

**IN THE SUPREME COURT OF THE STATE OF NEVADA**

NO SOLAR TAX PAC, a Nevada  
political action committee,

Appellant,

vs.

CITIZENS FOR SOLAR AND  
ENERGY FAIRNESS, a Nevada  
political action committee; and,  
THE HONORABLE BARBARA K.  
CEGAVSKE, in her official capacity as  
Secretary of State of the State of Nevada,

Respondents.

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Electronically Filed  
May 26 2016 09:23 a.m.  
Tracie K. Lindeman  
Clerk of Supreme Court

Case No. 70146

1<sup>st</sup> Judicial District Court  
Case No. 16 OC 00030 1B

**RESPONDENT CITIZENS FOR SOLAR AND ENERGY  
FAIRNESS' SUPPLEMENT TO JOINT APPENDIX**

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**CHRONOLOGICAL & ALPHABETICAL INDEX  
SUPPLEMENT TO JOINT APPENDIX**

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Excerpts from December 23, 2015 Order of the Public Utilities Commission of Nevada, which was attached as Exhibit A to Plaintiff's Memorandum of Points and Authorities in Support of its Complaint for Declaratory and Injunctive Relief	02/16/2016	1	1 - 26

**CERTIFICATE OF APPENDIX (NRAP 30(g)(1))**

In compliance with NRAP 30(g)(1), I hereby certify that this Supplement to Appendix consists of true and correct copies of the papers in the District Court file.

DATED this 25<sup>th</sup> day of May, 2016.

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# EXHIBIT

## A

**BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA**

Application of Nevada Power Company d/b/a NV )  
Energy for approval of a cost-of-service study and net ) Docket No. 15-07041.  
metering tariffs. )  
\_\_\_\_\_ )

Application of Sierra Pacific Power Company d/b/a NV )  
Energy for approval of a cost-of-service study and net ) Docket No. 15-07042  
metering tariffs. )  
\_\_\_\_\_ )

At a general session of the Public Utilities  
Commission of Nevada, held at its offices  
on December 22, 2015.

PRESENT: Chairman Paul A. Thomsen  
Commissioner Alaina Burtenshaw  
Commissioner David Noble  
Assistant Commission Secretary Trisha Osborne

**ORDER**

The Public Utilities Commission of Nevada ("Commission") makes the following findings of fact and conclusions of law:

**I. INTRODUCTION**

Nevada Power Company d/b/a NV Energy ("NPC") filed an Application for approval of a cost-of-service study and net energy metering ("NEM") tariffs. Sierra Pacific Power Company d/b/a NV Energy ("SPPC," and together with NPC, "NV Energy") filed an Application for approval of a cost-of-service study and NEM tariffs.

**II. SUMMARY**

The Applications are granted as modified in the discussion and findings below. The Commission revises tariffs and rates for NPC and SPPC.

**III. PROCEDURAL HISTORY**

- On July 31, 2015, NPC filed an Application for approval of a cost-of-service study and NEM tariffs.
- On July 31, 2015, SPPC filed an Application for approval of a cost-of-service study and NEM tariffs.

The obvious solution is to redesign the pricing structure for ratepayers who choose to become partial-requirements NEM ratepayers so that fixed and demand costs are removed from volumetric charges. Instead, these costs should be reflected in fixed and demand prices, just as NV Energy has proposed. (Ex. 101A at 18-25.)

## **Commission Discussion and Findings**

### **Statutory Authority**

180. Pursuant to SB 374, the Commission has very broad authority to establish new rate classes, terms and conditions, and rates and charges for NEM ratepayers. (See Sections 2.3, 2.95(1)(b), and 4.5 of SB 374.) The Nevada Legislature directed the Commission to establish just and reasonable rates and charges to avoid, reduce, or eliminate any unreasonable shifting of costs from NEM ratepayers to non-NEM ratepayers.

### **Overview**

181. To the extent it is reasonably possible, rates charged to a class of ratepayers should recover the costs to serve that class of ratepayers. Current rates for NEM ratepayers are not properly aligned with the costs to serve NEM ratepayers. The misalignment can be attributed in part to the NEM policies enacted by the Nevada Legislature prior to the passage of SB 374. As NEM system penetration increases the cost-shift will grow. Consequently, it is in the public interest to take steps to transition to accurate, cost-based, non-discriminatory rates.

182. While rates charged to a class of ratepayers should reasonably recover the costs to serve that class of ratepayers, the design of cost-based rates is not a simple, mechanical process. Rate design encompasses many factors, not all of which can be quantified. The general principles of rate design are (1) economic efficiency, (2) equity, (3) bill stability, (4) revenue stability, and (5) customer satisfaction. It is generally understood that these principles are

sometimes in tension with each other and that regulators must strike the appropriate balance between these principles. For example, rate stability is not an end in itself and has to be weighed along with the other criteria. Striking the appropriate balance requires consideration of many factors.

183. The simplest way to develop an equitable pricing structure is to adopt prices that mirror the cost structure. Specifically, the fixed costs should be collected through fixed charges and costs which vary with consumption should be collected through volumetric charges. In this proceeding, NV Energy proposes a three-part tariff that includes (1) a basic service charge, (2) a demand charge, and (3) a volumetric charge. This proposal most closely mirrors the nature of costs incurred by NV Energy to serve NEM ratepayers. However, the Commission rejects this proposal.

#### **Demand Charge**

184. Residential and small commercial ratepayers in Nevada have not had a demand charge (demand cost recovery component) in the past.<sup>22</sup> A certain level of ratepayer education would be necessary to implement a demand charge for the NEM ratepayer classes. NEM ratepayers are sophisticated enough to understand demand charges and can reduce their demand impacts in many ways, including how they configure their installations<sup>23</sup> and whether they elect to modify their ongoing usage patterns. However, ratepayer acceptance of this potential rate change is unknown. As a result, now is not the time to adopt a demand charge for residential and small commercial NEM ratepayers, given the other changes taking place in this proceeding.

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<sup>22</sup> A demand charge is one option designed to recover costs that are based on a ratepayer's unique maximum load. The maximum load is what the utility must be prepared to serve, and the maximum load also triggers a sudden and intense need for electricity. This sudden and intense need for energy is filled by the utility's ability to ramp up and ramp down generating units. For decades, demand charges have been used for large industrial or commercial ratepayers due to the costs and strains put on the utility's systems due to their particular demand characteristics.

<sup>23</sup> Orientation of solar panels can increase generation at different times of the day to suit the load needs of the individual ratepayer. (Ex. 99A at 72.)

185. Instead, the Commission approves a two-part tariff consisting of a modified basic service charge and a volumetric commodity charge.

### **Basic Service Charge**

186. The basic service charge shall be calculated by NV Energy to recover the full amount of customer, facilities, and primary and high voltage distribution costs. These costs do not change for a ratepayer after the installation of a NEM system; however, because installation of a NEM system results in less energy delivered by the utility to the NEM ratepayer, a NEM ratepayer will avoid paying for these fixed costs if rates remain designed to collect them through a volumetric charge. A basic service charge is the simplest and most easily understood method to ensure recovery of such fixed costs from a ratepayer regardless of the volume of sales to the ratepayer.

187. Primary and high voltage distribution costs, while fixed in nature, are allocable to each ratepayer class based upon that class's contribution to demand, which may change over time. Assigning a demand charge reflects both the fixed nature of the costs and usage of the allocated primary distribution costs to the ratepayers within the class. Including primary and high voltage distribution in the basic service charge is in lieu of instituting a facilities charge based on demand. As the Commission has forestalled instituting demand charges at this time, including these costs in the basic service charge reflects the nature of these costs better than including them in the variable commodity rate. Another benefit for including the costs in the basic service charge is a reduction in volatility for NEM ratepayers, providing more predictable and stable electric bills because the increase in the basic service charge yields a corresponding reduction in the variable commodity rate.<sup>24</sup>

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<sup>24</sup> The primary drawback to including the costs in the basic service charge is the creation of some level of intra-class inequity and some price signal distortion—NEM ratepayers are unable to potentially avoid some of the costs by



188. The Commission does not have enough information to make an informed decision regarding NV Energy's proposal to include 100 percent of transmission and 62 percent of generation demand costs in the basic service charge. Therefore, in the next general rate cases for SPPC (2016) and NPC (2017), NV Energy shall recommend (with additional support) what portion of transmission and generation demand costs should be shifted (tilted) between the basic service charge and volumetric commodity rate. A future determination on rate tilt is particularly important in the case of NEM ratepayers because they are partial-requirements ratepayers who, in many cases, can avoid all or nearly all volumetric commodity rates for some months of the year. Until the Commission makes the necessary adjustment to the volumetric rates in the next general rate cases, the volumetric commodity rates will continue to be used to recover 100 percent of the transmission and generation demand costs. Nothing in this discussion precludes a party from requesting the implementation of demand charges for NEM ratepayers in the future.

#### TOU

189. The NEM TOU rate schedules proposed by NV Energy are approved as modified by the other rate design decisions in this Order. TOU rates are an improvement over the flat rates in providing price signals that better reflect the variations in costs across the year. TOU rates represent a far more accurate, targeted, and cost-based means to charge NEM ratepayers. NEM ratepayers can understand more complex cost structures, such as TOU, and change their behavior to produce savings based on a price signal. TOU periods can also be adjusted as peak demand changes in the future.<sup>25</sup>

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controlling demand. Conversely, the primary drawback to including the costs in the variable commodity rate is the creation of a relatively higher level of intra-class inequity—higher-usage NEM ratepayers will pay a portion of the costs associated with serving lower-usage NEM ratepayers.

<sup>25</sup> For example, NPC is forecasting the peak demand to shift to later in the day to the early evening hours by 2017 as more solar generation impacts the utility's system. (Ex. 83A at 2.)

190. Pursuant to NRS 704.085, as modified by SB 374, there are no restrictions on the implementation of TOU rates for NEM ratepayer classes. The changing technology landscape makes time-variant pricing a viable and important element of future NEM rate design. Therefore, in the next general rate cases (SPPC in 2016 and NPC in 2017), NV Energy shall recommend whether TOU rates for NEM ratepayers should continue to be opt-in, opt-out, or mandatory in the future.<sup>26</sup>

### **Net Excess Energy**

191. Banking the net excess energy at the retail rate as some parties propose is not just and reasonable because the energy delivered by the NEM ratepayers is not the same as the energy delivered by NV Energy. Pursuant to NRS 704.001(4), NV Energy is required to provide reasonably reliable service at just and reasonable rates. NV Energy is required to provide this service at the times and place and in the volumes required by any ratepayer, including a NEM ratepayer. This requires that the utility adhere to industry standards for the design and operation of its electric system including system reserves and redundancies. Failure to provide this service can result in fines and the revocation of NV Energy's operating certificate. In contrast, NEM ratepayers have no legal requirement to provide any volumes to the grid at any time. NEM ratepayers provide these volumes solely at the discretion of each individual NEM ratepayer and are not scheduled in advance and can be withdrawn at any time by the NEM ratepayer. Further, the volumes flow to the grid without consideration for overall grid demand or system reliability which remains the legal responsibility of NV Energy.

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<sup>26</sup> The Commission notes that the investor owned utilities in California have been ordered to file applications no later than January 1, 2018 that propose default TOU rate structures to begin in 2019. (See Decision on Residential Rate Reform for Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company and Transition to Time-Of-Use Rates, Rulemaking 12-06-013, issued 7/13/2015).

192. NRS 704.769 requires measuring the difference between the electricity supplied by a NV Energy and the electricity generated by a NEM ratepayer which is fed back to NV Energy over the applicable billing period. This measuring can be accomplished in various increments over the applicable billing period (ie. 15-minute, hourly, multiple periods of hours in a day, daily, monthly).

193. Staff's proposed buy/sell arrangement with NEM ratepayers for energy is just and reasonable and in the public interest. NV Energy shall use the average annual long-term avoided energy cost that is forecasted by PROMOD<sup>27</sup> from NV Energy's last approved integrated resource plan filings with an adder for avoided distribution line losses. NV Energy shall account for this monthly credit on NEM ratepayers' bills as a fuel and purchased power expense which would go into the BTER and DEAA accounts accordingly. Staff's proposal allows NEM ratepayers to avoid energy costs and gives appropriate credit for the net excess energy from the NEM systems. The arrangement avoids conflating two separate and distinct transactions: (1) the sale of energy services by NV Energy to a NEM ratepayer and (2) the sale of energy and other attributes by the NEM ratepayer to NV Energy. Through hourly settlement, the arrangement has the potential to nearly eliminate the very type of cost shifting that SB 374 was designed to address, including revenue under-recovery associated with retaining transmission and generation demand costs in the commodity rate, even when a less-efficient, two-part pricing structure is used. Also, the arrangement has the benefit of efficiently and transparently valuing the net excess energy and any other attributes produced by the NEM systems in advance.

194. The NEM ratepayers' net excess energy is set at a value that captures the majority of the variables that make up the possible value/detriment of NEM during each general rate case.

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<sup>27</sup> PROMOD forecasts the value that the utility thinks it will have to pay for energy in the future. (Tr. at 540-541.)

The Commission will set a value during each future general rate case by using a methodology that considers both 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 pollutant costs; (7) avoided carbon dioxide emission cost; (8) fuel hedging; (9) utility integration and interconnection costs; (10) utility administration costs; and (11) environmental costs. These variables must be known and measurable positive and negative effects internal to the utility; these variables cannot be speculative or unquantified. For other than the avoided energy and energy losses/line losses, there is insufficient time or data in this proceeding to assign a value to the other nine variables, but other information can be vetted in future general rate cases.

195. Using an optional alternative to the annual price for net excess energy would enhance the price signal sent to NEM ratepayers by informing the NEM ratepayer or potential NEM ratepayer as to the value of net excess energy. Some price diversity could be achieved by establishing "time-of-production" ("TOP") pricing with the time periods mirroring the TOU periods used by NPC and SPPC in their respective TOU rate designs. Therefore, NV Energy shall establish TOP rates for NEM ratepayers. The rates shall be based on the long-term avoided costs for each hour, grouped into the same seasonal time periods used for the TOU rates. The tariffs shall require NEM ratepayers who select service under the TOP rates to also take service under the TOU rates.

### **Gradualism**

196. Consistent with the principle of bill stability described above, the Commission finds that it is in the public interest to establish a time frame in which to gradually move to the revised rate structure in order to prevent rate shock and allow current and future NEM ratepayers

ample time and opportunity to adjust their current usage patterns.<sup>28</sup>

197. The transition will be similar to the process of climbing a ladder to the ceiling. The ceiling reflects the revised rates for NEM ratepayers as provided in the discussion above and the floor reflects existing rates for NEM ratepayers. The first rung of the ladder will be implemented on January 1, 2016, and continue through December 31, 2016. Beginning on January 1, 2017,<sup>29</sup> the second rung will be implemented and continue through December 31, 2017. Beginning on January 1, 2018,<sup>30</sup> the third rung will be implemented and continue through December 31, 2018. Beginning on January 1, 2019, the fourth rung will be implemented and continue through December 31, 2019. The fifth and final rung will be implemented on January 1, 2020,<sup>31</sup> when the transition to cost-based rates will have been completed. As a result, incremental changes from the current rates will be made consistent with the general rate case cycles of both utilities. Gradualism will mitigate rate shock by providing a glide path to cost-based rates that are not subsidized by non-NEM ratepayers.

198. The transition will result in bills that are higher than bills currently experienced by NPC and SPPC NEM ratepayers. The improved price signals coupled with the length of transition period will allow NEM ratepayers adequate opportunity to modify their energy use patterns and become accustomed to the new rates. It should be noted that NEM ratepayers will

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<sup>28</sup> The rooftop solar PV industry has benefited from and now thrives under two major subsidy programs fostered by the Nevada Legislature. The first subsidy comes in the form of a full requirements rate structure that results in cost shifts away from NEM ratepayers to non-NEM ratepayers. This subsidy has been in place in Nevada since 1997, when the Nevada Legislature passed SB 255 creating the retail credit NEM mechanism. The second subsidy comes in the form of the rebate through the RenewableGenerations program. This subsidy has been in place for over a decade (established by the Nevada Legislature in 2003), and the amounts paid (which will total \$255 million upon exhaustion) have steadily decreased over time. This program has created a glide path. The migration (through gradualism) to cost-based rates instituted in this proceeding continues that glide path to take the rooftop solar industry towards self-sustainability in Nevada.

<sup>29</sup> The "ceiling" for SPPC's NEM ratepayers will now be based on the outcome of SPPC's 2016 general rate case.

<sup>30</sup> The "ceiling" for NPC's NEM ratepayers will now be based on the outcome of NPC's 2017 general rate case.

<sup>31</sup> The "ceiling" for SPPC's NEM ratepayers will now be based on the outcome of SPPC's 2019 general rate case.

benefit significantly from continued subsidies during the transition period.<sup>32</sup>

199. The costs related to facilitating the transition, while significant, will ensure an orderly transition to cost-based rates while providing substantial benefits through this subsidy to NEM ratepayers. While subsidies are not optimal, the orderly transition provided in this Order will protect the significant investments made by the State of Nevada in NEM systems over the years. The costs associated with the transition will be shared by NEM ratepayers, NV Energy shareholders, and non-NEM ratepayers of both utilities. The industry will have adequate time to adjust and modify their business models to respond to these changes and still enjoy the benefits of the subsidization of their products and services provided by non-NEM ratepayers and the utility.

#### **Section 2.8 of SB 374**

200. Arguments stating that any rate design that increases costs for NEM ratepayers does not meet the purpose and policy of SB 374 are not compelling. Several parties reference NRS 704.766 as revised by Section 2.8 of SB 374, as proof that the Nevada Legislature in 2015 reiterated its prior purpose and policy of implementing NEM. In reality, Section 2.8 was only included to capture the reference to Section 2.3 of SB 374 which will be codified as a new statute. Pursuant to SB 374, the Legislature directed the Commission to ensure that there was no unreasonable cost shift from NEM ratepayers to non-NEM ratepayers. To the extent that the Commission found a subsidy to exist, it has established a rate design to begin addressing the matter through cost-based rates. Reducing subsidies benefits all ratepayers—those on fixed incomes, those operating businesses that fuel the local economy, and those institutions (such as schools and hospitals) that provide other basic governmental services. Notwithstanding, cost-

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<sup>32</sup> See discussion of current subsidy at paragraph 88.

based rates that increase costs for rooftop solar relative to other renewable technologies will encourage private investment in other renewable technologies such as utility-scale solar PV and storage technologies. This will stimulate the economic growth of Nevada and enhance the continued diversification of the energy resources used in Nevada.

## **VII. MISCELLANEOUS ISSUES**

### **A. New-Build Solar**

#### **SNHBA Position**

201. SNHBA recommends a separate tariff for NEM systems on new-build homes. SNHBA states that distinct treatment of new-build solar is necessary to accurately reflect the unique value of new-build solar and the benefits for NV Energy's general body of ratepayers. It is unreasonable to assume that the costs and load characteristics for existing residential ratepayers who retrofit their homes using solar are the same as residential ratepayers occupying new homes that have solar included as a package design for compliance with modern building codes. It is self-evident that the demand on a utility's electric system from a new, modern home built in the last 15 years will differ substantially from that of a home built in the nineteen-sixties, seventies, eighties and even the nineties. However, SNHBA could provide no information demonstrating that any of its developers have asked NV Energy to modify the distribution facilities used to provide service to new-build solar homes. (Ex. 41A at 2-3; Tr. at 196-205.)

202. SNHBA states that NV Energy, through its filings, discovery responses, and witness testimony, is on record numerous times admitting that it lacks data to substantiate application of the proposed NEM2 rate to new-build solar. There is also no research or previous study to support the application of cost assumptions based on retrofit to new construction. NV Energy's estimates of increased service costs for NEM ratepayers are entirely based on existing

customers. These retrofit-based cost assumptions are unreasonable if applied to new construction due to the inherent economies of scale and significant differences in opportunities for design optimization and quality control in new construction compared to existing homes. (Ex. 41A at 4.)

203. SNHBA states that it is reasonable to assume that new-build solar has much less demand on a utility's system especially during peak hours in sunny, desert states like Nevada because new homes are subject to stringent building codes and benefit from the availability of more energy efficient building materials and appliances compared to homes built 40-50 years ago or even 10-20 years ago. New-build solar is a more holistic approach to solar deployment whereby a home is designed from the start to optimize solar generation and energy efficiency. Having data on this point would be immensely helpful, but NV Energy admits that it does not gather such granular information, even though NV Energy states on numerous occasions in the Applications that the best and most accurate way to develop rates is by gathering and analyzing actual production and usage data over multiple years. (Ex. 41A at 10-12.)

204. SNHBA states that Nevada has a unique opportunity in this proceeding to officially recognize that not all rooftop solar is the same and to develop separate rates accordingly. Doing so would position Nevada as among the most forward-looking and thoughtful states when it comes to understanding the many nuances of solar power. (Ex. 41A at 15-16.)

205. SNHBA states that a separate rate for new-build solar would also lead to a number of economic benefits for Nevada. A uniform rate for rooftop solar would invariably drive up the cost of new-build homes that include rooftop solar by limiting the financial benefit of these homes for consumers. Driving up the cost of new-build homes, in turn, would price



many consumers out of the housing market, especially those in the market for greener homes.

(Ex. 41A at 19.)

### **BCP Position**

206. BCP states that the Commission should consider a lower Rule 9 allowance for new home construction where rooftop solar is installed at the time a dwelling is built, reflecting lower usage and less revenue to justify the allowances. This issue could be dealt with in a general rate case. (Ex. 41A at 14.)

### **Staff Position**

207. Staff states that it is unreasonable for NV Energy to downsize the design for its distribution facilities that serve new residential housing communities who offer rooftop solar systems. NV Energy's distribution facilities need to be sized to reliably serve the entire load of a NEM ratepayer in the event that the NEM ratepayer's on-site generation fails; otherwise, there could be reliability impacts and/or service disruptions to the NEM ratepayer and potentially all other ratepayers on the distribution path. Further, in response to a Staff data request, the builders represented by SNHBA indicated that they do not downsize the electrical service ratings for new homes to reflect installation of a rooftop solar system. (Ex. 83A at 5-6.)

### **NV Energy Rebuttal Position**

208. NV Energy states there is no need to create a separate rate class for new-build solar homes. The Commission has never considered differentiating electric service and charges based on vintage (i.e., when they become a ratepayer). A ratepayer who buys a new home with modern energy efficiency built in pays the same rates as ratepayers in older, less efficient homes. If a ratepayer retrofits his older home to have the same efficiency standards as a new home, the ratepayer still pays the same energy rates as before the retrofit and the same rates as the ratepayer

who bought the more efficient home. Absent some marked change in the distribution service provided, retrofitted rooftop solar homes should not be treated differently than new-build rooftop solar homes. (Ex. 99A at 36-38.)

209. NV Energy states that developers have not asked NV Energy to design and install distribution facilities smaller than otherwise are required pursuant to NV Energy's distribution design guidelines/standards. The absence of any significant difference in the type of service provided to new-build NEM ratepayers, compared to other NEM ratepayers, suggests that it is inappropriate to create a separate class for NEM ratepayers with new-build solar. (Ex. 84A at 15-16; Tr. at 773-777, 1054-1055.)

#### **Commission Discussion and Findings**

210. It is not just and reasonable to establish a separate tariff for new-build solar. There is insufficient data upon which to establish a separate rate class at this time. NV Energy's distribution facilities need to be sized to reliably serve the entire load of a NEM ratepayer in the event that the NEM ratepayer's on-site generation fails; otherwise, there could be reliability impacts and/or service disruptions to the NEM ratepayer and potentially all other ratepayers on the distribution path. The absence of any significant difference in the type of service provided to new-build NEM ratepayers is supported by the fact that developers do not downsize the electrical service ratings for new residential homes to reflect installation of solar PV systems. Absent some marked change in the distribution service provided by NV Energy, there should be no separate ratepayer class for new-build solar.

#### **B. Generation Meter**

#### **NV Energy Position**

211. NV Energy recommends a monthly charge applied only to non-incentivized

NEM2 ratepayers for the cost of generation meters. NV Energy states that generation meters will facilitate compliance with SB 374's requirement that NV Energy assess the effect of distributed generation on its NEM systems, accurately measure the cost of service, and potentially aid in demonstrating compliance with the Clean Power Plan. (Ex. 2A at 21; Ex. 5a at 21.)

#### **BCP Position**

212. BCP states that unless something like a value-of-solar approach (or NV Energy's proposal to charge for total energy including solar) is adopted, the extra generation meter proposed by NV Energy and included in costs is unnecessary. All that is necessary is to use the AMI data so that energy delivered by the utility to the customer and excess energy sent to the utility are paid different amounts. Some generation meters may be required for load research, but it is not clear that all NEM ratepayers need them. If an extra meter is required, it should be paid for up front by the NEM ratepayer, not financed by the utility. (Ex. 62A at 6.)

#### **TASC Position**

213. TASC states that there is no need to require all NEM2 ratepayers to install a generation meter. Historically, the rationale for generation meters has been to allow NV Energy to claim the PECs from NEM ratepayers who receive an incentive under the RenewableGenerations program. (See NRS 704.775(3)(a)). However, this program will be ending in the near future. Presumably, NV Energy's primary rationale for requiring these meters in the future is to perform load research, which only requires metering a small, statistically valid sample of a ratepayer class—perhaps one percent. Given that a significant number of NEM1 ratepayers already have generation meters, it is questionable whether NV Energy would need additional generation meters for NEM2 ratepayers in order to obtain a statistically valid sample.

If NV Energy needs the metering data for any future Critical Peak Production credits from NEM, all ratepayers would benefit by reducing NV Energy's Clean Power Plan compliance costs. As a result, the costs of the metering needed to secure such credits should be borne by NV Energy because all ratepayers will benefit. If NEM2 ratepayers want a generation meter in order to account for the PECs that they own, or simply to collect the output data from their generator, NV Energy should offer to split the cost of the generation meter 50/50. No other utility requires ratepayers to pay for a generation meter without a clear program purpose for that meter. (Ex. 62A at 26-29; Ex. 68A at 35-38.)

#### **Vote Solar Position**

214. Vote Solar recommends eliminating the generation meter requirement and associated cost and rate. Vote Solar states that it does not find NV Energy's explanations compelling. Generation meters are not needed. To develop load shapes, NV Energy needs to know how much energy it is supplying to the NEM ratepayer and at what time. The total hourly profile is not needed. A dual register meter or a second meter to measure exports on a temporal basis will provide the additional information NV Energy needs to net exports against future consumption. A single bi-direction meter would be sufficient. To the extent that the generation meters are desirable to measure total on-site generation for the purposes of Clean Power Plan compliance, such use benefits all ratepayers, so the costs should be spread to all ratepayers. (Ex. 44A at 59-61.)

#### **NV Energy Rebuttal Position**

215. NV Energy continues to support the incremental monthly charge as proposed in the direct filing. NV Energy needs to continually monitor and review the sample data that is provided by all meters, in particular as a certain population, or segment of a population, is

growing. That is certainly the case with the NEM ratepayer class. By simply using the generation meters that are already installed as the sample, the growth and potential diversification of the loads is ignored. For this reason alone, the monthly charge applied only to non-incentivized NEM2 ratepayers is justified and reasonable. The amount of energy that NEM ratepayers provide to serve their load is also an important piece of the total load equation and is a vital input to the load shapes that are used in developing the MCSS for NEM ratepayers. (Ex. 99A at 51-54.)

216. NV Energy states that ratepayers who choose to participate in the RenewableGenerations program are required to have a generation meter so that the PECs can be measured, verified, and reported. The PECs are retained by NV Energy on behalf of all ratepayers who fund the incentive payment to participants in the RenewableGenerations program. This requirement for participants in the RenewableGenerations program to have a generation meter will continue to remain the case for NEM2 systems because the RenewableGenerations program is still active and was not affected by SB 374. (Ex. 85A at 11.)

#### **Commission Discussion and Findings**

217. NV Energy's proposed generation meter installation requirement and cost allocation is denied at this time. The Commission is not convinced at this time that the installation of generation meters for all NEM ratepayers is necessary. This decision has no impact upon NV Energy's requirement to have generation meters installed for those ratepayers receiving incentives pursuant to the RenewableGenerations incentive program. To preserve the option for NV Energy to install generation meters in the future (should the need arise), NV Energy shall include in its NEM tariffs a provision requiring the NEM ratepayer to authorize NV Energy's ability to install and maintain a generation meter, if deemed necessary by the utility.

### C. Interconnection Charges

#### BCP Position

218. BCP states that the Commission should consider some type of reasonable one-time administrative fee to recover one-time accounting and service costs associated with hooking up a NEM ratepayer. This issue would be ripe for resolution in a general rate case. (Ex. 62A at 14.)

#### TASC Position

219. TASC recommends that the Commission authorize NV Energy to implement an upfront interconnection charge for new NEM ratepayers as follows:

Customer Class	Interconnection Charge
RS	\$80
RS-M	\$90
GS	\$130

Upfront processing charges for interconnection applications are not uncommon (Excel Energy in Colorado and Avista and Idaho Power in Idaho), with a typical fee of no more than \$100 for residential NEM ratepayers. While the meters used for NEM ratepayers are the same as those used for non-NEM ratepayers, additional programming and inspections are required at the time of installation of the NEM system. Such additional costs are logically associated with the initial interconnection process and are best collected through an upfront fee for interconnection. The Commission should revisit these costs in subsequent general rate case cycles to ensure that they remain cost-based. (Ex. 76A at 28-29; Ex. 68A 34-35.)

#### NV Energy Rebuttal Position

220. NV Energy states that the appropriate recovery of these costs would be the same as recovery of the meter installation costs for any non-NEM ratepayer, which is through a basic service charge and not a one-time interconnection fee as proposed by TASC. Meter costs are

ongoing and do not end once initial installation is complete. NV Energy is responsible for the ongoing maintenance of a NEM ratepayer's installed meter, including the cost of replacing the meter as necessary. (Ex. 99A at 84).

### **Commission Discussion and Findings**

221. It is not reasonable to establish an interconnection charge for NEM ratepayers at this time in lieu of collecting such meter costs in the basic service charge. Besides the additional costs associated with meter programming and testing, NV Energy is responsible for the ongoing maintenance of NEM ratepayers' installed meters, including the costs of replacing the meters as necessary. An ongoing charge in the basic service charge will adequately reflect such costs incurred by NV Energy. Parties can review these costs in subsequent general rate case cycles to ensure that they remain cost-based.

#### **D. Regulatory Liability**

##### **NV Energy Rebuttal Position**

222. NV Energy states that it will create a regulatory liability for each utility. This will be a reserve account to offset NV Energy's revenue requirement in future general rate cases. Periodically, each utility will calculate the difference between the revenue it would have collected under the NEM1 rates and rules and the revenue that it actually collects under the NEM2 rates and rules. The amounts will be recorded in a regulatory asset/liability (Account No. 186). NV Energy will track and account for incremental NEM2 revenue in this manner regardless of which NEM2 proposal the Commission adopts in this proceeding. NV Energy will not benefit from any changes to the NEM rate structure. Instead, non-NEM ratepayers will benefit by seeing even lower rates in the future. (Ex. 101A at 5-6.)

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### **Commission Discussion and Findings**

223. It is just and reasonable to establish regulatory liability accounts for each utility until NEM rates approved in the next general rate case (2016 for SPPC and 2017 for NPC) go into effect. The accounts will be used to collect the difference between the revenue NV Energy would have collected under the NEM1 rates and rules and the revenue that NV Energy actually collects under the new NEM rates and rules. Several parties complained that any shift in rate design for NEM ratepayers between general rate cases would lead to an increase in revenues to be retained by NV Energy and its shareholders. One of the purposes of these proceedings is to establish just and reasonable rates and charges “to avoid, reduce, or eliminate an unreasonable shifting of costs from customer-generators [NEM ratepayers] to other customers [ratepayers] of the utilities.” (See Section 2.3(2)(d) of SB 374). Though SB 374 does not mention ensuring that there are no unreasonable shifting of costs from NEM ratepayers to NV Energy between general rate cases, the Commission finds that it is in the public interest to approve NV Energy’s proposal to ensure that non-NEM ratepayers, and not NV Energy, receive the benefit of NEM ratepayers’ increased contributions to their share of costs until the next general rate cases. Parties may make recommendations on the proper allocation of the monies in the regulatory liability accounts in the next general rate cases.

#### **E. Load Data**

##### **WCSD Position**

224. WCSD recommends that the new NEM tariffs not be applied to any NEM ratepayers who have not been equipped with smart meters and have access to less than one year of load data. SPPC has yet to install smart meters at all WCSD schools with NEM systems, and the most recent estimate for installation is the first quarter of 2016. The lack of smart meters is



problematic for WCSD because with no access to real-time data, energy management, especially for rate schedules that include demand charges, is nearly impossible. (Ex. 40A at 2, 5.)

225. WCSD further recommends that the Commission direct SPPC to make real-time, fifteen-minute interval data available to all “summary billed” ratepayers. As a “summary billed” ratepayer, WCSD receives one summary bill for payment purposes for its 129 facilities with 395 SPPC meters. SPPC’s software does not allow “summary billed” customers to have access to the My Account program and thus does not have access to real-time data. Without access to real-time data, WCSD is unable to effectively manage its demand profile to ensure the most efficient use of energy. Access to such data will allow WCSD and other “summary billed” customers to explore options to control demand and associated charges. (Ex. 40A at 6.)

#### **NV Energy Rebuttal Position**

226. NV Energy disagrees with WCSD. Through the RenewableGenerations program, over 500 ratepayers billed under a current three-part rate structure made similar decisions to WCSD to install NEM systems, all without the data from AMI that WCSD insists must be available. SPPC’s records indicate that WCSD has 230 active metering points and that all but 74 have already been upgraded to a smart meter and presently record in fifteen-minute intervals. The upgrades on the remaining meters are ongoing, with a scheduled completion date of March 31, 2016. (Ex. 85A at 3-4; Tr. at 849-851.)

#### **Commission Discussion and Findings**

227. The Commission finds that this issue is moot because the new NEM rates do not include a demand charge component at this time.

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## VIII. ROOFTOP SOLAR INDUSTRY JOBS

### Staff Position

228. Staff states that caution should be employed when referencing employment figures for the solar industry in Nevada. The Solar Foundation (“TSF”) provides an oft cited employment figure of 5,900 persons at the end of 2014 for Nevada’s solar industry. The figures are based on an annual census conducted by The Solar Foundation. However, it is a national census, not a state census. The census includes jobs from a variety of solar businesses, many of which would not be affected by NEM tariff changes while others are not solar businesses at all.<sup>33</sup> Also, the employment numbers are not stated in full-time equivalent units, and there is no other study to confirm the claimed employment. The Solar Foundation was unable to provide Staff with any granular data when asked for more detailed state information and the state specific data regarding the state employment estimate. Staff also requested more detailed state-specific employment statistics from both TASC and SEIA for each solar company in their respective memberships. Both TASC and SEIA objected to providing that information, even by aggregated category. (Ex. 81A at 2-7).

### Commission Discussion and Findings

229. The information and testimony presented by Staff regarding the employment figures for Nevada’s solar industry indicates that the figures cannot be reasonably relied upon as an estimate of the number of solar jobs in Nevada or the number of jobs that could potentially be impacted by this Order. Further, no corroborating information from other sources was identified. No party to this proceeding provided any material support for the notion that a change in the

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<sup>33</sup> The list of Nevada companies included a number of large utility-scale solar developers as well as Southwest Gas Corporation, Western Nevada Supply Company, and the Commission. (Ex. 81 at Attachment AC-5; Tr. at 721-724.)

NEM rates and tariffs would result in the loss of nearly 6,000 solar jobs. TASC and SEIA's objections to providing information that would help confirm or refute the figures for rooftop solar jobs in Nevada are perplexing.

230. All arguments of the parties raised in these proceedings not expressly addressed herein have been considered and either rejected or found to be non-essential for further discussion in this Order.

THEREFORE, it is ORDERED that:

1. The Application of Nevada Power Company d/b/a NV Energy in Docket No. 15-07041 is APPROVED AS MODIFIED by this Order.

2. The Application of Sierra Pacific Power Company d/b/a NV Energy in Docket No. 15-07042 is APPROVED AS MODIFIED by this Order.

**Compliances:**

3. Within seven days of the effective date of this Order, Nevada Power Company d/b/a NV Energy shall file with the Commission revised tariff sheets consistent with this Order.

4. Within seven days of the effective date of this Order, Sierra Pacific Power Company d/b/a NV Energy shall file with the Commission revised tariff sheets consistent with this Order.

5. The Regulatory Operations Staff shall review the above-referenced revised tariff sheets for consistency with the Commission's Order. The revised tariff sheets shall become effective upon the completion of the Regulatory Operations Staff's review.

**Directives:**

6. In a future general rate case, Nevada Power Company d/b/a NV Energy shall study and account for the costs and benefits of higher penetration of net energy metering systems

on its distribution systems and include the results when completed to assist in determining whether rates need to be further modified for net energy metering ratepayers.

7. In a future general rate case, Sierra Pacific Power Company d/b/a NV Energy shall study and account for the costs and benefits of higher penetration of net energy metering systems on its distribution systems and include the results when completed to assist in determining whether rates need to be further modified for net energy metering ratepayers.

8. In its next general rate case, Nevada Power Company d/b/a NV Energy shall recommend (with additional support) what portion of transmission and generation demand costs should be shifted (tilted) between the basic service charge and volumetric commodity rate.

9. In its next general rate case, Sierra Pacific Power Company d/b/a NV Energy shall recommend (with additional support) what portion of transmission and generation demand costs should be shifted (tilted) between the basic service charge and volumetric commodity rate.

10. In its next general rate case, Nevada Power Company d/b/a NV Energy shall recommend whether time-of-use rates for net energy metering ratepayers should continue to be opt-in, opt-out, or mandatory in the future.

11. In its next general rate case, Sierra Pacific Power Company d/b/a NV Energy shall recommend whether time-of-use rates for net energy metering ratepayers should continue to be opt-in, opt-out, or mandatory in the future.

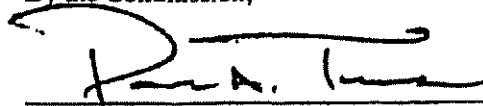
12. Failure to comply with the compliances and directives in this Order may subject Nevada Power Company d/b/a NV Energy to administrative fines pursuant to Nevada Revised Statute 703.380 and/or revocation of the underlying relief granted as appropriate.

13. Failure to comply with the compliances and directives in this Order may subject Sierra Pacific Power Company d/b/a NV Energy to administrative fines pursuant to

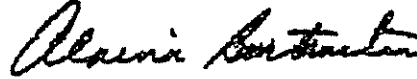
Nevada Revised Statute 703.380 and/or revocation of the underlying relief granted as appropriate.

14. The Commission may correct any errors that have occurred in the drafting or issuance of this Order without further proceedings.

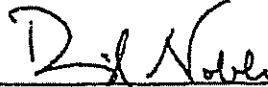
By the Commission,




PAUL A. THOMSEN, Chairman



ALAINA BURTENSHAW, Commissioner



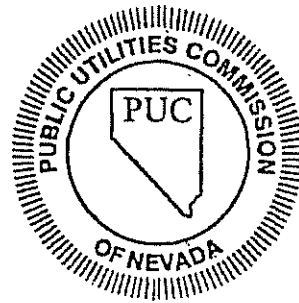
DAVID NOBLE, Commissioner and Presiding Officer

Attest:   
TRISHA OSBORNE,  
Assistant Commission Secretary

Dated: Carson City, Nevada

12.23.15

(SEAL)



**CERTIFICATE OF SERVICE**

Pursuant to NRAP 25(1)(c), I hereby certify that I am an employee of ALLISON MacKENZIE, LTD., Attorneys at Law, and that on this date, I caused the foregoing document to be served on all parties to this action by:

✓ Electronic Notice

as follows:

K. Kevin Benson, Esq.  
Lori M. Story, Deputy Attorney General  
Adam Paul Laxalt, Attorney General

DATED this 25<sup>th</sup> day of May, 2016.

/s/ Nancy Fontenot  
NANCY FONTENOT