BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1758

In the Matter of

PUBLIC UTILITY COMMISSION OF OREGON,

Report to the Legislature on Incentives for Development and use of Solar Photovoltaic Energy Systems.

COMMENTS OF SOLARCITY CORPORATION ON THE DRAFT SOLAR INCENTIVES REPORT

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Pursuant to the August 1, 2016 Message from Julie Peacock, SolarCity Corporation (SolarCity) hereby submits these comments on the *Draft Solar Incentives Report* filed by Commission Staff on July 28, 2016.

I. Description of SolarCity

SolarCity is a full service solar power provider for homeowners and businesses – a single source for engineering, design, installation, monitoring, and support. The company has more than 50 employees based out of our Portland warehouse and has installed over 4,000 net metered systems accounting for over 23 MW of capacity. SolarCity has approximately 13,000 employees nationwide and had installed solar energy systems for over 260,000 customers as of March 31, 2016.

II. Introduction and Summary

House Bill (HB) 2941 directs the Commission to evaluate Oregon programs that

incentivize solar photovoltaic (PV) energy and to recommend "the most effective, efficient and equitable approach to incentivizing the development and use of solar [PV] energy systems in this state."[1] For each program, HB 2941 directs the Commission to recommend "whether the program should be discontinued, modified or extended or should remain unchanged."[2]

In response to this directive, Commission Staff issued a Draft Solar Incentives Report (Staff Report or Report) on July 28, 2016. The Report determines, among other things, that "the current model for the solar [Net Energy Metering (NEM)] program may become unsustainable" based upon an alleged but unsubstantiated "cost shift" from solar NEM customers to nonparticipating ratepayers.[3] As a result, Staff recommends eliminating the current NEM program. Staff proposes replacing NEM with a "Solar Metering Program" that would eliminate netting of customer generation against consumption and instead charge customers the volumetric retail rate for all energy delivered to the customer and credit the customer on their bill for their generation using the location and utility specific resource value of solar (RVOS).[4] This compensation framework is typically referred to as a "buy-all/sell-all" contract.

While SolarCity appreciates Staff's significant efforts in generating the Report, we believe the Report suffers from a number of defects that lead to the erroneous conclusion that NEM should be eliminated and replaced with the above-described "buy-all/sell-all" program. As explained below, we are also concerned that Staff's proposed "buy-all/sell-all" program risks violating state requirements regarding limiting NEM and federal protections regarding customers' rights to serve onsite load.

[1] HB 2941, Sec. 2(1)(a).
[2] HB 2941, Sec. 2(1)(b).
[3] Staff Report at p. 10.
[4] Staff Report at p. 11.

As an initial matter, NEM is not an "incentive" but is rather a bill crediting mechanism that offers an effective means of providing fair and accurate compensation for customer-generation. As a result, NEM does not appear to fall under the category of programs HB 2941 directs Staff to evaluate in the Report.[5]

Moreover, the Report appears to deviate significantly from the requirements outlined in HB 2941. The Report identifies the factors HB 2941 directs the Commission to consider in its analysis,[6] and Staff developed a number of other factors as allowed for by HB 2941.[7] However, the two guiding principles Staff develops in interpreting these factors do not accurately reflect the requirements of HB 2941 and instead take an overly narrow approach to assessing the benefits of pro-solar programs and reflect an inaccurate view of the most efficient means of funding programs aimed at social and economic benefits.[8]

SolarCity therefore believes the Report could benefit from refocusing on the language of HB 2941. The statute directs the Commission to recommend the "most effective, efficient, and equitable approach" to encouraging solar;[9] consider how to minimize confusion and transaction costs for customers;[10] consider the costs borne by nonparticipants;[11] and assess the costs and benefits of each program.[12] SolarCity is confident that a reevaluation of NEM based on these requirements will lead Staff to conclude that NEM meets the requirements of HB 2941. In fact, reviewing NEM in light of these requirements shows that the program is the most effective, efficient and equitable approach to promoting solar, is the least confusing for customers, does not

[5] *See* HB 2941, Sec. 2(1).
[6] Staff Report at p. 1.
[7] Staff Report at pp. 4-5.
[8] *See* Staff Report at p. 5.
[9] HB 2941, Sec. 2(1)(a).
[10] HB 2941, Sec. 2(2)(b).
[11] HB 2941, Sec. 2(2)(c).
[12] HB 2941, Sec. 2(2)(e).

result in a cost shift to nonparticipants, and provides a net benefit to all customers and the utility.

III. NEM is Not an "Incentive" so It Should Not be Included in the Programs Evaluated in the Report.

HB 2941 directs the Commission to evaluate programs that "incentivize the development and use of solar [PV] energy."[13] As an important initial matter, it is necessary to point out that NEM is not an "incentive." Rather, NEM is a bill crediting mechanism utilized to compensate a customer-generator for their investment in a behind-the-meter distributed generation resource. Thus, NEM is an effective means of providing accurate compensation to customer-generators for clean excess energy that reduces transmission and distribution (T&D) costs and provides energy to NEM customers' surrounding neighbors. Labeling NEM an "incentive" risks mischaracterizing the program as a subsidy or benefit provided to customer generators when, in reality, the NEM compensation framework is not an incentive but rather an easy-to-understand method of accurately accounting for the value solar generation provides. Including NEM within the Commission's evaluation of solar incentives is not required by HB 2941.

IV. The Report Adopts Principles that are Inconsistent with the Analysis Required by HB 2941.

The Report lists two principles developed by Staff based on the factors identified in HB 2941[14] and a number of other factors created by Staff.[15] The two guiding principles developed by Staff are as follows:

- Ratepayers should not subsidize solar PV installations where there are no above-market costs. Owners of solar PV projects should receive compensation that reflects the value of solar to the utility systems and utility

[13] HB 2941, Sec. 2(1).
[14] HB 2941, Sec. 2(2)(a)-(f).
[15] *See* Staff Report at pp. 4-5.

ratepayers, including the environmental value of solar generation that helps meet any state and federal carbon emission mandates.

- Subsidies and incentives aimed at social and economic development benefits – such as jobs, health and environmental quality – should be funded by state taxpayers rather than a narrow class of utility ratepayers.[16]

While SolarCity appreciates Staff's efforts to develop policy recommendations based on an assessment of the current state of the solar industry in Oregon, we believe these two principles do not accurately reflect the requirements of HB 2941. Insistence that compensation only reflect "the value of solar to utility systems and ratepayers," and limiting environmental value to solar's ability to "meet any state and federal carbon emission mandates" reflects an overly narrow view of the most efficient way to address the health and environmental consequences of fossil fuel generation, an issue that goes far beyond renewable portfolio standards and emissions mandates. Assistance in meeting state and federal mandates reflects only a fraction of the environmental value solar provides. Assessing the full environmental costs of Oregon's portfolio of generation resources and recognizing the full benefit of solar is well within the capabilities of the Commission and should be done in order to generate policy recommendations based on a true and accurate assessment of the impacts of solar.

Additionally, Staff's determination that programs aimed at providing social and economic development benefits should be funded by state taxpayers rather than utility ratepayers does not reflect HB 2941's directive that the Commission recommend "the most effective, efficient and equitable approach" to incentivizing solar.[17] Distinguishing between taxpayers and ratepayers and insisting that pro-solar policy goals be carried out through the tax code would add significant unnecessary complexity and duplication of efforts by requiring consumers who seek

[16] Staff Report at p. 5.
[17] HB 2941, Sec. 2(1)(a).

to invest in renewable energy resources to engage in additional activities in order access state incentives for their investment, such as filling out additional tax forms, applications and other paperwork. This outcome would increase the burden on potential customer-generators and result in additional costs for installers during the sales and installation process with little apparent benefit. Increasing the burden and cost of investing in renewable energy resources is directly contrary to state efforts to expand access and use of renewable energy. Utility programs such as NEM are an efficient and well understood vehicle for encouraging energy conservation and investment in renewable energy generation by customers, and are therefore the most efficient means of executing programs aimed at promoting the social and economic development benefits of investment in distributed generation.

Given these concerns, SolarCity believes the two principles identified in the Report do not accurately reflect the directives of HB 2941. As discussed below, SolarCity believes the Report could benefit markedly from greater adherence to the language or HB 2941, and therefore respectfully requests that the above-noted principles be removed or reworded to more accurately reflect the legislative intent of HB 2941.

V. Evaluation of NEM Under the Clear Requirements of HB 2941 Leads to the Conclusion That NEM Should be Continued.

As noted above, SolarCity believes the Report could benefit from a return to the language of HB 2941. A review of the clear directives of the statute supports the continuation of NEM and underscores the extent to which the program adheres to the law's policy goals.

a. NEM is effective, efficient and equitable.

HB 2941, Section 2(1)(a) directs the Commission to recommend "the most effective, efficient, and equitable approach to incentivizing the development and use of solar energy systems in this state." Putting aside the question of whether NEM is an "incentive," NEM is clearly the most effective, efficient and equitable approach to increasing deployment of solar PV. The role of NEM in transforming Oregon's energy industry and empowering the state to achieve aggressive clean energy goals cannot be understated. As the Report notes, NEM has been responsible for the installation of nearly 10,000 projects in PacifiCorp, Idaho Power and Portland General Electric (PGE) service territories, accounting for more than 80,000 kW of capacity.[18] The ease with which suppliers can describe NEM to customers as part of explaining the fundamental value proposition stemming from their investment in solar resources during the sales process and the fact that the program generally requires only a single meter, which saves the time and expense of installing multiple meters merely for billing, make adoption of distributed solar a straightforward proposition for Oregonians.

While NEM policies can differ from state to state, the fundamental concept has been adopted in over 40 states and the District of Columbia.[19] Although solar policies vary across states, net metering—particularly at the residential level—is a near constant. As a result, NEM offers a common platform for solar providers to build their businesses upon as it allows multi-state providers to use common business models across states, creating economies of scale that continue to drive prices down for customers.

[18] Staff Report at p. 9.
[19] Freeing the Grid 2015, http://freeingthegrid.org/.

NEM is well positioned to effectively, efficiently and equitably contribute to progress toward Oregon's renewable energy goals. In SB 1547, the Oregon Legislature took a number of steps to expand renewable energy in the state by establishing a phase-out of coal by 2030,[20] expanding the state's renewable portfolio standard (RPS) to 50% by 2040,[21] and adding new requirements for energy efficiency, electric vehicle infrastructure and community solar projects.[22] Onsite renewable resources have a role to play in reaching these goals and NEM has proven an effective and efficient means of encourage distributed generation deployment. As discussed below, NEM is also an equitable solution as it does not cause a cost shift.

Any departure from NEM – such as the Report's proposed "Solar Metering Program" – runs the risk of decreasing deployment of solar, which would clearly run counter to public policy as expressed in SB 1547's 50% RPS mandate.[23] Staff's recommendation regarding NEM therefore risks hampering the state's ability to meets its aggressive renewable energy goals.

b. NEM's simplicity makes it easy for customers to understand.

Section 2(2)(b) directs the Commission to consider "[h]ow to minimize confusion and transaction costs" for participants. NEM is the least confusing option of all programs considered in the Report. The success of NEM throughout the county has, in many ways, been due to the program's simplicity. As noted above, the simple "running the meter backward" concept is easy for customers to understand and therefore has contributed markedly to solar adoption. Banking of excess kWh credits is also easy for consumers to understand as it is similar to treatment of cell phone minutes under common "rollover" plans. Both of these outcomes support the conclusion

[20] SB 1547, Sec. 1(2).
[21] SB 1547, Sec. 5 (as codified in ORS § 469A.052(1)(h)).
[22] SB 1547, Sec. 19, 20, 22.
[23] SB 1547 (as codified in ORS § 469A.052).

that NEM is simple and, therefore, decreases potential confusion and transaction costs during the sales process and afterwards.

In comparison, the other programs discussed in the Report offer significant additional complexity. In fact, Staff's proposed replacement for NEM is confusingly complex as it aims to compensate customers at a rate distinct from their retail rate and does away with the simple "running the meter backward" concept that customers have grown to associate with distributed solar. In order to accurately value the return on their potential investment in solar energy resources under a buy-all/sell-all framework, installers and customers would have to know how much energy is likely to be exported by the system, which requires detailed analysis with data that is often not readily available. This outcome would move the sales process towards greater complexity and transaction costs which is not the direction envisioned in Oregon statute.

SolarCity's experience has been that the easier a program is to understand, the greater likelihood businesses and homeowners will adopt solar and, in this regard, NEM has proven to be the simplest and, therefore, most effective program for encouraging the deployment of solar energy. Replacing NEM with the proposed "Solar Metering Program" would be a substantial step backward in terms of simplicity and customer understanding and would likely slow customer adoption of distributed solar.

c. NEM has not been shown to result in a cost shift to nonparticipating ratepayers.

Section 2(2)(c) states that, in developing recommendations, the Commission must consider the costs borne by nonparticipants.[24] Staff responds to this directive by stating that "the

[24] HB 2941, Sec. 2(2)(c) ("[T]he commission shall consider . . . [t]he Costs borne by persons who do not participate in programs that incentivize the development and use of solar [PV] energy systems.").

current model for the solar NEM program may become unsustainable given the potential for cost shifting when the value of solar energy is less than or more than the utility's retail rate."[25] However, Staff also admits that the value solar NEM projects provide to the utility system has not yet been quantified, and that the "resource value of solar" (RVOS) study the Commission is currently undertaking will provide the means to value solar.[26] Absent a clear understanding of the RVOS, it is therefore improper to speculate about the existence of a cost shift and premature for Staff to issue a recommendation to eliminate NEM based on this speculation.

The speculative nature of Staff's concern is particularly highlighted by Staff's admission that, "[i]t is possible that if the value of the solar energy exceeds the utility's retail rate, the cost shift may be reversed, from non-NEM customers to NEM customers."[27] This crucial observation should not be relegated to a mere footnote in the Report as it underscores the extent to which basing policy recommendations on the specter of an unsubstantiated "cost shift" risks unnecessarily compromising Oregon's most successful pro-solar policy. As Staff observes, it could be the case that ratepayers who do not participate in NEM do not bear any additional costs, but instead accrue benefits in the form of rate depression resulting from increased deployment of solar.

One specific concern raised by Staff in the context of cost shifting is recovery of fixed costs. In the Report, Staff speculate that "[c]ustomers that offset a portion of their monthly usage by producing their own energy end up purchasing less energy from the utility and therefore pay less of the utilities' fixed costs directly."[28] However, this concern appears to be misplaced.

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[25] Staff Report at p. 10.
[26] *Id.* at pp. 10-11; *See* UM 1716.
[27] *Id.* at p. 10, note 6.
[28] Staff Report at p. 10.

First, it has not been determined in Oregon what exactly the fixed costs are for each of the utilities regulated by the Commission, so it is inaccurate to assume that any customer who purchases less energy from a utility than they did in the past is no longer paying as much towards any particular utility's fixed costs.

Furthermore, it appears that Oregon IOUs are currently charging fixed charges that meet or exceed fixed costs, so Staff's concern over fixed cost recovery seems to be addressed. For example, Commission Staff recently opined in PGE's 2014 General Rate Case (GRC) that the settled upon residential customer charge of $10 per month was well above the summed marginal costs of universally accepted customer/basic charge components. Staff found that the universally recognized customer-cost/basic-charge components – "the meter, meter-reading and billing, the service drop between the local distribution transformer and the meter, and the distribution transformer itself, or at least a minimal share thereof in the event that the transformer can simultaneously serve more than one customer" – amounted to $9.63 a month.[29] Therefore, in the case of PGE, it appears the utility is already levying a fixed charge more than large enough to ensure every customer – including NEM customers – is paying their fair share of utility fixed costs. Staff similarly found in Pacific Power's 2012 GRC that a fixed charge of $9.35 was justified based on the fixed costs, while Pacific Power presently levies a $9.50 fixed charge.[30] Thus, Oregon IOUs already have in place fixed charges that ensure every customer, irrespective of their volumetric consumption or reductions in volumetric consumption, is paying their "fair share" of fixed costs because, as noted by Staff, those fixed costs are often less than current

[29] Docket UE 283, Staff /700 at pp. 11-12.
[30] Docket UE 246, Staff/1200 at pp. 7-8; *See* Pacific Power, Residential Delivery Service, Schedule 4, at p. 1, *available at* https://www.pacificpower.net/content/dam/pacific_power/doc/About_Us/Rates_Regulation/Oregon/Approved_Tariffs/Rate_Schedules/Residential_Service_Delivery_Service.pdf.

customer charges. Therefore, even if Staff's unsubstantiated claim of a cost shift is true, the IOUs already have in place protections to address the issue of fixed cost recovery identified by Staff.

d. Numerous studies continue to show that NEM is a net benefit.

Section 2(2)(e) states that the Commission shall consider "[t]he costs and benefits of each program."[31] In drafting this report, Commission Staff has not engaged in a full cost-benefit analysis of NEM nor of any of the other programs. As parties have shown in other proceedings before the Commission, NEM offers a remarkable number of benefits that would need to be accounted for in such an analysis. In the Commission's RVOS proceeding (UM 1716), The Alliance for Solar Choice (TASC) offered the table attached in Appendix A enumerating the many costs and benefits of NEM and the extent of parties' agreement on the inclusion of each.[32] Had the Report followed HB 2941's requirement that the costs and benefits for each program be considered, a similar enumeration of the costs and benefits of NEM would have been necessary.

A number of other public utility commissions (PUCs), national labs and think tanks around the country have engaged in cost-benefit analyses of NEM, and these studies have repeatedly found that NEM provides a net benefit.

A recent report from the Brookings Institution summarized these findings. Brookings stated,

> So what does the accumulating national literature on costs and benefits of net metering say? Increasingly it concludes – whether conducted by PUCs, national labs, or academics – that the economic benefits if net metering actually outweigh the costs and impose no significant cost increase for non-solar customers. Far

[31] HB 2941, Sec. 2(2)(e).
[32] TASC, Comments on Elements for Resource Value of Solar Framework, UM 1716 (July 20, 2016), Appendix A, pp. 13-14.

> from a net cost, net metering is in most cases a net benefit – for the utility and for non-solar rate-payers.[33]

The Brookings report goes on to list the many cost-benefit analyses carried out by public utility commissions as well as national labs and think tanks that have determined that NEM "is more often than not a net benefit to the grid and all ratepayers."[34] For instance, the Vermont Public Service Department conducted a study in 2013 which found that "net-metered systems do not impose a significant net cost to ratepayers who are not net-metering participants."[35] Additionally, a 2014 Nevada study found that installed solar systems provide an estimated benefit of $166 million over their lifetime.[36] Mississippi and Minnesota PUCs also conducted studies in 2014, both of which found that the benefits of NEM generally outweighed the costs.[37] More recently, the Maine PUC determined that the value of distributed solar is more than twice the average retail price at which distributed solar is compensated in the state, and noted that solar "provides a substantial public benefit because it reduces electricity prices due to the displacement of more expensive power sources, reduces air and climate pollution, reduces costs for the electric grid system, reduces the need to build more power plants to meet peak demand,

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[33] M. Muro and D. Saha, Brookings Institution, *Rooftop solar: Net metering is a net benefit* (May 23, 2016), *available at* https://www.brookings.edu/research/rooftop-solar-net-metering-is-a-net-benefit/.
[34] *Id.*
[35] *Id.* (quoting Vermont Public Service Department, Evaluation of Net Metering in Vermont Conducted Pursuant to Act 12*5 of 2012* (Jan. 15, 2013), at p. 31, *available at* http://www.leg.state.vt.us/reports/2013ExternalReports/285580.pdf).
[36] *Id.* (citing E3, Nevada Net Metering Impacts Evaluation (July 2014), at p. 15, *available at* http://puc.nv.gov/uploadedFiles/pucnvgov/Content/About/Media_Outreach/Announcements/Announcements/E3%20PUCN%20NEM%20Report%202014.pdf?pdf=Net-Metering-Study).
[37] *Id.* (citing Synapse, Net Metering in Mississippi (Sep. 19, 2014), at p. 1, *available at* http://www.synapse-energy.com/sites/default/files/Net%20Metering%20in%20Mississippi.pdf; Institute for Local Self-Reliance, Minnesota's Value of Solar (Apr. 2014), at p. 3, *available at* http://ilsr.org/wp-content/uploads/2014/04/MN-Value-of-Solar-from-ILSR.pdf).

stabilizes prices, and promotes energy security."[38] A growing number of studies from labs, think tanks and academic institutions parallel the state PUCs' studies, finding that solar is being consistently undervalued.[39]

Failure to accurately account of the myriad benefits of NEM can have disastrous impacts. For instance, in December 2015, the Public Utilities Commission of Nevada (PUCN) set out to assess the net benefit of NEM by measuring "the positive and negative effects of: (1) avoided energy; (2) energy losses/line losses; (3) avoided capacity; (4) ancillary services; (5) transmission and distribution capacity; (6) avoided criteria pollutants; (7) avoided CO2 emission cost; (8) fuel hedging; (9) utility integration and interconnection costs; (10) utility administration costs; (11) environmental costs."[40] Unfortunately, the PUCN determined they had insufficient time or data to account for all but two of these variables.[41] As a result, the PUCN drastically changed rate design for NEM customers, effectively ending NEM and forcing SolarCity and other solar providers to cease sales and installations in the state.

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[38] *Id.* (citing Maine Public Utilities Commission, Maine Distributed Solar Valuation Study (Mar. 1, 2015), *available at* http://www.nrcm.org/wp-content/uploads/2015/03/MPUCValueofSolarReport.pdf).

[39] *See, e.g.*, Lawrence Berkeley National Laboratory, Financial Impacts of Net-Metered PV on Utilities and Ratepayers (Sep. 2014), *available at* https://emp.lbl.gov/sites/all/files/LBNL%20PV%20Business%20Models%20Report_no%20report%20number_0.pdf; Environment America, Shining Rewards: The Value of Rooftop Solar Power for Consumers and Society (2015), *available at* http://www.environmentamerica.org/sites/environment/files/reports/EA_shiningrewards_print.pdf; Missouri Energy Initiative, Net Metering in Missouri: The Benefits and The Costs (2015), *available at* http://www.oregonrenewables.com/Publications/Reports/Missouri_Net_MeteringEval_2015.pdf; Acadia Center, Value of Distributed Generation Solar PV in MA (Apr. 14, 2015), *available at* http://acadiacenter.org/document/value-of-solar-massachusetts/; R. Perez, K. Zweibel, T. Hoff, Solar Power Generation in the US: Too expensive, or a bargain? (2011), *available at* http://www.asrc.cestm.albany.edu/perez/2011/solval.pdf.

[40] Nevada PUC, Docket Nos. 15-07041 and 15-07042 at p. 66.

[41] *Id.* at p. 67.

However, as Figure 1 below demonstrates, had the PUCN taken the time to gather the necessary data, an accurate assessment of the eleven above-mentioned factors shows that NEM resulted in a net benefit for Nevada.

Figure 1[42]

Annual Net Benefits of 2017-2019 NEM Rooftop Solar Deployments

Type	Benefit and Cost Category	Net Benefits (Excl. Environmental)	Net Benefits + Environmental
		2015 Levelized cents/kWh	
Benefits	Energy	3.7	Same
	Line Losses	0.4	Same
	Generation Capacity	2.6	Same
	Ancillary Services	0.1	Same
	Transmission & Distribution Capacity	2.8	Same
	CO_2 Regulatory Price	0.9	Same
	Voltage Support	0.9	Same
	Criteria Pollutants	Not included	0.1*
	Environmental Externalities	Not included	1.7*
	Total Benefits	**11.4**	**13.2**
Costs	Program Costs	0.1	Same
	Integration Costs	0.2	Same
	Participant Bill Savings	9.5	Same
	Total Costs	**9.8**	**9.8**
	Total Net Benefits	**1.6 cents/kWh**	**3.4 cents/kWh**

*More recent academic studies estimate the criteria pollutants cost to be up to 5 cents/kWh[22] and the social cost of carbon to be as high as 12 cents/kWh in Nevada.[23]

The above chart shows that, when all eleven factors are accurately accounted for, NEM solar provides a net benefit of between 1.6 and 3.4 cents per kWh in Nevada. The PUCN's decision to effectively terminate NEM therefore represents a significant missed opportunity for the state. The economic impact of Nevada's failure to accurately assess the benefits of customer-sited solar illustrates the importance of accurately assessing the costs and benefits of solar and other distributed resources before making determinations on the continuation of NEM.

[42] SolarCity and Natural Resources Defense Council, Distributed Energy Resources in Nevada: Quantifying the net benefits of distributed energy resources (2016), at p. 11, *available at* http://www.solarcity.com/sites/default/files/SolarCity-Distributed_Energy_Resources_in_Nevada.pdf.

VI. The Report's proposed "Solar Metering Program" risks violating Oregon and federal law.

The Report proposes to address the perceived but unsubstantiated cost shift in NEM by replacing NEM with a metering program where customers would be charged the volumetric retail rate for all energy delivered to them and compensated based on the "location and utility specific RVOS" rather than the retail rate.[43] Replacing NEM with this "buy-all/sell-all" approach is problematic as it likely violates Oregon law regarding limiting NEM and federal law protecting customers' rights to serve onsite load with their own generation.

ORS Section 757.300 states that, "[w]hen limiting net metering obligations . . . the commission . . . shall consider the environmental and other public policy benefits of net metering systems."[44] As a result, the Commission may only limit net metering following consideration of environmental and other public policy benefits, which the Staff Report does not appear to have done. An investigation into the resource value of solar is currently underway in Commission proceeding UM 1716. However, that evaluation has not been completed and, as a result, any efforts to curtail NEM in this docket without consideration of the environmental and other benefits of NEM are premature and risk violating Oregon law.

It is not clear that the RVOS evaluation in UM 1716 will assess "environmental and other public policy benefits" sufficiently to justify limiting NEM. As has been noted in UM 1716, it appears the Commission only plans to assess direct impacts on utility costs, which would necessitate modifying the methodology at a later date if it is to be used to assess the "environmental and other public policy benefits" referenced in Section 757.300.[45] As a result, it

[43] Staff Report at p. 11.
[44] ORS § 757.300(6).
[45] *See, e.g.*, UM 1716, TASC/100 at pp. 4-5.

does not appear that the RVOS evaluation being developed in UM 1716 will be usable for limiting utilities' NEM obligations.

SolarCity believes the buy-all/sell-all arrangement Staff proposes potentially violates federal regulations under the Public Utility Regulatory Policies Act of 1978 (PURPA) because PURPA grants customers the right to serve onsite load. Under these regulations, a qualifying facility (QF) has the option either "(1) to provide energy as the *QF determines such energy to be available for such purchases* . . . or (2) to provide energy or capacity pursuant to a legally enforceable obligation for the delivery of energy or capacity over a specified term."[46] QFs also have the right to operate in parallel with the utility's system.[47] Thus, QFs, which include behind the meter solar energy systems, have a right to interconnect to the utility distribution system, serve their onsite energy needs first and make available only energy in excess of their needs.[48] Staff's proposal would deny customer-generators the right to serve on-site load prior to making any energy available to their interconnected utility and, therefore, runs afoul of PURPA.

VII. Conclusion

SolarCity appreciates the opportunity to comment on the Staff Report. We believe Staff's concerns regarding NEM causing a potential cost shift are unsubstantiated and that Staff's proposed "Solar Metering Program" would fail to adequately encourage distributed solar and

[46] 18 CFR § 292.304(d) (emphasis added).
[47] *See* 18 C.F.R. § 292.303(e) (all utilities must offer parallel operation); FERC Staff Memorandum on Order 69, 44 F.R. 38863, at 38869 (July 3, 1979) (explaining that § 292.303(e) provides QFs an "entitlement" to operate in parallel with utilities "so that the same customer circuits can be served simultaneously by both customer- and utility-generated electricity").
[48] *See* Jon Wellinghoff and Steven Weissman, *The Right to Self-Generate as a Grid-Connected Customer*, 36 Energy L. J. 305, 317 (2015), *available at* http://felj.org/sites/default/files/docs/elj362/23-305-326-Wellinghoff_FINAL%20%5B11.10%5D.pdf ("While a QF's right to use its generated power is not expressly stated in PURPA, this right is apparent . . . indeed, the authors have found no challenge to the existence of a usage right in the statute's legislative history or in legal scholarship.").

likely runs afoul of state and federal law. We are confident that an assessment of NEM that refocuses on the requirements of HB 2941 will lead the Commission to conclude that NEM adheres to HB 2941 and continues to be Oregon's most important program for encouraging the development of distributed solar. We look forward to continuing to contribute to this and other proceedings impacting Oregon's progress in encouraging the growth of clean energy in the state.

Respectfully submitted,

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APPENDIX A

Appendix A

#	Should these elements be included for exploration for a methodology to lead to a resource value of solar?	Agreement %
	Utility Cost or Benefit Inputs	
1	**Avoided energy impacts**	100
2	**Avoided capacity additions**	100
3	**Line losses**	100
4	**Avoided transmission and distribution maintenance and capital additions**	100
5	**Avoided compliance expenditures (operating or capital) associated with a Renewable Portfolio Standard**	100
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7	**Benefits, costs, and revenues associated with integrating distribution-side solar resources into the utility system**	100
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