 6 (Jan. 14, 2021).

acknowledgement, it will still need a minimum 3-4 years to bring the project online, then need to wait another 3 years before receiving a full capacity payment. In any event, it is important to consider the impact of this timing question in determining the avoided cost methodology, and that should be investigated in this docket.

- B. Is the scale of utility acquisitions accounted for in determining the 3 years (i.e., did a utility delay acquisition when it might have needed it, but then acquired a large quantity at a later date)?

This question was not discussed in the workshop, but the concern here is that the larger the resource acquisitions, the more likely it is that more and earlier resource acquisitions should have taken place. Such a trend would show that a shorter than 3 year sufficiency/deficiency demarcation date should be used. NewSun has not independently evaluated the historic utility IRPs and resource acquisitions but simply highlights this concern for Staff investigation.

4. Significance of Data Inputs for ELCC

Finally, the ELCC values used to determine how much capacity a resource provides should be based on as many years of solar insolation data as is available and reflect both the geographic diversity and the interannual production.⁷ It should not be based on a single facility or a single year.

NewSun also seeks additional clarity from Staff on its proposal to use uniform ELCC across utilities id a capacity market is developed in the Northwest. Is staff proposing that each utility will use the same ELCC *methodology*, or the same ELCC *values*? What impact does staff believe this will have on the individual ELCC values for each utility?

Conclusion

This capacity valuation investigation should be fully informed by a robust discussion of the above questions. Absent any such discussion in this docket, the PUC should engage in a special process to further examine some of these important topics, namely the cost of system reliability failures and the scarcity of certain capacity resources in the development pipeline.

Respectfully Submitted,

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⁷ Special Public Meeting, UM 2011 at 2:01:10 (Dec. 17, 2020).