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A DIVISION OF PACIFICORP

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May 5, 2017

VIA ELECTRONIC FILING

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

Attn: Filing Center

RE: UM 1716 —PacifiCorp's Opening Testimony

PacifiCorp d/b/a Pacific Power encloses for filing in the above-referenced docket its Opening Testimony.

If you have questions about this filing, please contact Natasha Siores at (503) 813-6583.

Sincerely,

R. Bryce Dalley
Vice President, Regulation

Enclosures

Docket No. UM 1716
Exhibit PAC/300
Witness: Rick Link

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

PACIFICORP

Opening Testimony of Rick Link

May 2017

OPENING TESTIMONY OF RICK LINK
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Q. Please state your name, business address, and present position with PacifiCorp d/b/a Pacific Power (PacifiCorp).

A. My name is Rick Link. My business address is 825 NE Multnomah Street, Suite 600, Portland, Oregon 97232. My current position is Vice President, Resource and Commercial Strategy.

QUALIFICATIONS

Q. Please describe your education and professional experience.

A. I received a Bachelor of Science degree in Environmental Science from Ohio State University in 1996 and a Masters of Environmental Management from Duke University in 1999. I have been employed with PacifiCorp since 2003. I have held positions in market fundamentals, financial valuation, planning, and origination. Currently, I oversee PacifiCorp's integrated resource plan (IRP), development of long-term commodity price forecasts, origination and evaluation of new structured contracts, long-term resource procurement, and long-term load forecasting. Before joining PacifiCorp, I was an energy and environmental economics consultant for ICF Consulting (now ICF International) from 1999 to 2003.

PURPOSE OF TESTIMONY AND RECOMMENDATION FOR PHASE II

Q. What is the purpose of your testimony?

A. My testimony responds to new issues raised at the January 31, 2017 hearing (the Hearing), responds to the straw proposal attached to Order No. 17-085 (the Straw Proposal), and provides process recommendations for the next phase of this docket.

Q. What does PacifiCorp propose for the next phase of this proceeding?

A. PacifiCorp understands that Phase II will result in the calculation of utility-specific resource value of solar (RVOS) values. PacifiCorp proposes the Commission direct each utility to make a compliance filing showing its RVOS value using the inputs specified in Order No. 17-085. This process is similar to how avoided cost rates are set. In this case, recognizing that this is the first calculation of utility-specific RVOS values, it would be appropriate for the Commission to investigate the individual compliance filings on parallel timeframes. Separate compliance filing dockets are appropriate for Phase II because the individual utilities are differently situated with regard to how the data required for the RVOS calculation will be generated, and the information necessary to calculate the individual RVOS values is likely to contain confidential information that would be inappropriate to have made available among the utilities.[1] PacifiCorp supports the treatment of the market price response, hedge value, and security, resiliency, and reserves elements outlined in the Straw Proposal. PacifiCorp clarifies, however, that these elements should not be included in the compliance filing calculations. To the extent that the utilities are directed to report on any preliminary results of technical workshops, PacifiCorp supports making those reports through filings in UM 1716.

Q. Is PacifiCorp's proposal similar to other price-setting activities undertaken by the Commission?

A. Yes. When the Commission sets avoided cost rates applicable to qualifying facilities

[1] Confidential information could include: market price forecasts, market position resulting from the load and resource balance, transmission rights, and resource attributes such as minimum operating level and reserve capability.

(QFs) under the Public Utility Regulatory Policies Act of 1978 (PURPA) for each utility, it does so in utility-specific filings as opposed to generic investigations. Policy issues associated with avoided cost rates have often been addressed through generic investigations, with the outcomes of the Commission's policy determinations applied in utility-specific filings. Similarly, in the avoided cost context, the inputs each utility uses to calculate avoided costs are determined in utility-specific proceedings through the IRP process. Given the similarities between setting avoided costs and developing the RVOS, the Commission should take a similar approach to developing utility-specific RVOS.

GENERAL COMMENTS ON THE STRAW PROPOSAL

Q. Does PacifiCorp support the Commission's Straw Proposal?

A. In general, yes. PacifiCorp supports the majority of the methodologies set forth in the Straw Proposal for the calculation of RVOS elements. PacifiCorp's position, however, will ultimately be informed by how the RVOS is applied. While there appears to be some certainty that the RVOS will be used to determine compensation for some solar generation[2], it is still not clear the exact role the RVOS will play in, for example, setting the bill credit rate for the community solar program established by Senate Bill (SB) 1547. PacifiCorp's position on each element and the manner in which the RVOS is updated may change depending on the ultimate context in which the RVOS is applied.

[2] UM 1716 Hearing Transcript (TR) 28, lines 11-15 (Savage). Stating that compensation is one of the potential uses for the RVOS.

Q. Do you agree with the Straw Proposal requirement for utilities to conduct a 25-year analysis that will be updated every two years or upon petition?

A. PacifiCorp accepts this recommendation but has some continued concern with performing a 25-year analysis. There is a tremendous amount of uncertainty in assumptions used for the RVOS calculation, and this uncertainty increases significantly further out in time. In particular, as programs using the RVOS are nascent and developing, and as the RVOS methodology is evolving, it makes sense to use shorter timeframes and more frequent updates to minimize locking in inaccurate estimates over an extended period of time. The initial parameters for establishing the RVOS should be conservative and should allow for frequent updates to accommodate changes in the market. Accommodating frequent updates would alleviate some of these concerns associated with performing a 25-year analysis.

Q. Please describe the utility scale solar proxy method proposed by Mr. Olson.

A. Mr. Olson proposed replacing certain RVOS elements—hedging, environmental compliance, renewable portfolio standards (RPS) compliance, energy generation, capacity integration and ancillary services, administration, market price response—with the cost of a utility scale solar resource built in a similar location.[3] Mr. Olson noted that Arizona and Nevada are moving toward using this methodology as their primary methodology, and not just as a check of another calculation.[4]

[3] TR 135-136 (Olson).
[4] TR 139 (Olson).

Q. Do you support the proposal for utilities to produce an alternative estimate of RVOS using a utility scale solar resource?

A. Yes. Utility scale solar resource costs could be an effective tool to establish a cap on the RVOS value. Assumptions for establishing an alternative estimate of RVOS using a utility scale solar resource could be based on either competitive solicitation processes in which bidders offer solar resource bids, or through the use of data contained in the utility's IRP. At a minimum, an RVOS based on a utility scale solar resource would provide a valuable reference point for evaluating the reasonableness of the RVOS developed under the methodology adopted by the Commission. This approach has the potential to greatly simplify the RVOS process and warrants further discussion in Phase II of this proceeding.

Q. How does Mr. Olson describe Staff's proposed methodology?

A. Mr. Olson explains that Staff's proposed methodology assumes a "generic solar resource" without "uncommon infrastructure," and that the evaluation is "almost like a PURPA-type of evaluation."[5]

Q. Do you agree that the RVOS methodology should assume a standard solar resource whose costs and benefits are determined similar to the avoided cost methodology used for PURPA?

A. Yes. However, the methodology should allow utilities flexibility in supplementing the cost for utility scale solar resources with data received through competitive solicitation processes, as available.

[5] TR 6, lines 3-10 (Olson).

COMMENTS ON EACH PROPOSED ELEMENT

Energy Value

Q. How does the Straw Proposal address estimating the marginal avoided cost of energy?

A. The Straw Proposal would require utilities to estimate the marginal avoided cost of energy using methods currently used for QF avoided costs (monthly values with on/off peak blocks). At a later date, Staff workshops will analyze potential modeling changes to estimate this cost at a smaller time interval.

Q. Do you agree with this approach?

A. Yes. PacifiCorp's Partial Displacement Differential Revenue Requirement (PDDRR) method for non-standard QFs currently estimates the marginal avoided cost of energy on an hourly basis and accounts for the specific characteristics of the proposed resources and PacifiCorp's system. The PDDRR method is thus reasonable and appropriate for determining the energy value of solar resources under consideration in this docket. While calculating avoided costs specific to each possible solar resource type or configuration would be burdensome, calculating the total avoided costs associated with a portfolio of solar resources is relatively straightforward. For purposes of calculating an RVOS, I accept aggregating the PDDRR results to monthly values with on- and off-peak blocks to reduce the administrative burden and ensure consistency with current QF avoided costs.

Q. Does Mr. Olson take a position on the need for an hourly level of data granularity in the future?

A. Yes, Mr. Olson suggests that "it would make a lot of sense"[6] for utilities to examine hourly values.

Q. Do you agree with Mr. Olson's suggestion?

A. In part. Determining the appropriate level of granularity of data is a trade-off between precision and administrative burden. To the extent that the administrative burden of gathering hourly data can be minimized, and the benefit of the additional precision is meaningful, I agree that hourly values are worthwhile. Continued evaluation of these tradeoffs is reasonable. However, for some elements, it is unlikely that an hourly level of granularity will provide additional precision. For example, for the energy element, Mr. Olson made clear that "monthly average prices", also referred to as a "12x24 strip" are effectively equivalent to hourly modeling.[7]

Q. In addition to reduced administrative burden associated with producing hourly data, are there other benefits associated with less-than-hourly granularity for the value of energy?

A. Yes. Using data inputs that are aggregated to a block has the potential to avoid confidentiality issues that may arise with more granular data.

[6] TR 9, lines 8-10 (Olson).
[7] TR 14, lines 12-17 (Olson).

Q. Is your position supported by Staff witness Mr. Olson?

A. Yes. Mr. Olson stated at the Hearing that less-than-hourly data granularity might not impact the RVOS value much at this point in time.[8]

Q. Do you agree with the Straw Proposal that the utilities should model a range of hydro conditions?

A. No.

Q. Why do you disagree with the requirement to "model a range of hydro conditions to forecast energy prices," as set forth in the Straw Proposal?

A. While regional hydro conditions can affect energy value, it is reasonable to expect both upward and downward changes in energy value under low hydro and high hydro conditions. Over time, variation in hydro conditions are expected to gravitate to a mean, or expected level, of hydro generation. The same concept would apply to any number of variables that can affect energy prices (i.e., variation in load, wind generation, solar generation, natural gas prices, unit outages, etc.). It is not feasible to adopt, for purposes of the RVOS, a comprehensive matrix of variables that might influence locational energy value, and it is not reasonable to attempt to isolate potential energy value impacts to a single variable such as hydro generation. The RVOS methodology should be developed to produce a reasonable estimate of energy value without over complicating the calculations, particularly when considering the novelty of the methodology and the potential programs where it could be applied. At this time, it makes sense to simplify the methodology to the extent possible.

[8] TR 9, lines 10-11 (Olson).

Modeling a range of hydro conditions would add complexity without necessarily increasing accuracy.

Generation Capacity

Q. How does the Straw Proposal address determination of capacity value?

A. The Straw Proposal would require utilities to use their IRP sufficiency/deficiency demarcation to determine a capacity value consistent with the Commission's standard QF avoided cost guidelines.

Q. Do you agree with this approach?

A. The preferred portfolio from PacifiCorp's most recently filed IRP or IRP Update is the best starting point for determining the demarcation between resource sufficiency and deficiency. Using the most recently filed IRP ensures that the most current timing of future resource needs is as up to date as possible. In addition, it is appropriate to account for changes since the IRP was prepared, including new contracts and committed resources. The Company's PDDRR methodology for non-standard QFs accounts for all of these factors.

Q. Do you agree with Mr. Olson's assertion that "[i]f a utility has a net long capacity position such that the first avoidable generation capacity resource isn't for five years, then the first five years of the lifetime of that solar installation is providing very little if any value to the utility in the form of avoided capacity"[9]?

A. Yes. For instance, during the sufficiency period, the PDDRR methodology used for non-standard avoid costs includes deferral of front office market transactions, which

[9] TR 26, lines 19-25 (Olson).

represent capacity with a relatively low avoided cost.

Q. Do you also agree that incorporating a resource deficiency year into the RVOS methodology adequately captures the avoided capacity value solar photovoltaic (PV) brings to the utility system?

A. Yes, although the methodology must also reflect the cost of the specific forecasted resource additions in the resource deficiency year and the size of the need. PacifiCorp's PDDRR methodology for non-standard QFs accounts for these factors.

Q. How do you respond to suggestions made at the Hearing that solar PV should be removed from load forecasts for purposes of determining the resource deficiency year?

A. Utilities should have flexibility in determining how to best treat solar PV resources in their load and resource balances, which are used to forecast a resource deficiency year. Each utility's load and resource balance should account for solar PV resources, but utilities should have flexibility in determining whether it is most appropriate to treat solar PV resources as either a load or as a resource, accounting for the capacity contribution value of different types of solar PV resources. This will ensure that utilities have flexibility in establishing an approach that is best suited to its available data and modeling tools used to forecast resource deficiency periods.

Q. Do you agree with Renewable Northwest and The Alliance for Solar Choice that avoided cost pricing is not a good benchmark for the RVOS methodology because QFs are "more of a baseload resource" and the RVOS methodology is designed for a resource at the end of a feeder or "at the very edge of the network"[10]?

A. No. First, solar QFs are not baseload resources because they provide energy only on an intermittent basis. Second, each of the Oregon utilities has standard avoided cost rates specifically designed for solar resources. Third, the use of the RVOS has not been determined. While the RVOS can and may be used for distributed solar resources, it is highly likely that the RVOS will also be used, in some form, for calculating the bill credit rate for the community solar program, which contemplates projects up to three megawatts in size.

Fundamentally, the RVOS and avoided costs are both valuing energy generated by a third party and delivered to the utility. Consistency between the RVOS methodology and the avoided cost methodology is important as the Commission considers the application of the RVOS and the potential for gaming in the solar market, which is plausible if solar project developers are able to choose between two different price streams to value the energy from the same project.

[10] TR 38, lines 7-8 and 15-17 (Gilfenbaum).

Q. Is the cost-effectiveness analysis used for energy efficiency or demand response programs a better benchmark than avoided cost pricing, as suggested by Mr. Gilfenbaum?[11]

A. No. The RVOS is a valuation of the output of third-party generation to the utility system. Energy efficiency and demand response represent reductions in energy use. While energy efficiency always reduces a customer's usage of the system, distributed generation is simply the substitution of generation by customers for generation by the utility. With distributed generation, less electricity is not required to meet customers' needs, rather the same amount of electricity is required but it is supplied by different resources. Thus, the use of avoided cost pricing as a benchmark is a better and more efficient benchmark of RVOS than using cost-effectiveness analysis traditionally used for energy efficiency programs.

Transmission & Distribution (T&D) Capacity

Q. How does the Straw Proposal address T&D infrastructure?

A. The Straw Proposal directs the utilities to develop a system-wide average of the avoided or deferred costs of expanding, replacing, or upgrading T&D infrastructure attributable to incremental solar penetration in Oregon service areas.

Q. Do you agree with this approach?

A. Yes. While I agree that this is an appropriate element for inclusion in the RVOS, it should be clear that the value should only be non-zero if there are actual T&D investments that can be deferred with incremental additions of solar resources. This

[11] TR 38, lines 20-22 (Gilfenbaum).

is due to the location-specific nature of T&D capacity deferral benefits.

Q. Do you agree with Mr. Olson that the value of deferred T&D capacity is "very locational"[12]?

A. Yes. As Mr. Olson elaborated, T&D capacity deferrals depend on the need for new—and likely expensive—investments in particular areas being avoided. As Mr. Olson elaborated, in many utility service territories, and this is true for PacifiCorp, the system is built out in many places and there is not an expected need for additional T&D investment in many locations.

Q. Do you agree with Mr. Olson that using an average avoided T&D deferral value "undercompensate[s] the owner of the [solar PV] system in the hot spot and overcompensate[s] in other areas?[13]"

A. Yes. However, as a starting point and for administrative simplicity, PacifiCorp supports the development of an Oregon-wide proxy applied to incremental solar penetration in Oregon service areas.

Q. Does PacifiCorp support a future workshop or technical conference to look at ways that increasing penetration of solar can impose T&D costs?

A. Yes.

Line Losses

Q. How does the Straw Proposal address line losses?

A. The Straw Proposal would require the utility to develop estimates of avoided marginal line losses attributable to increased penetration of solar PV systems in

[12] TR 41, line 12 (Olson).
[13] TR 47, lines 18-19 (Olson).

Oregon service areas reflecting the hours that solar PV systems are generating electricity.

Q. Do you agree with this approach?

A. Yes. I agree that it is appropriate for utilities to provide proposals including justification for line loss calculations that meet the accepted definitions of this RVOS element.

Administration

Q. How does the Straw Proposal address administrative costs?

A. The Straw Proposal recommends that utilities develop estimates of the direct, incremental costs of administrating solar PV programs including staff, software, interconnection, and other utility costs.

Q. Do you agree with this?

A. Yes. I agree that it is appropriate for utilities to provide proposals including justification for incremental administrative costs associated with the RVOS.

Market Price Response

Q. How does the proposal address the market price response element?

A. The Commission proposes that the market price response element will be evaluated with the utilities developing preliminary estimates of the market price response impact and reporting on the preliminary estimates in Phase II.

Q. How do you respond?

A. Given the very limited data available to support a wholesale market price impact driven by solar resource additions in Oregon, it is appropriate to address this topic more fully in Phase II of this proceeding.

Q. Do you have any recommended changes to the Straw Proposal for this element?

A. Yes. In the Straw Proposal, the Commission assumes that the workshops and technical conferences will result in an empirically sound way to estimate the impact of incremental solar generation in Oregon service areas on wholesale market prices. However, another potential outcome is that the parties come to an agreement that, at this time, data supporting this analysis is not sufficient to develop an empirically sound method. My recommendation is that the Commission direct that workshops be convened, but not direct the utilities to develop preliminary estimates until the outcome of those workshops is known. If there is a measurable impact, I would expect it to be very small.

Q. Why do you think it is possible that the market price response might be zero or close to zero?

A. Because much of the market price response, negative or positive, is already baked into the energy value through the development of a long-term price curve. As I testified in the Hearing, when PacifiCorp develops its forward price curve, it is already projecting that states meet their RPS requirements and capturing increases in solar penetration that affect prices and price relationships going forward. It therefore becomes critical to understand what is already included in the development of the energy value that is providing the baseline for any market price response. The incremental difference when adding private generation solar projects in Oregon is likely to be close to zero.

Q. Does the market price response associated with solar PV have the potential to be both a loss and a gain to the utility?

A. Yes. As acknowledged by Mr. Olson at the Hearing, for vertically integrated utilities, the impact of changes in market prices caused by increased solar PV will depend largely on whether the utility is a net-seller or net-buyer of market energy.[14]

Q. Should the RVOS methodology reflect both the potential gains and losses associated with a market price response to increased solar PV?

A. To the extent there are gains and losses, both should be reflected in the RVOS methodology. Mr. Olson also acknowledged, however, that the market price response element "probably doesn't have a very big impact on the overall value of solar in a place like Oregon where the utilities are largely balanced in their positions."[15]

Q. Is it possible that the market price response element will eventually have a larger impact on the value of solar in Oregon?

A. Yes, it is possible, but as Commissioner Savage stated at the Hearing, the market impact of solar PV penetration in Oregon is likely to be dwarfed by the market impact of solar PV penetration in California,[16] which suggests that even if solar PV penetration increases rapidly in Oregon, it is not necessarily the case that Oregon solar will drive major changes in market prices.

The process set forth in the Straw Proposal balances the likelihood that the impact currently is low with the need for further evaluation to determine an

[14] TR 69, lines 7-14 (Olson).
[15] TR 70, lines 16-19 (Olson).
[16] TR 78k lines 14-15 (Savage). Commissioner Savage referred to the relative positions of Oregon and California on solar penetration as "Bambi and Godzilla" with Bambi presumably referring to Oregon.

appropriate calculation methodology to account for the possibility of an increased value associated with the market price response.

RPS Compliance

Q. How does the Straw Proposal address RPS compliance?

A. The Commission directs utilities to estimate an avoided value based on reduction in load attributable to incremental solar generation in Oregon service areas.

Q. Do you agree with this approach?

A. Yes, with two clarifications. First, the Commission should make clear that this value may be zero if, as applied, the utility will not realize any RPS benefit. If the RVOS is applied to rooftop solar that does not offset retail load or produce renewable energy credits (RECs) assigned to the utility, then the utility will not realize any RPS benefit and this RVOS element should be set to zero. Second, it should be clear that the avoided cost of RPS compliance could be derived from either purchasing RECs or the cost of a marginal renewable resource. In the Straw Proposal, the Commission indicates in the "Definition" column that the definition of the element is the avoided net incremental cost of purchasing RECs to satisfy the RPS. However, in the "Methodology" column, the Commission references the levelized cost of the marginal renewable resource installed in the year when utilities need to act to comply with RPS requirements. The Commission should make clear that this value could be based on the avoided need to purchase RECs or the avoided need to acquire a new resource.

Q. Do you agree with Portland General Electric's (PGE's) recommendation to identify a sufficiency/deficiency demarcation for RPS compliance purposes?[17]

A. Yes, assuming PGE is referring to the renewable resource sufficiency/deficiency demarcation. The RPS benefit associated with a reduction in load is realized by extending the period of time over which the utility's existing REC bank will be drawn down. The value is actually realized in the year when the utility needs to act to acquire RECs or a renewable resource. The avoided RPS value in the RVOS should reflect this.

Integration and Ancillary Services

Q. How does the Straw Proposal address integration and ancillary services?

A. The Commission proposes that utilities will make estimates of integration costs based on acknowledged wind and solar integration studies and that utilities will assign a value of zero to ancillary service benefits from increased penetration of solar PVs. The Commission also directs Staff to convene a workshop/technical conference to evaluate the incremental system benefits from enabled advanced inverters and ways to evaluate those benefits.

Q. Do you agree with this approach?

A. Yes.

Q. Does Mr. Olson address integration and ancillary services in his testimony at the Hearing?

A. Yes. Mr. Olson describes the potential of small-scale solar resources to respond to

[17] TR 86, line 3-5 (Goodspeed).

grid needs, including frequency response. Mr. Olson goes on to state that if a solar PV installation could provide those services, it would be a benefit to the utility that should be examined in a separate proceeding.[18]

Q. Do you agree with Mr. Olson?

A. Yes.

Q. In assigning a value to grid benefits associated with solar PV installations, how should the availability of less expensive grid-services options be taken into account?

A. I agree with Mr. Olson that the value of solar grid services should be set at the cost of the lowest cost alternative.

Hedge Value

Q. How do you respond to the approach outlined in the Straw Proposal for the hedge value element?

A. As I discussed in the hearing, I agree conceptually that this element is appropriate to include in the RVOS methodology and that there is some long-term hedge value associated with solar resources. However, this value is likely to be zero or very close to zero. I appreciate that the Commission is proposing to convene workshops to establish a methodology for determining a preliminary value. I recommend that the Commission clearly indicate that an acceptable outcome is that parties agree that this value may be set to zero if the value is de minimis.

[18] TR 104 (Olson).

Q. Do you wish to address the testimony on hedge value provided from any of the witnesses at the Hearing?

A. Yes. Mr. Gilfenbaum suggests that the use of financial instruments is not the only way to hedge against fuel price volatility, instead suggesting that fuel price volatility "naturally" is reduced through resource diversification.[19]

Q. Do you agree with this assertion?

A. Yes, conceptually. However, as noted by myself and others at the Hearing, this value could be tremendously difficult to establish and is likely to be very close to zero. PacifiCorp would look forward to more detailed discussions on these issues in future workshops.

Environmental Compliance Costs

Q. How does the Straw Proposal address environmental compliance costs?

A. The Commission would require utilities to estimate avoided environmental compliance costs based on a reduction in carbon emissions from the marginal generating unit. To value future anticipated standards, utilities would use the carbon regulation assumptions from their IRP.

Q. Do you agree with this approach?

A. No. I agree that to the extent there are actual carbon costs avoided, those are appropriately included as an element of the RVOS. However, speculative assumptions about future requirements should not be used to establish pricing in long-term contracts. While an important consideration in resource planning is to assess the

[19] TR 134, lines 17-24 (Gilfenbaum).

implications of potential future policy scenarios, it is not appropriate in the context of locking in a long-term pricing stream. In the integrated resource planning process, PacifiCorp tests a range of carbon policies to assess how those policies might affect a plan over a range of different potential scenarios and outcomes. The IRP does not establish pricing streams for power contracts. It does not make sense to lock in payments based on regulatory requirements that may or may not materialize ten or fifteen years from now. Also, to avoid unnecessary complexity, I recommend that the Commission avoid being prescriptive in assigning specific probabilities to different energy futures. This process would be inherently speculative and controversial. My recommendation is that this issue is better addressed by ensuring that the RVOS is updated on a regular enough basis to capture future changes in environmental policy.

Q. Do you agree with Mr. Olson that the Commission should act consistently with regard to the policy associated with environmental compliance costs?[20]

A. Yes. Mr. Olson states that determining future avoided environmental compliance costs is like "reading the tea leaves on future policy"[21] at both the state and federal level. This is a particularly apt analogy given the marked change in direction from the current administration with regard to climate change policies. At this point in time, assumptions regarding future environmental regulation, particularly carbon, are highly speculative and should not be baked into the RVOS until they are more concrete and imminent.

[20] TR 125, line 25 (Olson).
[21] TR 125, line 18-21 (Olson).

Security, Reliability, and Reserves

Q. How does the Straw Proposal address security, reliability, and reserves?

A. The Straw Proposal provides that this element shall be included but assigned a value of zero and that Staff shall conduct a subsequent workshop/technical conference to examine methodologies to quantify the value of benefits and the circumstances under which they are applicable, only considering the value provided to the utility system and value that is not already captured in energy, capacity, and ancillary services.

Q. Do you agree with this approach?

A. I continue to recommend that security, reliability, and reserves should not be included as an element of the RVOS since it is generally a benefit to an individual customer and not all utility customers. In light of this, I support assigning a value of zero currently, as recommended, and participating in workshops going forward.

Q. Does this conclude your testimony?

A. Yes.