15-07041

Public Utilities Commission of Nevada

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Vote Solar

VIA E-Filing

October 27, 2015

Breanne Potter
Commission Secretary
Public Utilities Commission of Nevada
1150 East William Street
Carson City, Nevada 89701-3109

Re: PUCN Docket Nos. 15-07041 and 15-07042
Direct Testimony and Exhibits of Rick Gilliam

Dear Ms. Potter,

Enclosed please find the Direct Testimony and Exhibits of Rick Gilliam for filing on behalf of Vote Solar in the above-referenced dockets.

Please feel free to contact me with any questions or concerns.

Sincerely,

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Encls.
cc: Parties of Record

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 metering tariffs.	)	Docket No. 15-07041
Application of Sierra Pacific Power Company d/b/a NV Energy for approval of a cost-of-service study and net metering tariffs.	)	Docket No. 15-07042

DIRECT TESTIMONY AND EXHIBITS OF RICK GILLIAM

ON BEHALF OF VOTE SOLAR

OCTOBER 27, 2015

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BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Direct Testimony of Rick Gilliam
On Behalf of Vote Solar
Docket Nos. 15-07041 and 15-07042

I. Introduction

Q. Please state your name and business address.

A. My name is Rick Gilliam. My business address is 590 Redstone Drive, Suite 100, Broomfield, Colorado.

Q. On whose behalf are you submitting this direct testimony?

A. I am submitting this testimony on behalf of Vote Solar.

Q. What is Vote Solar?

A. Vote Solar is a non-profit grassroots organization working to foster economic opportunity, promote energy independence, and fight climate change by making solar a mainstream energy resource across the United States. Since 2002, Vote Solar has engaged in state, local, and federal advocacy campaigns to remove regulatory barriers and implement key policies needed to bring solar to scale. Vote Solar has approximately 60,000 members nationally and 300 in Nevada, including at least 230 within Nevada Energy's ("NVE") service territory.

Q. By whom are you employed and in what capacity?

A. I serve as the Program Director of Distributed Generation ("DG") Regulatory Policy for Vote Solar. I oversee policy initiatives, development, and implementation related to distributed solar generation. I also review regulatory filings, perform technical analyses, and testify in commission proceedings around the country relating to distributed solar generation.

Q. Please describe your educational background.

A. I have a Masters Degree in Environmental Policy and Management from the University of Denver, Denver, Colorado. I also have a Bachelor of Science Degree in Electrical Engineering from Rensselaer Polytechnic Institute in Troy, New York.

Q. Please describe your experience in utility regulatory matters.

A. Prior to joining Vote Solar in January of 2012, my regulatory experience included five years in the Government Affairs group at Sun Edison, one of the world's largest renewable resource developers, as a manager, director, and eventually vice president; 12 years with Western Resource Advocates (formerly known as the Land and Water Fund of the Rockies) as Senior Policy Advisor; and 12 years in the Public Service Company of Colorado rate division as Director of Revenue Requirements. Prior to that, I spent six years with the Federal Energy Regulatory Commission ("FERC") as a technical witness. All told, I have over thirty-five years of experience in utility regulatory matters, including experience in reviewing legislation and testifying before legislative committees in a number of states on renewable energy, solar energy, and net metering, among other issues. A summary of my background is included as Exhibit RG-1.

Q. Have you previously testified before the Nevada Public Utilities Commission ("Commission")?

A. Yes, I have.

Q. Before what other utility regulatory commissions have you testified?

A. I have testified in proceedings before the Arizona Corporation Commission, Colorado Public Utilities Commission, Idaho Public Utilities Commission, New Mexico Public

Regulation Commission, Utah Public Service Commission, Wisconsin Public Service Commission, Wyoming Public Service Commission, and the FERC.

II. Purpose of Testimony and Summary

Q. What is the purpose of your testimony in this proceeding?

A. My testimony addresses NVE's request for Commission approval of a cost of service study and net metering tariffs. NVE seeks to establish separate customer classes and new rate designs, rates and rules for prospective residential and small business net metering customers, i.e. those submitting applications for connecting distributed solar generation ("DSG") to one of the NVE operating companies subsequent to the 235 MW threshold being reached ("NEM 2 customers"). Specifically NVE's net metering tariff requests consist of three new customer classes for its Northern operating company, Sierra Pacific Power Company ("SPPC"); four new customer classes for its Southern operating company, Nevada Power Company ("NPC"); nine new rate schedules for NPC; seven new rate schedules for SPPC; eight modified rate schedules for NPC; seven modified rate schedules for SPPC; and modification of Rules 9 and 15 for each operating company. This request was triggered by the passage of Senate Bill 374 ("SB 374") earlier this year.[1]

The purpose of my testimony is to evaluate NVE's proposals to segregate NEM 2 customers from the customer class under which they are currently receiving electric service and place them under new and very different rate structures and tariffs.[2]

Q. Please summarize your testimony.

[1] SB 374, as enrolled, is included as Exhibit RG-2.

[2] As the net metering capacity threshold has already been reached, the Commission approved interim net energy metering tariffs for NEM 2 customers that reflect the terms and conditions of the existing NEM 1 (pre-threshold) program while NEM 2 tariffs are being considered. *See* Interim Order, ¶ 98, PUCN Docket Nos. 15-07041, 15-07042 (Sept. 1, 2015).

A. NVE's proposals to segregate new residential and general service DSG customers into their own rate classes with different rates and rate structures is based on a mischaracterization of SB 374 and is unsupported by the evidence NVE has put forward.

I conclude that NVE's rationale underlying its proposal is unfounded. Specifically, NEM customers do not have unique load and cost characteristics as compared to non-NEM customers, and do not unreasonably shift costs to non-NEM customers under current rates. My findings are consistent with the Energy + Environmental Economics ("E3") cost-benefit study performed last year for this Commission.

The marginal costs of service studies ("MCS") submitted by NVE includes flawed NEM load shapes, which were used to allocate transmission and distribution costs; over-allocation of customer costs to the NEM classes; and double-recovery of revenue related to NEM customer excess generation. When these flaws are corrected, the MCS study actually indicates that the cost to serve NEM customers is less than the cost to serve non-NEM customers. Indeed, these customers should receive a small credit on their current bills to reflect this finding.

In addition to these flaws, there are underlying data problems with the MCS that likely lead to skewed results. However, it isn't possible to fully understand the impact of these data problems at this time, and the data issues cannot be addressed in this proceeding.

I further conclude that NVE's tariff proposals do not meet the purpose and policy of SB 374, do not adhere to the marginal cost requirement in SB 374, and incorporate a tariff element, namely a demand charge, that provides poor pricing signals and is bad

for the solar market.

In light of the flaws in NVE's proposals and the lack of any existing unreasonable cost shift, I recommend the Commission reject NVE's proposed tariffs and permit NEM 2 customers to continue to take service under current rates, as reflected in the recently approved interim tariff.

However, in an effort to continue to gather information to help inform future potential rate design, I have developed an alternate tariff based upon appropriate corrections to the MCS, where possible. The alternate tariff complies with SB 374, does not include demand charges, and reflects marginal costs in its peak time-of-use period. In addition, it collects the embedded revenue requirement and does not result in an unreasonable cost shift.

I recommend the Commission implement this alternate time of use ("TOU") tariff through shadow billing so that NVE can gather more data and the Company and NEM 2 customers can gain a better understanding of the effects of a marginal cost based rate before any such rate would go into effect. In other words, under my proposal, NEM 2 customers would be billed under the existing rate (as reflected in the interim tariff), but would also see the effect of the alternate TOU tariff applied to their billing determinants for a period of at least a year. NVE can then make an informed decision about pursuing a TOU-based NEM rate, as SB 374 permits.

Finally, I recommend that each operating company of NVE perform a new MCS study using consistent data and incorporating the other corrections included herein as part of their next rate case. A corrected MCS will help the Company and Commission determine whether a new rate for NEM 2 customers is beneficial and in the public

interest.

III. Overview of NVE's NEM Rate Proposals

Q. Please describe NVE's proposal to establish separate net metering customer classes and new tariffs for these customers.

A. NVE proposes to establish four new customer classes for NPC and three new customer classes for SPPC.[3] Each new class includes an increased customer charge, a new demand charge, and a reduced energy charge and export credit. Each new rate class also has a TOU option. The net effect is that NEM 2 customers will be paying more for NVE power as a result of making the choice to install DSG in their homes and businesses. The proposed new rate classes for NEM 2 customers parallel the existing rate classes in which NEM 1 customers reside under the existing two-part rate structures (i.e. with no demand charges). Table 1 summarizes the existing and proposed new classes.

Table 1: Existing NEM 1 and Proposed NEM 2 Rate Classes

Company	NEM 1 Rate	NEM 1 Option	NEM 2 Rate	NEM 2 Option
NPC	RS	ORS TOU	RS-NEM	ORS TOU-NEM
NPC	RM	ORM TOU	RM-NEM	ORM TOU-NEM
NPC	LRS	OLRS TOU	RSL-NEM	OLRS TOU-NEM
NPC	GS	OGS TOU	GS-NEM	OGS TOU-NEM
SPPC	D1	OD1 TOU	D1-NEM	OD1 TOU-NEM
SPPC	DM1	ODM1 TOU	DM1-NEM	ODM1 TOU-NEM
SPPC	GS1	OGS1 TOU	GS1-NEM	OGS1 TOU-NEM

Q. What is the basis of NVE's proposals?

A. NVE submitted its applications pursuant to Section 4.5 of SB 374 and ordering

[3] There are no current NEM customers for SPPC's DM-1 class and SPPC has not developed hourly marginal costs for these customers. As a result, my analysis herein excludes the SPPC DM-1 NEM group.

paragraph 2 in the Commission's March 31 Order in Docket No. 14-06009.[4] As stated in the applications, NVE's justification for the proposals is the requirements of SB 374 and the Commission's order.[5]

Q. Does NVE present any other reason to support its proposal for a separate rate class for NEM customers and three-part rate design?

A. Yes. NVE contends that customers who install renewable distributed generation have unique load and cost characteristics, including different metering and customer service and customer accounting requirements, and different load factors and load levels.[6] NVE states that its proposal recognizes these differences.[7] I address these rationales below.

IV. The Role of SB 374

Q. What is the role of SB 374 in this proceeding?

A. SB 374 is the driving force behind this proceeding. The legislation requires utilities to offer net metering to customers who seek to install systems after the capacity threshold is met. To this end, the bill directs utilities to file proposed net metering tariffs with the Commission and outlines the process for Commission review. With the important caveat that I am not a lawyer and am not offering legal opinions, I will offer my view of the plain language of the bill, as it relates to this proceeding, based on my regulatory and legislative experience.

Q. What is your understanding of what SB 374 requires?

A. Section 4.5 of SB 374 requires that each utility file a net metering tariff required by

[4] NPC and SPPC Applications at 1. NVE also filed its applications pursuant to NAC § 703.535.
[5] NPC and SPPC Applications at 3-4 (Part II: Justifications for the Application).
[6] NPC and SPPC Applications at 1.
[7] See, for example, NPC Narrative (Vol. 2) at 3.

Section 2.3 and a cost-of-service study by July 31, 2015. Section 2.3, in turn, requires each utility to offer net metering to customer-generators who submit applications to install net metering systems within its service territory after the date on which the cumulative capacity cap is met. The tariff must establish the terms and conditions for net metering service for customer-generators who apply to install net metering systems after the date the tariff takes effect.

Q. Based on your review of SB 374, what is your understanding of the purpose of the legislation's requirement that utilities offer net metering to new (i.e. NEM 2) customers in accordance with approved tariffs?

A. I believe the legislature made clear, in Section 2.8, that its purpose and policy in enacting this requirement, along with the existing net metering law, is to:

1. Encourage private investment in renewable energy resources;
2. Stimulate the economic growth of this State;
3. Enhance the continued diversification of the energy resources used in this State; and
4. Streamline the process for customers of a utility to apply for and install net metering systems.

I believe it is important for the Commission to keep this purpose and policy in mind when reviewing NVE and other parties' net metering proposals in this proceeding.

Q. In reviewing and approving a tariff for NEM 2 customers, does the Commission have to establish separate rate classes for net metered customers?

A. No. Section 2.3 of SB 374 addresses this issue. Specifically, paragraph 2 of this section states, among other things, the following:

2. For the purposes of evaluating and approving any tariff filed with the Commission pursuant to subsection 1 and otherwise carrying out the provisions of this section, the Commission:

(a) *May* establish one or more rate classes for customer-generators.

. . . .

(e) *Shall not* approve a tariff filed pursuant to subsection 1 or authorize any rates or charges for net metering that unreasonably shift costs from customer-generators to other customers of the utility.

(Emphasis added).

Note that "establish[ing] one or more rate classes for customer-generators" is an option for the Commission and not a requirement, as indicated by the use of the word "may." The requirement placed on the Commission is to "not approve a tariff" or "authorize any rates or charges" that unreasonably shift costs to other customers of the utility.

Q. Do you agree that the Commission should not approve rates that unreasonably shift costs?

A. Yes. Regulatory commissions, like the PUCN, have a general responsibility to ensure that all rates are just and reasonable and to avoid unjust discrimination in rate relationships among customers and customer classes.[8] Thus, while SB 374 focuses on cost shifting from customer-generators to other customers, the Commission should also avoid rates that unreasonably shift costs in the other direction.

Q. Do you think the Commission should approve a separate rate class for new net metering customers?

A. No. A separate rate class is not necessary at this time for several reasons I discuss in detail below. There is no unreasonable shifting of costs under the current interim

[8] *See* N.R.S. 704.040 (charges for services must be just and reasonable) and 704.120 (the Commission has the power to fix rates found to be unjust, unreasonably or unjustly discriminatory, or preferential).

tariff. As I discuss later in my testimony, my analysis of the current rates indicates that the cost to serve NEM customers is less than the cost to serve non-NEM customers.

In addition, the penetration level of NEM customers is still small and, given the uncertainty regarding the future of the federal investment tax credit, could well remain so. NVE has not shown infrastructure cost increases that have resulted or will result in increased costs at current or anticipated penetration levels.

Q. In approving a tariff for NEM 2 customers, does the Commission have to approve a three-part rate design, including demand charges, as NVE has proposed?

A. No. The language of Section 4.5(3) of SB 374 is very careful to not specify a particular rate form through the use of the terms "may include, without limitation." Additionally, and contrary to what NV Energy suggests in its application and testimony,[9] I do not believe that SB 374 establishes a preference for the three-part rate structure the Company proposes in these cases.

Q. Do you think the Commission should approve a demand charge component in NEM 2 rates?

A. No. Demand charges may be appropriate for large commercial and industrial customers that are able to manage their energy and peak demand levels, but are wholly inappropriate for small customers, as I discuss below. Small customers have little ability to manage the peak demand upon which demand charges are based, and rooftop installations have little effect on a customer's peak demand, regardless of orientation. Finally, demand charges have been demonstrated to have a significant

[9] *See, e.g.*, NPC and SPPC Applications at 3; NPC and SPPC Narratives at 4.

negative impact on the market for distributed solar resources. Therefore singling out DSG customers and subjecting them to these charges would not "[e]ncourage private investment in renewable energy resources."[10]

Q. Are there other provisions of SB 374 that you believe are relevant to this proceeding?

A. Yes. N.R.S. 704.085 places a prohibition on mandatory TOU rates for residential customers. However, Section 2.5 of SB 374 creates an exception for schedules or rates imposed on customer-generators (in other words, net metered customers). This express exception to the existing bar on mandatory TOU rates for residential customers creates the option of TOU-based rates for residential customer-generators. Another relevant provision is Section 4.5(3), which provides that charges included in any new net metering tariff "must adequately reflect the marginal costs of providing service to customer-generators."

Q. What is the timeline for considering new NEM tariffs?

A. SB 374 requires each utility to file tariffs and a cost of service study by July 31, 2015, which NPC and SPPC have done. The Commission must review each proposed tariff and issue a written order approving or disapproving, in whole or in part, the proposed tariff by December 31, 2015. The Commission may also make modifications without limitation. If, for any reason, the Commission does not approve a tariff by the end of the year, the utility must offer net metering in a manner consistent with existing NEM provisions. In essence, the current net metering policies and practices remain in place until a new tariff is approved.

[10] SB 374, Section 2.8.

Q. Please summarize your view of the requirements of SB 374 as it relates to NVE's proposal in these cases.

A. As it relates to this proceeding, I believe the key requirements of SB 374 are (1) each utility is to submit a NEM 2 tariff and a cost of service study; (2) the Commission is to approve or reject the tariff and may make modifications without limitation; (3) the rate components of the tariff are to reflect marginal costs incurred by the utility to provide service to customer-generators; and (4) the Commission is not to approve a tariff or authorize any rates or charges for net metering that unreasonably shift costs from customer-generators to other customers of the utility.

At least as important are the elements *not required* by SB 374. It does not require the establishment of a separate rate class, and it does not require the use of a three part rate that includes a demand charge.

Additionally, SB 374 removes the bar on mandatory TOU rates for residential customers who are users of net metering systems, creating a new potential option for NEM rates going forward.

Finally, SB 374 provides flexibility to the Commission, should it not be able to approve a tariff before the end of the year for any reason.

Q. In addition to SB 374, you also mentioned the Commission's March 31 Order in Docket 14-06009. What did that Order say about a cost-of-service study and rate changes?

A. Paragraph 2 from the Commission Order in Docket No 14-06009 is similar to the requirements of SB 374 in that it seeks submission of a cost of service study along with any proposed rate design changes:

> 2. Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy shall each conduct a cost of service study to determine whether any systemic rate design changes should be made for its customer classes in response to the requirements of net energy metering/distributed generation customers. The cost of service studies, along with any proposed rate design changes, shall be filed with the Commission no later than July 31, 2015.

Q. Did the Order direct NVE to establish a separate rate class and/or demand charges for NEM customers?

A. No, it did not.

V. NVE's "Unique Load Characteristics and Cost" Rationale Does Not Justify Separate NEM Rate Classes

Q. Turning to the reasoning underlying NVE's proposal, what does NVE say about NEM customer characteristics in proposing to separate DSG customers into their own rate classes?

A. In its Applications, NVE suggests that customers who install renewable distributed generation have unique load and cost characteristics. NVE states:

> Net metering customers are partial requirements customers requiring a standby aspect to their electrical service, have different metering and customer service and customer accounting requirements, and have different load factors and load levels. For instance, on an annual basis, the average single family residential NEM1 customer has a higher total electrical usage than the average single family full requirements residential customer at [Nevada Power/Sierra].[11]

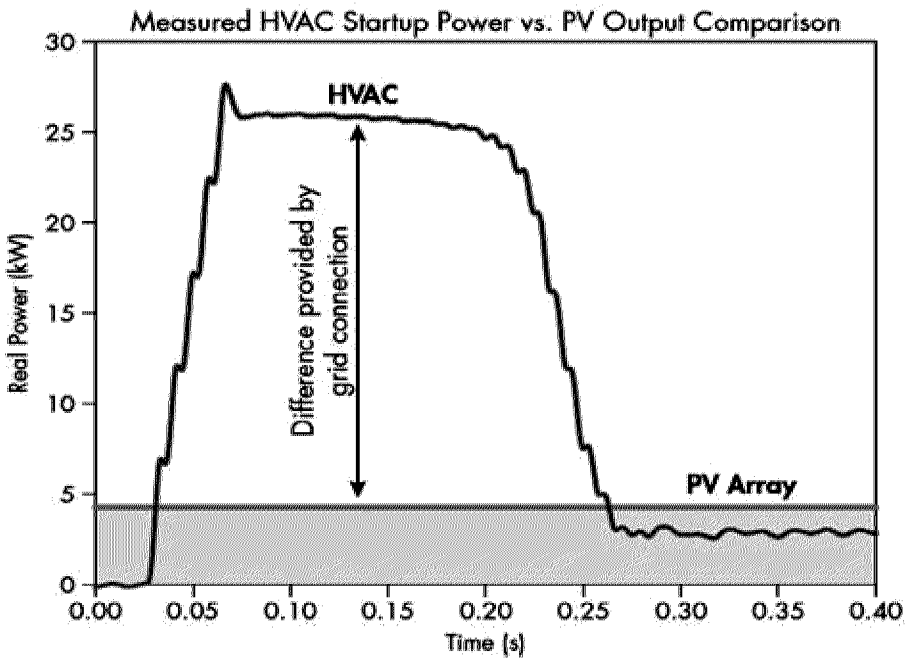
Q. Do net metered customers require a standby aspect to their electric service, as NVE asserts?

A. All customers have a standby aspect to their electric service. Residential service loads are not constant; they vary throughout the day, in some cases dramatically, and utilities must stand ready to meet the entire customer load at all times. For example,

[11] NPC and SPPC Applications at 1.

when a refrigerated air conditioner turns on, there is a spike in demand that can be quite high relative to a typical PV array as shown in Chart 1 below.[12]

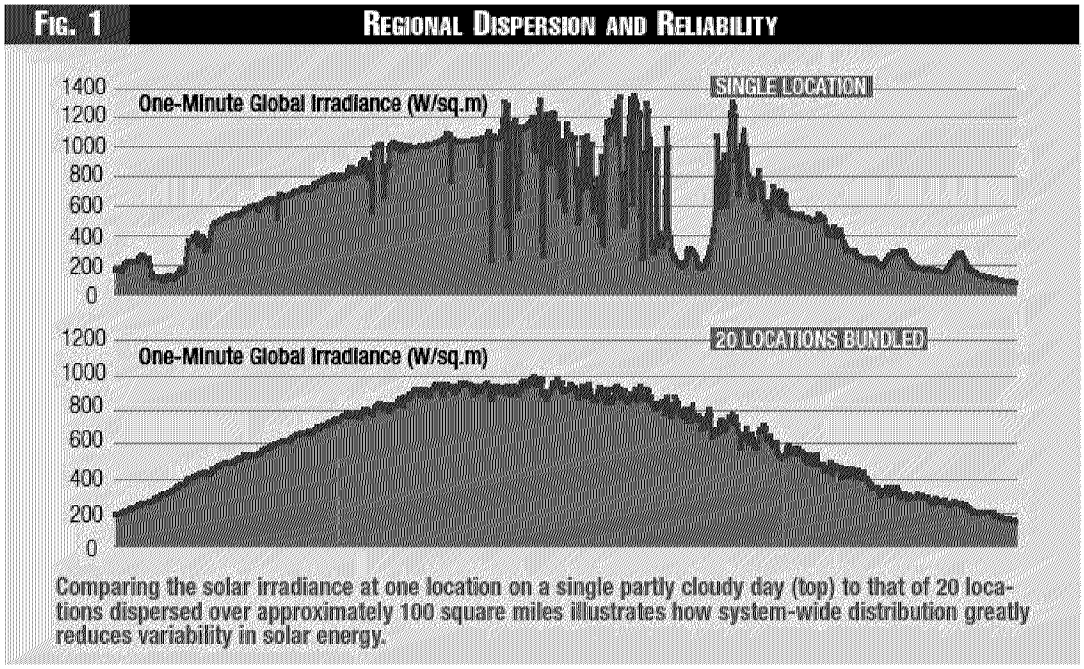
Chart 1. Air Conditioning Startup Power



It's easy to see from this chart that if a group of air conditioners of this type started at the same time, it could cause serious problems for the utility. However, the diversity that is inherent in loads allows utilities to build their systems at a capacity level that is below the sum of all the maximum loads of each customer. Nevertheless, NVE must "stand ready" to provide the startup power necessary for air conditioners to work. In the same way that load diversity allows economies of infrastructure capacity, so too does the diversity of solar generation. The following Chart 2 demonstrates the variability in a single PV array in comparison to a diverse group of arrays.

[12] Source: Colorado PUC Docket No. 14M-0235E: Response of Public Service Company of Colorado to questions issued in Decision No. C14-1055-I and Attachment A (Sept. 24, 2014) at 34.

Chart 2. Effects of Geographic Diversity[13]



Because distributed PV systems are not *uniformly* intermittent, a group of PV systems smooths the variability to a more predictable pattern—similar to a group of residential loads. Thus, all customers (including NEM customers) individually have an inherent standby component but as a diversified group are predictable. Standing by ready to serve is the core business of the utility for all customers.

Q. Do the NEM customers of NVE have different metering and customer service and customer accounting requirements?

A. NEM customers are likely to have somewhat higher customer costs, particularly for meter requirements that non-NEM customers do not have, but NVE's customer costs appear to be generally overstated, as I discuss later in my testimony.

[13] Source: Public Utilities Fortnightly, February 2009.

Q. Are the load factors of NEM customers unique?

A. NVE has not provided evidentiary support demonstrating any distinct differences between the load factors of the NEM customer groups and the non-NEM customer groups in this proceeding.

Moreover, NVE has not provided evidence that the NEM customer groups differ from other subgroups of residential or small commercial customers. There are customer subgroups that have common characteristics such as differing technologies behind the meter. For example, different types of HVAC systems can also affect load factors.[14] Yet NVE has apparently not studied or proposed a separate class for differentiating HVAC equipment.

Q. Did NVE study other subgroups of residential or general service customers?

A. No.[15]

Q. Are the load levels of NEM customers unique?

A. No. The fact that the average load level of a subset of customers is higher than the average of the larger group from which it comes before installing solar, or below the average after installing solar, is not adequate justification for segregation and discriminatory rate treatment. NVE had provided no evidence of a *unique* difference in load levels for NEM customers.[16] Even if it could, it would be a slippery slope of segregating customers by load level.

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[14] In a recent rate case in New Mexico, for example, a utility provided an analysis of evaporative and refrigerated cooling systems that revealed a significant correlation between refrigerated air conditioning and lower load factors (as compared to evaporative cooling). *See* Direct Testimony and Exhibits of Rick Gilliam on behalf of Vote Solar, p. 24, NM PRC Case No. 15-00127-UT (filed September 29, 2015).

[15] NVE response to discovery request no. VS 1-14. This and other referenced discovery responses are attached as Exhibit RG-3.

[16] Returning to the New Mexico HVAC example in footnote 14, the utility data showed that consumption (i.e. load levels) differs dramatically between customers with each type of cooling equipment. *See* Direct Testimony and Exhibits of Rick Gilliam on behalf of Vote Solar, p. 25, NM PRC Case No. 15-00127-UT (filed Sept. 29, 2015).

Q. Do you think the load factors and load levels of NEM customers justify creation of new rate classes as proposed by NVE?

A. No. Every subgroup of residential and small business customers that has something in common such as a particular size or load factor or behind the meter equipment (e.g. evaporative cooling vs. refrigerated air conditioning) could then be subject to segregation into a separate rate class. Customers with higher average consumption contribute more to the fixed costs of the utility than those with lower average consumption. The added complexity of subdividing residential and small commercial customers into affinity groups and designing separate rates for each is unlikely to add significant benefits, and would also likely harm low- and fixed-income ratepayers

Q. Do you think NVE provides sufficient rationale for separate NEM rate classes?

A. No. The issues NVE raises as being unique to NEM customers are common to other groups of customers.

VI. NVE's Characterization of Increasing Distribution Costs is Unfounded and Misleading

Q. Please explain your concern with NVE's characterization of distribution costs.

A. In several parts of the Narrative (e.g. Sections 2K, 3A(8), and 9), NVE suggests increased costs associated with the deployment of DSG. However, NVE did not provide any evidence that such costs are currently being experienced or are imminent. For example, NVE stated in Section 3A(8) of the Narrative "it is still unclear as to whether or not there are additional costs (e.g. transformer replacement, switch upgrades, etc.)" but was unable to describe the specific circumstances that would lead to such costs other than to say:

> As explained in Sections 9.A and B of the Narrative, the aggregate generating capacity, penetration level, and clustering effects of Net Energy Metering (NEM)

> installations, *if sufficiently large, could, in the future*, result in additional costs for system improvements on the NV Energy distribution system.

(Emphasis added).

In section 2K of the Narrative, NVE states "as DG penetration increases, costs incurred to protect and strengthen the grid and manage situational impacts, such as handling two-way power flows and high levels of DG installation on distribution lines, will be incurred." Despite repeated requests for a definition of "high levels" NVE could not provide an answer, only stating that it is a relative term and restating the interconnection standards.

Section 2K of the Narrative goes on to warn:

> As higher concentrations of DG are seen in other utilities' service territories, new impacts on the distribution system have arisen that require remedial action, including changes that push peak hours past sunset when DG is no longer generating.

When questioned about these claims, NVE identified two significant new impacts—reverse power flow and voltage rise—but could only identify Hawaiian Electric Company (HECO) as experiencing "DG penetration levels on certain distribution circuits in excess of the peak load on those circuits" (in other words, reverse power flow). [17] It also noted the three large California utilities were "experiencing generally higher DG penetration on their distribution systems as compared to other utilities" but made no claim of new impacts.

Q. Does HECO have high penetration of DSG?

A. Yes. HECO has the highest penetration of distributed solar on its system in the nation by far. According to NVE, these impacts, for which HECO is the only example, required "new or increased utility management of existing devices on distribution

[17] NVE response to discovery request no. VS 1-47. Included in Exhibit RG-3.

circuits, additional devices, and augmented protection schemes and monitoring systems." When pressed for specifics however, the Company responded: "NV Energy does not have detailed knowledge of reverse flow or voltage rise on other utilities' distribution circuits."[18]

Q. How can a utility address these issues?

A. In addition to "different types of generation that can be quickly deployed" as noted in Section 2K of the Narrative, NVE also identified "participation in an imbalance market, demand response and storage technologies" as other means of following intermittent resources as NEM concentrations increase.[19]

Q. Has NVE pursued any of these options?

A. Yes. NVE is in the process of joining the Energy Imbalance Market and has proposed demand response programs, both of which will "assist with the integration of variable energy resources."[20] Apparently it has not yet explored integration opportunities with storage.

It should be noted that, as island systems, the HECO companies do not have the luxury of leaning on an imbalance market, and must manage variability alone.

Q. What conclusions do you draw regarding additional costs of DG on the distribution system?

A. No problems have been experienced or are anticipated in the near term. Penetration levels are too small to require additional costs on the part of NVE. This view is supported by NVE's discussion in Section 9 of the Narrative:

> There are approximately 9,171 net metering installations in NV Energy's service

[18] NVE response to discovery request no. VS 3-15. Included in Exhibit RG-3.
[19] NVE response to discovery request no. VS 1-49. Included in Exhibit RG-3.
[20] NVE response to discovery request no. VS 3-17. Included in Exhibit RG-3.

territory, 7,477 at Nevada Power and 1,694 at Sierra. This represents approximately 0.76 percent of all NV Energy customers, which is *a very low level of overall penetration*. These installations are currently dispersed in the service territory sufficiently that *there are not significant clusters of such installations on a distribution feeder or physical area*." "Lower overall penetration levels of Net Metering customers that are geographically dispersed (not clustered) *do not yet cause any significant detrimental effects on the distribution system*, and therefore, do not support altering of distribution design criteria and distribution planning methods to account for such installations.

(Emphasis added).

NVE was also unable to provide examples of other utilities that are experiencing DG-related issues that might result in cost increases with the possible exception of HECO.

In sum, NVE has provided no evidence of current cost increases, imminent cost increases, nor any possibility of cost increases in the future until penetration levels reach extremely high levels. If and when that occurs, other utilities will almost certainly have developed strategies to manage such penetration levels. For the purposes of this proceeding, these threats of distribution cost increases are unfounded and misleading, and should be rejected.

VII. NVE's Marginal Cost Analysis Is Deficient and Does Not Support the Company's Proposal

Q. What are your overall conclusions regarding NVE's MCS?

A. NVE's MCS suffers from several flaws regarding its methodology and underlying data. As a result, I recommend that it be rejected as filed. Notwithstanding these flaws, the study's results do not support NVE's NEM 2 rate proposal. Using the Company's own data and study (with corrections made), I have performed an analysis of the marginal costs to serve the NEM 2 classes and found that such cost of service

is less than the marginal cost of service to the rate classes in which these customers currently reside. In other words, the Company's own data show that there is no existing unreasonable cost shift from NEM to non-NEM customers and that the Company's proposal would constitute an unreasonable cost shift in the other direction.

Q. Please describe the MCS as filed by NVE.

A. The MCS is an analysis of the marginal costs of providing service by each of the two utility companies. The costs are spread out over the hours in the year on the basis of loss of load probability ("LOLP") for production costs, probability of peak ("POP") for transmission and distribution, and marginal energy costs in each hour. The LOLP, POP, and marginal energy cost studies are derived from production cost modeling developed in the resource planning process.

Q. What role did the MCS play in developing NVE's rate proposal?

A. The MCS was used to allocate costs, i.e. to assign cost responsibility to the NEM customer groups in relation to other customer classes. The resulting allocations spread cost responsibility within the embedded revenue requirement ("ERR"). These allocated ERR costs were then used to develop the proposed rates.

Q. Do you generally support the concept of the marginal cost analysis?

A. Yes. I generally support marginal cost analysis to develop improved price signals. However the analysis remains generally a near-term view.

Q. Do you believe that NVE's MCS is sufficient to evaluate the benefits and costs of DSG?

A. No. The MCS, as submitted by NVE, is used to allocate embedded costs across customer classes. The rates themselves are derived from the ERR. As such, the combined revenue requirement and allocation analysis does not take a long enough view to capture the longer-term, i.e. 20-25 year, benefits of distributed solar generation.

Q. Is there additional relevant information for the Commission to consider in this regard?

A. Yes. The Commission opened an investigation to examine the costs and benefits of net metering in Docket No. 13-07010. As part of the investigation, the PUCN commissioned E3 to forecast the costs and benefits of net metering in Nevada. The process utilized included an advisory group comprised of stakeholders, including representatives of NVE.

Q. What did the E3 study conclude?

A. The E3 study found that benefits exceed costs based upon the conditions known at the time.

Q. How, if at all, did NVE address the E3 study in its applications?

A. NVE addressed the E3 study briefly. NVE pointed primarily to the decline in the cost of utility-scale solar that has occurred since the study was performed, which, in its view, would change the results.

Q. How do you respond?

A. When a comprehensive analysis like the E3 study is undertaken, the information used in the study is usually consistent. If an update is required, all of the data should be updated, not limited to a few inputs. Therefore, the E3 study results should stand until such time as the study is comprehensively updated. The study shows that benefits exceed costs under current rates (i.e. NEM 1 rates), with the implication that current rates do not result in a shifting of costs.

Q. Turning back to NVE's MCS, do you support the MCS submitted by the two utilities in this proceeding?

A. No.

Q. Why not?

A. I have concerns with several of the approaches used by NVE in its development of the MCS. These problems include the transmission and distribution load shapes; the over-allocation of customer costs to the NEM classes; and the double counting of excess NEM generation revenues. I also have concerns regarding the underlying data used, which I discuss later in my testimony.

Q. Before turning to these concerns, what do the Company's MCS results show?

A. The results of NVE's MCS are summarized in Table 2 and Table 3 below. As shown in the tables, NVE's analysis resulted in a rate for NEM residential customers that was 6-10% higher than the comparable non-NEM residential rate and a rate for small commercial customers that was 4-6% lower than the comparable non-NEM small commercial rate.

Table 2: Nevada Power Company MCS Study Results[21]

	RS-NEM	RM-NEM	LRS-NEM	GS-NEM
Revenue Allocated to Class ($000)	$9,130	$70	$47	$220
Average Cost per kWh	$0.14614	$0.13057	$0.11745	$0.10458
Comparable Non-NEM Rate	$0.13520	$0.11915	$0.11069	$0.10849
Cost of NEM versus non-NEM	108%	110%	106%	96%

Table 3: Sierra Pacific Power Company MCS Study Results[22]

	D1-NEM	GS-1 NEM
Revenue Allocated to Class ($000)	$1,293	$494
Average Cost per kWh	$0.12465	$0.10316
Comparable Non-NEM Rate	$0.11811	$0.10919
Cost of NEM versus non-NEM	106%	94%

Q. Do these results support NVE's assertion that there is a cost shift between NEM and non-NEM customers?

A. No, I don't believe they do. It is important to note first that the MCS results are in no way a comprehensive examination of the costs and benefits of distributed generation; rather, they are a small piece of the puzzle. The MCS looks only at the marginal cost to serve NEM customers and does not take into account the benefits of distributed generation. That said, NVE's MCS shows that small commercial NEM customers have a lower cost to serve than the small commercial non-NEM customers. This means that even under the flawed assumptions used in NVE's MCS, and even without consideration of the benefits of distributed generation, there is no cost shift from small commercial NEM customers to small commercial non-NEM customers. In fact,

[21] NPC Statement O, p. 5; Statement O workpapers, pp. 1, 3, 5 and 7 (Vol. 2). The average cost per kWh is derived by dividing the revenue allocated to the class by the total delivered kWh.

[22] SPPC Statement O, p. 1; Statement O workpapers, pp. 1, 5 (Vol. 2). The average cost per kWh is derived by dividing the revenue allocated to the class by the total delivered kWh.

the NVE study indicates a small shifting of costs from non-NEM customers to NEM customers.

Q. What about residential NEM customers?

A. NVE's MCS shows a slightly higher cost to serve residential NEM customers. However, as discussed in the next section, when the study's flawed assumptions are corrected, the MCS demonstrates that the cost to serve residential NEM customers is below the cost to serve residential non-NEM customers.

1. Transmission and Distribution Load Shapes

Q. What role do the transmission and distribution load shapes play in the MCS?

A. NVE has developed a load shape for NEM customer classes for each category of costs in its marginal cost study: energy costs, generation costs, transmission costs, and distribution costs. I have reviewed the load shapes developed for each cost category and have concerns about the load shapes developed for transmission and distribution.

Q. Please explain your concern with NVE's transmission load shapes.

A. NVE uses an adjusted delivered load shape for NEM customers, described as "the total load shape, scaled downward to reflect the difference between the non-coincident peaks of the total load shape and the delivered load shape" to assign transmission costs to the new NEM customer classes.[23] NVE's description of its method was not a model of clarity.

Q. What is NVE's rationale for using an adjusted load shape?

A. NVE's rationale for adjusting the delivered load shape is that DSG provides no capacity value to the transmission system, i.e. no ability for DSG to avoid future costs

[23] *See, e.g.,* NPC Narrative at 22 (Vol. 2, p. 24 of 187)

of transmission, because "the utility can never know how much of that energy will be delivered back to the system, and the utility has the responsibility to bank whatever is received for the individual NEM customer's future benefit."[24]

Q. Do you agree with NVE's rationale?

A. No. First, the "banking" of customer exports is merely an accounting convenience. Physically, the utility does nothing to manage the outflows from a NEM customer's site. At current and anticipated penetration levels, exported energy is not expected to reach the transmission system. As a result, there is no transmission-related cost associated with NEM exports. Indeed if anything, NEM reduces the loading on the transmission system and should generate cost savings over time.

Second, NVE's claim that distributed solar provides no capacity value is astounding given the number of studies that find capacity values, sometimes significant values, at the generation and transmission level.[25] NVE finds a capacity value of 38% based upon its utility scale systems (892 MW), stating that the capacity value of DSG was assumed to not exceed that of utility scale.[26] NVE's assumption ignores the fact that DSG is distributed across the grid and not concentrated as are utility-scale systems in a centralized location. The concentration makes the large-scale systems susceptible to the same intermittency issues related to cloud events faced by small systems. Thus,

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[24] *Id.*

[25] *See*, for example, Rocky Mountain Institute, A Review of Solar PV Benefit and Cost Studies, April 2013, available at http://www rmi.org/Knowledge-Center%2FLibrary%2F2013-13_eLabDERCostValue; Clean Power Research, LLC, Maine Distributed Solar Valuation Study, available at http://www maine.gov/mpuc/electricity/elect_generation/documents/MainePUCVOS-FullRevisedReport_4_15_15.pdf (revised Apr. 14, 2015); Synapse Energy Economics, Inc., Net Metering in Mississippi: Costs, Benefits, and Policy Considerations, available at http://www.synapse-energy.com/sites/default/files/Net%20Metering%20in%20Mississippi.pdf; Fairly, Peter, IEEE Spectrum, Minnesota Finds Net Metering Undervalues Rooftop Solar (Mar. 24, 2014), available at http://spectrum.ieee.org/energywise/green-tech/solar/minnesota-finds-net-metering-undervalues-rooftop-solar; Public Service Department, Evaluation of Net Metering in Vermont Conducted Pursuant to Act 125 of 2012, available at http://www.leg.state.vt.us/reports/2013ExternalReports/285580.pdf (including GHG value).

[26] NVE response to discovery request no. VS 1-33. Included in Exhibit RG-3.

the same amount of distributed solar will likely have higher capacity values due to the geographic diversity. In sum, DSG has a capacity value that will help NVE avoid future investments in generation and transmission.

Q. NVE also indicates that it "must plan on any given day or hour to meet all or none of that [NEM] customer's requirements."[27] Do you agree?

A. No. NVE doesn't plan to meet the requirements of individual customers, but rather groups of customers, and usually large groups. As discussed above regarding the necessity of NVE "standing by" to serve the maximum load of every customer, NVE plans to meet the diversified load of its customers—not the maximum load of every customer in each hour. This is no different than the diversity of the NEM loads, net of customer generation, it must plan to serve, i.e. the delivered load.

Q. What do you recommend?

A. I recommend that the delivered load shape be used to assign transmission related costs in the marginal cost study.

Q. Please explain your concern with NVE's distribution load curves.

A. NVE also uses an adjusted delivered load shape for NEM customers to assign distribution costs to the proposed NEM rate classes in the MCS study. NVE uses a novel approach in its development of the load shape for NEM customers for these purposes: Rather than simply using the delivered load shape, NVE uses the greater of customer load delivered by NVE, *or* excess generation (i.e. exports).[28]

[27] NPC Narrative at 22 (Vol. 2, p. 24 of 187).
[28] *See id.* at 21 (Vol. 2, p. 23 of 187).

Q. What is NVE's rationale for using an adjusted load shape?

A. NVE suggests that energy exported from a NEM system places a burden on the distribution system.

Q. Do you agree with this rationale?

A. No. NVE's approach is inappropriate. Exports from a NEM customer serve to reduce the loading on the distribution circuit, distribution system and transmission system, and reduce generation needed to serve that distribution circuit. There is no added cost at current or anticipated penetration levels, as NVE has explained itself.[29] When excess generation is exported off-site, it is not somehow captured by NVE and put in a "bank." Rather, it flows immediately into a neighboring load, like a home or business, passing through that load's utility meter along the way. The customer receiving the locally generated power does not know the source. The recipient will pay full retail rates for that power, as if NVE had generated it remotely and delivered it over its transmission and distribution networks. Thus, NVE receives full retail value for the power it did not generate. This description was confirmed by NVE witness Bohrman.[30]

Q. What do you recommend?

A. As described above, there is no additional cost on the distribution system related to exports, and NVE's NEM load shape approach is inappropriate. I recommend that the delivered load shape be used for the assignment of distribution-related costs in the marginal cost study.

[29] *See* NPC Narrative at 73-74 (Vol. 2, p. of 75-75 of 187).
[30] Deposition of NVE witness Bohrman, page 56, line 22 through page 57, line 17; and page 67, line 8 through line 20. Portions of deposition transcripts referenced herein are included as Exhibit RG-4.

2. Over Allocation of Customer Costs to NEM Classes

Q. How did NVE address customer costs in the MCS?

A. NVE quantified the marginal costs associated with customer meters, customer accounting, and customer service costs.[31] Marginal meter costs were developed though the meter cost analysis, and marginal customer accounting and customer service costs were developed by revising the Customer Weighting Factor Study ("CWFS") approved in the last general rate case.[32]

Q. Do you support the customer costs developed by NVE?

A. No. I believe that NVE's revision to the CWFS resulted in an over allocation of costs to the proposed NEM classes.

Q. Please describe how NVE revised the CWFS.

A. NVE began with the CWFS filed in support of the last general rate case for each utility.[33] For Nevada Power, the CWFS was based on the test period ending December 31, 2013; and for Sierra Pacific, the CWFS was based on the test period ending December 31, 2012. NVE updated the existing studies by conducting a survey of the relevant departments.[34] Department heads were asked to consider each relevant FERC account associated with their department and to determine a percentage allocation of the recorded expenses to NEM customers.[35]

Q. Do you have any concerns with how the CWFS revision was completed?

A. Yes. I believe the CWFS revision was conducted in such a way that would make it prone to inaccurate results. To begin with, the department heads were tasked with a

[31] NPC Narrative at 27 (Vol. 2, p. 29 of 187).
[32] *Id.*
[33] *See, e.g.*, NPC Narrative at 62 (Vol. 2, p. 64 of 187).
[34] *See id.* at 61-62.
[35] Schaar deposition, p. 35, lines 20-25. *See* Exhibit RG-4.

retroactive assignment of recorded costs to a subset of customers. There was no formal structure for the survey[36] and it appears that each department head was given significant liberty with which to assess his/her department.[37] It also appears that there was insufficient vetting of department head responses. For example, witness Schaar's portion of the Narrative discusses "solutions presently being implemented" in the Customer Programs and Services Department that formed the basis of the NEM allocation for that department,[38] but does not have any knowledge of what those solutions entail.[39]

In addition, the temporal basis for the CWFS update is inconsistent. Department heads have been asked to update proportional expenses that are two to three years old, but it appears, at least in some cases, that the department heads relied on more recent information. For example, the customer service representative expenses used in the revised CWFS are from the 12 months ending in June 2015.[40] This implies that some of the inputs to the CWFS revision were from as early as 2012 (in the case of Sierra Pacific), while and others were as late as June 2015.

Q. Have you reviewed the results of the CWFS revision?

A. Yes.

Q. What did you find in your review?

A. The results of the CWFS revision are troubling and in my opinion, indicative of the lack of appropriate rigor in the process through which they were developed. Table 4

[36] The original survey was conducted via email with follow-up conversations between witness Schaar and the department heads. *See* NVE response to discovery request no, VS 2-27. Included as Exhibit RG-3.
[37] For example see Schaar deposition p. 37 lines 8-15 (Exhibit RG-4).
[38] NPC Narrative at 64 (Vol. 2, p. 66 of 187)
[39] Schaar deposition p. 27, line 14. Included in Exhibit RG-4.
[40] Schaar deposition p. 15, lines 3-6. Included in Exhibit RG-4.

below shows the results of the CWFS revision for two proposed classes. The numbers presented in the table are the relative allocators for NEM customers compared to non-NEM residential customers who are given an allocator of 1.00 in the revised CWFS.

Table 4: CWFS Revision Results[41]

Customer Type	NPC	SPPC
Residential - NEM	1.54	4.75
Small General Service - NEM	3.48	5.77

As shown in Table 4, there is a significant difference between the results for the two operating companies. Assuming the cost to serve a non-NEM residential customer for a certain action is $100 in both territories, the results suggest that the costs to serve a NEM customer for the same function would be $154 in Nevada Power's territory and more than 3 times higher, $475, in Sierra Pacific's territory. It is difficult to understand how the costs could vary so widely between the two utilities.

Q. Did you make note of any other results of the revised CWFS?

A. Yes. I found the ratio of costs per customer for NEM customers, as compared to non-NEM customers, surprising in a number of departments.

[41] NPC and SPPC Narrative, Tables 6-1 and 6-2 at 65 and 62, respectively (Vol. 2, p. 67 of 187 (NPC), p. 64 of 175 (SPPC)).

Table and Table below contain data for select departments for residential and general service customers, which I extracted from NVE's CWFS work papers.

Table 5: Proportion of Per-Customer Costs for NEM customers Relative to Non-NEM Customers – Residential[42]

Department Number	Description	Nevada Power	Sierra Pacific
D425	VP Customer Relationship	152%	229%
D440	Credit & Billing - Manager	510%	391%
D441/D442	Billing	719%	1461%
D449	Advanced MDM Operations	118%	115%
D451/D452	Electric Meter Ops	6772%	10310%
D455	Customer Information Systems	118%	120%
D460	Customer Programs & Services	238%	310%
D831	CIS Applications	118%	120%

Table 6: Proportion of Per-Customer Costs for NEM customers Relative to Non-NEM Customers – General Service[43]

Department Number	Description	Nevada Power	Sierra Pacific
D425	VP Customer Relationship	453%	1759%
D440	Credit & Billing - Manager	50%	402%
D441/D442	Billing	327%	1191%
D449	Advanced MDM Operations	118%	115%
D451/D452	Electric Meter Ops	100%	100%
D455	Customer Information Systems	118%	82%
D460	Customer Programs & Services	2786%	149%
D831	CIS Applications	118%	82%

Q. What did you find surprising about these results?

A. While I believe that it is reasonable that the costs per customer of NEM customers compared to non-NEM customers may vary in some cases, there are issues of magnitude and inconsistency present in Table 5 and 6. For example, comparison of the per-customer costs for Departments D451/D452 – Electric Meter Ops—show that NEM customer costs are 6,772% of those allocated to non-NEM customers in Nevada

[42] Derived from data provided in response to discovery request no. VS 1-02, Attachment Table 6-1_2014_NPC_Electric_CWF_Study.xlsx.
[43] Derived from data provided in response to discovery request no. VS 1-02, Attachment Table 6-2_2013_SPPC_Electric_CWF_Study.xlsx.

Power's territory and 10,310% of the costs allocated to non-NEM customers in Sierra Pacific's territory.

Q. How has NVE indicated why the costs associated with this department are so much higher for NEM customers than non-NEM customers?

A. In discovery, NVE has described a number of differences between the operations required for NEM customers and non-NEM customers.[44] For the most part, the operations described are similar for residential and small commercial NEM customers; however, as shown in Table 5 and Table 6, NVE allocates the same per customer cost to NEM and non-NEM small commercial customers and it is only the NEM residential customers that are allocated much higher costs (on the order of 7,000%-10,000% of the cost allocated to non-NEM residential customers). NVE's discovery response explains the differential treatment of residential and small commercial NEM customers as follows: "It should be noted that since there are relatively few incentivized small general service net metered customers, the cost per customer on a going-forward basis has been allocated the same as standard small general service customers."[45]

Assuming that the incentives referred to in NVE's response are related to participation in the SolarGenerations incentive program,[46] NVE's proposed allocation is unreasonable. If approved, NVE's proposed NEM 2 rates would only apply to NEM 2 customers and would not take effect until 2016 at the earliest. SolarGenerations incentives are capped at $255,270,000 under NRS

[44] NVE response to discovery request nos. VS 4-05, 4-06. Included as Exhibit RG-3.
[45] NVE response to discovery request no. VS 4-06. Included as Exhibit RG-3.
[46] This discovery response was received on October 26, 2015. Vote Solar intends to ask additional discovery on this topic prior to hearings.

701B.005(2)(a), and NVE's most recent RenewableGenerations Systems Incentive Program Annual Plan indicates that 76% of these incentives were already issued by the end of 2014.[47] This leaves only $58.7 million in incentives going forward and with the accelerated solar adoption in 2015, it is likely that these incentives will run out in the near term.

As a result, the more reasonable allocation for residential NEM customers should be the same allocation used for small commercial NEM customers, *i.e* the same per customer cost for NEM and non-NEM customers.

Q. Are there any other figures in in Table 5 and Table 6 that you would like to address?

A. Yes. I would also like to discuss the results for Departments D441/D442 and Department D460.

Q. Please discuss what you have found regarding Departments D441/D442.

A. Departments D441/D442 record expenses related to billing, which includes expenses for customer service representatives ("CSRs").[48] There are currently three full-time equivalent ("FTE") CSRs assigned to NEM customers for Nevada Power, and 1.5 FTE CSRs assigned to NEM customers for Sierra Pacific.[49] While this is not a large number of employees, the NEM-dedicated CSRs represent a disproportionate number of employees when compared to the non-NEM CSRs. This is summarized in 7 and Table 8 below.

[47] *See* NVE RenewableGenerations System Incentive Program Annual Plan, Program Period: July 1, 2015-June 30, 2016, Table 4 at p. 20, submitted January 30, 2015, in PUCN Docket No. 15-01052.
[48] NVE's response to discovery request no. VS 4-01.
[49] NPC Narrative at 62 (Vol. 2, p. 64 of 187).

Table 7: Customer Service Representatives – Nevada Power[50]

	NEM	Non-NEM
Total Customers	5,518	853,484
FTE CSRs	3	10
Customers per CSR	1,839	85,348

Table 8: Customer Service Representatives – Sierra Pacific[51]

	NEM	Non-NEM
Total Customers	1,294	332,115
FTE CSRs	1.5	7
Customers per CSR	863	47,445

As shown in Table , NVE's non-NEM CSRs serve 46-55 times the number of customers served by the NEM CSRs.

Q. Please discuss what you have found regarding Department D460.

A. Department D460 records expenses related to customer complaints. According to NVE, NEM issues have accounted for nearly 12% of the total complaints statewide.[52] NVE has reported that "there are solutions presently being implemented that are expected to significantly reduce these complaints."[53] As a result, NVE has proposed a revision to the recorded CWFS expenses from 2012 and 2013 that allocates 1.5% of total Nevada Power expenses to residential NEM customers and 0.25% of total Nevada Power expenses to small commercial NEM customers.[54] For Sierra Pacific the proposed allocations for residential and small commercial customers are 1.0% and 0.10%, respectively.[55] While this is a large reduction in the percent of expenses allocated to NEM customers, as shown in Tables 5 and 6, the per-customer cost for NEM customers is as much as 2,786%

[50] *Id.*; NVE's response to discovery request no. VS 4-03.
[51] NPC Narrative at 62 (Vol. 2, p. 64 of 187); NVE's response to discovery request no. VS 4-03.
[52] NPC Narrative at 64 (Vol. 2, p. 66 of 187).
[53] *Id.*
[54] *Id.*
[55] *Id.*

of the per customer costs for non-NEM customers (in the case of NPC small commercial customers). In discovery, NVE did not provide data to support the estimated allocation going forward, noting instead that "the department head anticipated that, based on trends identified at the time of the filing, expenses would be lower going forward as solutions were implemented to minimize the recurrence of common complaints."[56]

Q. Have you examined the customer cost allocations in other departments in Table 5 and 6?

A. While I have sought to gain a deeper understanding of what is driving the surprising results for all departments shown in Tables 5 and 6, due to the accelerated procedural schedule, I have been unable to fully examine this issue at this time. Based on my initial review of discovery provided by NVE on October 26, 2015, it appears that the utility lacks sufficient evidence to explain the differences in NEM and non-NEM customer costs in the other departments shown in Table 5 and Table 6 as well. I plan to investigate this issue further prior to hearings.

Q. How should the revised CWFS be considered in the MCS?

A. In light of the concerns with the update discussed above, including a lack of supporting data, I recommend that the revised CWFS be excluded from NVE's MCS. For purposes of the MCS, the customer cost allocation factor for residential NEM customers should be set to 1.00, and for small commercial customers the customer cost allocation factor should be set to 1.07 for Nevada Power and 1.04 for Sierra Pacific, which would be commensurate with the NVE allocation factor for the non-NEM small commercial classes.

[56] NVE response to discovery request no. VS 4-7. Included in Exhibit RG-3.

Q. Do you have any other recommendations related to the CWFS?

A. Yes, going forward, NVE should be instructed to record costs separately for NEM customers as they are incurred and with detailed support rather than estimate the separation after the fact. In each utility's next general rate case, NVE should provide a new CWFS that reflects this separation. In addition, it would be helpful for parties to understand the amount of customer service costs associated with other new programs like electric vehicle rates, demand-side management, and so forth. A full accounting of the drivers for each cost would be helpful in determining the appropriate incremental portion to assign to NEM2 customers, if any. In the event that the new CWFS shows significant differences in the per customer cost of NEM customers and non-NEM customers, NVE should be required to provide evidence explaining the reasonableness of the differences and to indicate whether the differences would be expected to change as penetration increases.

3. Double Counting of Excess NEM Generation

Q. Please explain the issue of double counting excess NEM generation.

A. NVE has essentially proposed to receive payment for exports from a net metered customer's premises from two different sources—first, by the customer near the customer-generator, who actually receives the power and pays NVE for it. The second source of payment comes from NVE calculating a value for exports and charging the total amount to all customer classes. This second source of revenue, i.e. from all customer classes, is described in the Narrative:

> Revenue Associated with the Value of NEM kWh Banking: While rates are designed on the energy delivered to the new NEM2 classes, because customers are able to offset their billed usage with any banked kWh credits they have accumulated, there is a difference in the revenue in which rates are designed for

and the revenues that are collected from these classes. *Therefore, the difference between the revenues used for rate design and those that are to be recovered from NEM customers, because of the banking mechanism, is debited back to the total revenue requirement and recovered from all customer classes through an allocation of generation and energy costs relative to the rates that the customers pay for their energy deliveries.* At Nevada Power, $1.13 million in total is allocated to all classes through this mechanism, of which 96 percent of this amount is related to the revenue difference associated with the RS-NEM class. The recovery of these costs through the generation and energy components is appropriate as these banked kWh credits were used to offset system generation and energy costs that would otherwise be incurred by all customers.[57]

Table 9 summarizes these amounts for each rate class for each company

Table 9: Banking Value Recovered from All Customers[58]

NPC	Banking Value	SPPC	Banking Value
RS NEM	$1,083,799	D-1 NEM	$203,513
RM NEM	11,288	DM-1	---
LRS NEM	2,741	GS-1	73,491
GS NEM	32,591		
Total	$1,130,418	Total	$277,004

To be clear, NVE is spreading these banking "costs" to all customers, as well as collecting them from the neighboring homes and businesses to NEM customers, who purchase the exported energy. This is improper and must be rejected.

VIII. Other Technical Problems with the Company's Analysis

Q. In addition to the issues you have addressed above, do you have other areas of concern with NVE's MCS analysis underlying its rate proposals?

A. Yes. There are inconsistencies in the data used by NVE.

Q. Please describe the concerns you have about the data used in the MCS.

A. My concerns with the data used in the MCS falls into two categories: load data and cost data.

[57] NPC Narrative at 45 (Vol. 2 p. 47 of 187) (emphasis added).
[58] NPC Statement O Workpapers (Vol. 2 page 187 of 187).

Q. Please describe the load data inconsistencies.

A. In developing the customer load shapes used to allocate marginal costs, NVE gathered load data from existing NEM 1 customers for the 12-month period ending in May 2015. In order to assess the relative marginal costs of the proposed separate NEM classes, NVE subtracted this NEM 1 load data from the load shapes for the existing residential and small commercial classes. This is a reasonable methodology. However, NVE did not use a consistent vintage of load data for the existing residential and small commercial classes. In the NPC analysis, NVE used existing residential and small commercial load data from the 12-month period ending in May 2014; for SPPC, NVE used existing residential and small commercial load from the 12-month period ending March 2015.[59]

Q. Why is this inconsistency of concern?

A. NVE used the MCS results to develop its NEM 2 rate proposal. In deriving these rates, the MCS relies on a marginal cost allocation that is based on the relative cost causation metrics for each customer class, including number of customers and class load shape. Once established, the relative magnitude of the marginal costs for each customer class is used to allocate the embedded revenue requirement, which ultimately forms the basis of the rates proposed. Because the ultimate rates rely on the relative marginal costs for each customer class, it is essential that the load data from each class be consistent in order to produce an accurate result.

Q. What kind of inaccuracies can result from using inconsistent load data?

A. Use of inconsistent load data can result in misallocation of marginal costs among customer classes and may result in proposed rates that are either too high or too low.

[59] Narratives at p. 24 (Vol. 2., p. 26 of 187 for NPC; p. 26 of 175 for SPPC).

Q. Do you know how the inconsistent load data has affected the proposed rates in this case?

A. No. NVE has not developed load shapes for NEM customers that are consistent with the other customer load shapes used.[60] However, because NVE's methodology involved subtracting the NEM customer load shape from the existing customer load shape, to the extent that NEM customer characteristics changed between the two load shape vintages, the resulting non-NEM residential and small commercial load shapes used in the marginal cost analysis would be inaccurate.

Q. Can you provide an example of how this inaccuracy would occur?

A. Yes, if the NEM loads grew in the intervening period between the last rate case and the development of the current MCS and ERR, then the new NEM classes would receive a larger share of the total costs, and the non-NEM classes, particularly those without NEM customers and load being extracted would be assigned a smaller share of costs. This is of special concern with the NPC study as the load shape vintages differed by an entire year.

NVE data show that considerable NEM adoption occurred in NPC's service territory in the 12 months between the two load studies, June 2014 and May 2015. Net metering in NPC's service territory has been growing at an increasing pace. The table below summarizes NPC annual NEM residential growth over the last few years.

[60] NVE's response to discovery request nos. VS 4-9a and 4-10a.

Table 10: NPC Residential NEM Customer and Capacity Growth[61]

Year	Customer increase over prior year	Capacity increase over prior year
2013	61%	109%
2014	198%	205%
2015	295%	288%

As shown in the above table, there has been increasingly strong NEM growth over the relevant time period. This means that the non-NEM customer load shapes for residential and small commercial customers are inaccurate, as they are net of NEM customers that did not exist in the original load shapes.

Because the SPPC study vintages differed by only two months, this is less of a concern for SPPC.

Q. Could this load data inconsistency result in any unintended consequences?

A. Yes. If NVE's tariffs are approved and implemented in advance of the next rate case, then both NPC and SPPC may over collect their revenue. This would occur because the current rates are fully collecting the respective costs of service for the two operating companies, so additional customers in the NEM classes would add revenue without adding cost.

Q. But don't utilities add new customers all the time?

A. Yes, but in this case, the utility is not adding a new customer. It would be simply increasing the rates (under the NVE proposed tariffs) on existing customers with no increase in costs. To avoid such a potential windfall, NVE should have proposed to

[61] The data in the table come from NVE's response to discovery request no. TASC 8. Note that data for 2015 is through Sept. 23, 2015.

use the incremental revenue it receives to decrease the rates of all customers in the interim.

Q. Turning to the second category of data concerns, please describe the cost data inconsistencies.

A. The marginal costs underlying the MCS for the operating companies are derived from each utility's last general rate case. The last Nevada Power Rate case was filed in May 2014 and the last Sierra Pacific Power Company rate case was filed in June 2013.[62] The production cost modeling underlying these rate cases was completed in April 2014 and June 2013 for NPC and SPPC, respectively.[63] In preparation for the filing in the current NEM case, NVE updated the production cost modeling in both MCSs with an analysis completed in May 2015.[64]

Q. Why is this inconsistency of concern?

A. The production cost modeling drives the analysis of LOLP, POP, and hourly marginal energy costs, which form the basis of marginal cost allocations. Differences in the LOLP, POP, and hourly marginal energy costs between the April 2014 (NPC) and June 2013 (SPPC) modeling runs and those completed in May 2015 (NPC and SPPC) will result in differing marginal cost curves against which the new NEM class rate shapes are overlaid.

Q. What is the impact of these data issues you have outlined?

A. Because the underlying marginal cost data, the spread of the marginal costs across the hours of the year, and the NEM customer load shape data are all based upon different timeframes, the results of the analysis are likely to be skewed in different directions.

[62] *See* Docket Nos. 14-06009 and 13-06002, respectively.
[63] NVE response to discovery request no. VS 4-11a. Included in Exhibit RG-3.
[64] *Id.*

We do not have sufficient data in this proceeding to say by how much and in what direction.

Q. Can these data issues be reconciled in this proceeding?

A. No, not in this proceeding, as it would require aligning the periods for these sources of data. This is best handled in the next general rate case for each utility. Therefore, I urge the Commission to be especially cautious about establishing new and far-reaching policies based upon these data.

IX. When Partially Corrected, NVE's MCS Shows that NEM Customers Generally Cost Less to Serve than Their Non-NEM Counterparts

Q. You have discussed some of the flaws you found with NVE's MCS. How would you go about correcting these errors?

A. I would modify the study in a few ways to address some of the concerns I discussed above. Specifically, I would change the allocation of transmission and distribution costs by substituting the delivered load shapes for the adjusted shapes used by NVE, revise the CWFS treatment, and exclude the double counting of banking values.

Q. Have you completed an updated MCS that corrects for these flawed assumptions?

A. Yes. I have re-run the NVE MCS with four modifications: (1) using delivered load as the appropriate load curve for distribution demand; (2) using delivered load as the appropriate load curve for transmission demand; (3) using modified customer cost allocations; and (4) excluding NVE's double counting of "banking costs." However, given the data limitations I described in the previous section, I was unable to modify the MCS to rely on temporally-consistent data. As a result, I believe that

my modifications improve the MCS, but my concerns with the underlying data remain.

Q. How do these modifications impact the results?

A. The results of the modified MCS analysis are shown in Table 11 and Table 12 below. As shown in the tables, with appropriate assumptions regarding load curves for NEM customers, modified customer cost allocations, and removal of NVE's double counting of "banking costs," the cost to serve NEM customers is lower than the cost to serve non-NEM customers across all tariffs.

Table 11: Modified Marginal Cost Study Results – Nevada Power[65]

	RS-NEM	RM-NEM	LRS-NEM	GS-NEM
Revenue Allocated to Class ($000)	$8,017	$59	$44	$189
Average Cost per kWh	$0.12832	$0.10966	$0.10844	$0.08981
Comparable Non-NEM Rate	$0.13520	$0.11915	$0.11069	$0.10849
Cost of NEM versus non-NEM	95%	92%	98%	83%

Table 12: Modified Marginal Cost Study Results - Sierra Pacific

	D1-NEM	GS-1 NEM
Revenue Allocated to Class ($000)	$1,010	$399
Average Cost per kWh	$0.09734	$0.08338
Comparable Non-NEM Rate	$0.11811	$0.10919
Cost of NEM versus non-NEM	82%	76%

Q. What are the implications of these results?

A. As shown in the tables above, the corrected MCS shows that the cost to serve residential NEM customers is 2-18% less than the cost to serve non-NEM residential customers and the cost to serve small commercial NEM customers is 17-24% less than the cost to serve non-NEM small commercial customers. These results indicate

[65] In addition to the changes described above, the results shown in the table include my proposal to remove the generation meter requirement. This issue is discussed in detail later in the testimony.

that NEM customers in NVE's territory do not shift costs to non-NEM customers. This finding corroborates the E3 study I mentioned above.

Q. What conclusions do you draw from your analysis of the MCS?

A. I conclude that when the MCS analysis is corrected for the changes discussed above, the results indicate that NEM customers cost less to serve than their non-NEM counterparts. As a result, I do not believe NVE's proposal is justified.

X. NVE's Rate Proposal Should be Rejected.

Q. In addition to problems with NVE's MCS development and underlying rationale for the NEM rate proposal, do you have concerns with the rate proposal itself?

A. Yes. I have three primary concerns. First, NVE's proposed NEM tariffs do not reflect marginal costs, as required by SB 374. Second, NVE's proposed NEM tariffs include a demand charge, which provides a poor pricing signal and is detrimental to the market for distributed solar resources. Finally, NVE would require each NEM 2 customer to have a generation meter, and bear an associated charge, that provides no benefit to the customer.

1. NVE's Proposal Does Not Adequately Reflect the Marginal Cost of Serving Net Metering Customers.

Q. What does SB 374 require in terms of rate development?

A. As I discussed earlier in my testimony, SB 374 requires that the charges in the tariff reflect the marginal costs of serving net metering customers. Specifically, Section 4.5(3) states that the charges included in rates the utility must charge for providing electric service to customer-generators must "reflect the marginal costs incurred by the utility to provide service to customer-generators."

Q. In your opinion, do NVE's proposed rates meet this requirement?

A. No, they do not. NVE's demand, energy, and customer rates in its proposed tariffs do not reflect marginal costs, but rather reflect the utilities' embedded revenue requirement.

Q. How did you reach this conclusion?

A. I reached this conclusion based on the way NVE uses the results of the MCS. In its Narratives, NVE notes: "The marginal costs are identified by the four functions -- distribution, transmission, generation capacity and energy -- and are ultimately reconciled to the embedded functional revenue requirements."[66] This means NVE prorates the MCS study results *to* the ERR, and the MCS serves only to allocate the costs that are reflected in the ERR. Thus, it is the ERR, not marginal costs, that is reflected in NVE's proposed rates.

Q. In addition to this statement in the Narratives, what other information did you rely on to draw this conclusion?

A. This can be seen in the utilities' Statement O, which is included in Technical Appendix 2 of the Applications.[67]

In addition, NVE witness Mr. Bohrman confirmed that the rates are designed to recover the embedded revenue requirement, and that the marginal cost of service is used to allocate cost responsibility between the classes.[68]

[66] Narratives at 13 (Vol. 2).
[67] NPC Statement O, p. 5 of 15 (Vol. 2, page 166 of 187); SPPC Statement O, p. 1 of 8 (Vol. 2, page 158 of 175).
[68] Bohrman deposition, pp 64:19-65:7 (Oct. 1, 2015). *See* Exhibit RG-4.

Q. Can you provide an example of how Statement O shows that NVE's proposed rates do not adequately reflect the marginal costs of serving customer-generators?

A. Yes. Page 5 of 15 of NPC's Statement O (p. 166 of 187, Vol. 2) provides NPC's reconciliation of marginal cost to the revenue requirement. On this page, the total marginal cost for distribution services is about $543 million (Column C), whereas the cost-based class revenue (Column F) is only about $387 million. The distribution reconciliation factor (Column F, line 40) is identified as 71.2%, meaning that embedded costs are about 30% less than marginal costs. The result is that NVE's proposed rates for NEM 2 customers are designed to recover the ERR of $382 million, not the marginal costs of $543 million.

Lines 8 through 34 on this same page of Statement O show the allocation of these distribution costs to all customer classes of NPC, including the four new proposed NEM rate classes. For example, the total distribution marginal cost for NPC's RS-NEM class (Column C, line 32) is $3.52 million, while the cost based class revenue (or ERR) for this proposed class (Column F, line 32) is $2.484 million. These figures carry through to the development of rates for the new NEM classes. The rates calculation workpapers for Statement O (p. 179 of 187, Vol. 2 for NPC) show the $3.52 million in total marginal distribution services cost for NPC's RS-NEM class (Column D, line 16) and the $2.484 million reconciled embedded revenue requirement amount (Column F, line 16). It is the latter ERR figure —$2.484 million—that is used to develop the actual rates for the RS-NEM class, and not the marginal cost.

Exhibit RG-5 provides a comparison of the marginal costs and rates (MCS) with the ERR as filed for NPC and SPPC. With the exception of marginal transmission costs that are slightly lower than embedded costs, marginal costs for all functions are high, and the overall marginal cost rate per kWh is significantly higher than the embedded cost rate per kWh.

Q. Why does NVE reconcile its marginal cost results with its ERR?

A. The ERR is the basis for determining the appropriate level of revenue needed by the utility to recover its expenses and earn a reasonable return. Less revenue would result in under-earning by the utility, and more revenue would result in over-earning by the utility. Because marginal costs are generally higher than embedded costs,[69] basing rates solely on marginal costs will result in over-earning by the utilities. Therefore, NVE "reconciles" the MCS with ERR, or, in other words, NVE prorates the MCS down to the ERR to assure appropriate revenue recovery.

In discovery, NVE witness Faruqui explained further:

> The Company's marginal cost of service study develops the cost for adding the next unit of service to the system, including the cost of adding an additional customer, an additional kW of capacity, or an additional kWh of energy.[70]

Because the cost of the next unit of service to the system often exceeds, and is certainly different than, the current average cost of service, NVE cannot base its proposed charges for its NEM tariffs on marginal costs and recover the proper cost of service.

[69] With the exception of transmission costs, but this is a relatively small part of the overall rate. *See* Exhibit RG-5.
[70] NVE response to discovery request no. TASC 81. Included in Exhibit RG-3.

Q. Is NVE's reconciliation reasonable?

A. With the limited time available to review and analyze NVE's MCS and ERR, it is a reasonable approach for the purpose of assuring that the rates in effect do not allow the utility to overearn. To be clear, however, the rates developed are not reflective of marginal costs and therefore do not comply with SB 374.

Q. Are marginal costs important?

A. Yes. Marginal costs can be used to develop price signals, as suggested by the language in SB 374. In the words of NVE witness Faruqui:[71]

> Prices send signals to customers about what actions to take and to the utility about what investments to make. If these price signals are cost reflective, then optimal decisions will be made that raise economic efficiency and enhance customer well-being, making society better off. Marginal cost of service studies establish a measure of long-run marginal costs for various aspects of utility costs.

Q. Do you consider NVE's failure to reflect marginal costs in its NEM tariffs to be problematic?

A. Yes, in two ways. First, I don't believe NVE's approach complies with SB 374, as discussed above. Second, using embedded costs as the basis for rates does not send appropriate price signals. The importance of cost-reflective prices is explained by Dr. Faruqui:[72]

> Economic efficiency and equity relate directly to the notion of cost causation. Economic efficiency is achieved by having cost-reflective prices. This ensures that products are only consumed by those customers who value them at more than they cost to produce. Pricing below cost is wasteful because customers will purchase and consume products that they would not choose to consume if faced with paying full cost. Similarly, pricing above cost is wasteful because customers, who would get a net benefit from consuming the product over its cost of production, lose out on that enjoyment.

[71] Direct Testimony of NVE witness Faruqui, page 15, lines 4-9.
[72] *Id.* at pp. 7-8.

Q. How can NVE's rates meet the marginal cost tariff requirement of SB 374?

A. It is not possible to use rates reflective of marginal costs in every hour when the overall marginal costs are higher than the ERR as they are in this case. The resulting revenues would exceed the ERR cap for revenue recovery. However, marginal costs can be used as the primary price signal for time periods of higher cost, if balanced by lower prices during periods of lower cost.

A good example of this approach is TOU rates in which pricing for the peak periods reflects marginal costs. To assure revenues do not exceed the ERR, the rates for off-peak periods can be set at a level that generate revenues that, together with the on-peak revenue, total the ERR.

Q. Does the alternative NEM tariff proposal you propose reflect marginal costs in the manner you describe?

A. Yes, it does. I describe the approach in the next section of my testimony.

2. <u>NVE's Proposed Demand Charges Would Constitute an Unavoidable Fixed Charge on NEM Customers</u>.

Q. Q. Please describe the demand charges proposed by NVE.

A. NVE is proposing to recover essentially all non-energy-related costs through a demand charge in each of its proposed tariffs. The charge is based on the 15-minute period of maximum use of utility-supplied energy, also known as the peak demand, of each customer at any time of day or night throughout the billing period. To offset the revenue recovered by this new charge, the rate for energy consumption (and credit for exports) has been reduced.

Q. Are you aware of examples of other utilities that have imposed demand charges on residential customers?

A. Only one to my knowledge.

Q. What happened in that example?

A. The results were disastrous. Salt River Project ("SRP") in Arizona provides electricity service to a large portion of the Phoenix area and is effectively unregulated. Early this year, it initiated a required demand charge for new residential solar customers in its territory. SRP estimated that it would increase revenue recovery from, and costs to, residential rooftop solar owners by about $50 per month. As a result, applications for SRP's solar program fell from 300 per month under the previous tariff to less than 15 per month under the new rate design—a 95% drop.[73]

Q. Have you determined the typical impacts for NEM 2 customers under NVE's proposals, including its proposed demand charge?

A. Yes. Changing the rate structure for new net metering customers of NPC and SPPC has similar effects to that of SRP's demand charge. The impact of the proposed rate changes on a typical NEM 2 customer under each proposed flat rate is shown in Table 13. The main driver of the bill increase from NEM 1 to NEM 2 is the demand charge.

[73] See, for example, http://blog.rmi.org/blog_2015_09_14_how_demand_flexibility_can_help_rooftop_solar_beat_demand_charges_in_arizona.

Table 13: Impact of Proposed Rate on Typical NEM 2 Customer[74]

Typical Monthly Bill		Total Bill NEM1	Total Bill NEM2	Bill Change NEM1 to NEM2	Change %
NPC	RS	$89.85	$129.87	$40.02	45%
	RM	$50.22	$66.88	$16.66	33%
	LRS	$465.31	$476.86	$11.55	2%
	GS	$159.53	$242.28	$82.75	52%
SPPC	D-1	$61.21	$85.20	$24.00	39%
	GS-1	$182.18	$242.26	$60.08	33%

Because the bill impacts are roughly the same order of magnitude as the impacts for SRP, I would not be surprised to see similar effects on the market for distributed solar resources.

Q. What is the purpose of using peak demand charges in residential rates?

A. There is a benefit for NVE as the demand charge acts like a fixed charge in that small customers have little ability to manage their peak demands. This is because DSG reduces the customer's consumption of grid-supplied energy, but has little effect on the peak demand of an individual customer.

Q. Please explain why DSG has little effect on an individual customers' peak demand.

A. This is due in part to the intermittent nature of solar generation. With peak demand charges based on a 15 minute interval, the shading provided by afternoon clouds we often get in the Southwest is sufficient to reduce solar generation long enough for the customer to set a peak. And it only has to happen once in a 30-day time period. The following Table 14 summarizes NVE's estimates of peak demand reduction due to on-site solar generation.

[74] The data underlying this table comes from NVE's response to discovery request no. VS 1-36 (Attachments).

Table 14. Impact of Solar on Customer Peak Demand[75]

Customer Class	Average Reduction to Customer's Peak Demand
NPC: RS	4.8%
NPC: RM	2.2%
NPC: LRS	7.1%
NPC: GS	9.4%
SPPC: D-1	13.0%
SPPC: GS-1	17.7%

Q. What does NVE say about the impact of DSG on an individual customers' peak demand?

A. NVE suggests that re-orienting PV systems will achieve demand charge reductions:

> The proposed three-part rate design for the NEM 2 tariff will incentivize solar customers to size and orient their systems to coincide with their peak demand usage to the greatest extent possible. In most cases, a south or southwest orientation clear of shading will best accomplish this. The demand charge provides a clear pricing signal to the DG customer considering orientation that the volumetric energy charge in the NEM 1 tariff does not send.[76]

NVE's recommendation that most customers will benefit by orienting their systems to the south or southwest is unfounded. Orienting systems to the west of south will certainly reduce the overall generation, and is unlikely to provide any demand charge reductions.

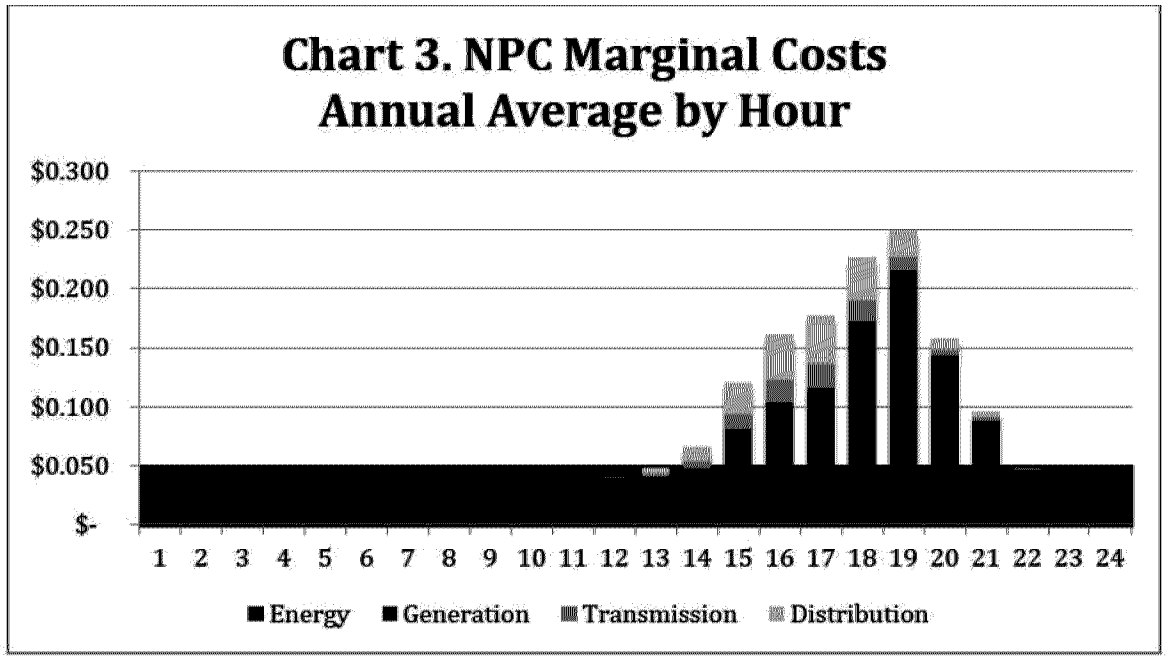
Q. Do you agree with NVE that the "demand charge provides a clear pricing signal to the DG customer considering orientation that the volumetric energy charge in the NEM1 tariff does not send?"[77]

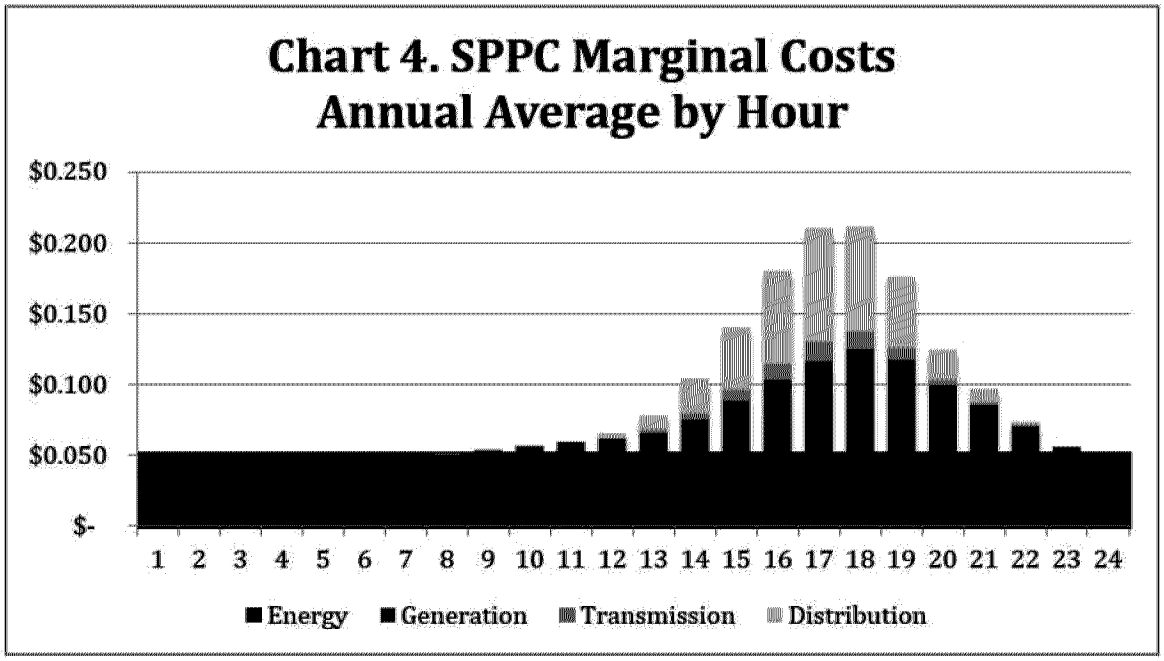
A. No. Rather than providing a clear price signal to the DG customer considering orientation, as NVE alleges, the proposed demand charge would constitute an

[75] The data underlying this table come from NVE's response to discovery request no. VS 1-36 (Attachments).
[76] NVE's response to discovery request no. VS 1-30(b). Included in Exhibit RG-3.
[77] *Id.*

unavoidable fixed charge on NEM customers. Small customers are highly unlikely to know when their peak demands occur prior to installing their new system. While NVE has noted that the metering to be installed with the system under NEM 2 will provide peak demand information, the customer will not have access to the new data until *after* installing their generating system, and even then—only prospectively. Since the maximum demand can occur in any 15-minute period during the month-long billing period, and its timing can change from month to month and season to season, the customer needs to gain knowledge about her usage patterns—as they may vary from day to day, weekday to weekend, and season to season—prior to installation if she would like to adjust the orientation of her system. The customer will also need to learn about the effects of other activities, such as being home sick from work, working from home, having guests, having a party or poker night, and so forth. Additionally, the customer will need to understand the complex balance between cost savings due to reduction in consumption of grid-supplied energy, and any reduction in demand that *might* be possible.

Finally, it's important to remember that the customer will experience the same demand charges whether that peak usage occurs during high-cost (for NVE) late afternoon hours, or low-cost early morning hours. The following charts stack the NPC and SPPC marginal cost data from Charts 3-9, 3-11, 3-13, and 3-15 in each Company's narratives. Thus, randomly timed demand charges do not send appropriate price signals to encourage customers to move load off peak.





Q. If NEM customers cannot control their demand charges with the help of their rooftop solar systems, regardless of the orientation, what can customers do to mitigate the impact of demand charges?

A. As a practical matter, there are only two ways to reduce peak demands—either

through behavioral changes or through advanced technologies. The former requires customers to fully understand their daily load patterns as described above. Without that knowledge, managing maximum usage (peak demand) is beyond the ability of the customer by changing behaviors appropriately.

The use of more sophisticated technologies, such as timing of certain appliance usage or integrating storage technologies, could have an impact, but here too knowledge of intra-day load patterns is essential.

In describing the billing determinants for the proposed demand charge, NVE explained that:

> [T]he demand billing determinants are based on the highest demand in any 15 minute interval for the billing period or on-peak period, depending on the charge to which it is applicable. To the extent a customer reduces their demand for that entire period measured, the demand billing determinant will reflect that reduction.[78]

While it is a relatively simple matter for a small customer to use, or avoid using, electricity during certain *hours* of the day, it has no way of knowing when the 15 minute interval may occur so that it can reduce its demand *for the entire period.*

Q. Do residential customers have the ability to manage their peak demand?

A. No, not in my opinion with commonly available current technologies. NVE asserts that the following activity demonstrates customers' ability to manage their loads and consumption:[79]

1. Purchasing energy star equipment;
2. Choosing optional time of use rates;
3. Adding distributed generation; and

[78] NVE's response to discovery request no. VS 3-2. Included in Exhibit RG-3.
[79] NVE's response to discovery request no. VS 1-37. Included in Exhibit RG-3.

4. Shifting usage out of higher cost time of use periods.

However, not a single one of these items directly addresses peak load. Each example is an indication that customers can manage consumption, but has nothing to do with managing peak load.

Q. In light of NVE's view that customers can manage their peak demand, is the Company proposing demand charges for all residential customers?

A. No. NVE is not proposing that demand charges be applied to all residential and general service customers – only those that install DSG

Q. Q. What does this suggest?

A. This suggests that NVE is targeting a small group of customers in seven different classes (four in NPC and three in SPPC) for this discriminatory treatment. Over time, there will likely be new technologies that allow customers to manage appliance loads to certain times of day, but of course this would not be unique to DSG customers. What is unique to DSG customers is the output of the DSG system itself, which NVE knows cannot be controlled in a way to manage the customer's peak demand.

Q. Wouldn't battery storage provide NEM customers with an ability to manage demand?

A. Yes, but storage is not unique to customers with DSG. Battery and other forms of storage are already in use by larger customers to mitigate the effects of demand charges. Additionally, storage will add yet another cost to customers trying to manage their load and consumption. To the extent that storage technologies follow a similar cost curve as have PV technologies, and use of storage becomes more ubiquitous over the next few years, there is a risk that NVE will seek changes to rates and rate

structures that will make that new technology less cost-effective for customers.

Q. Do you believe that the proposed demand charge would send a proper price signal to NEM customers?

A. No. A price signal is one for which the customer has an ability to respond. If the customer is unable to respond, particularly using the technology driving the utility's desire for the new charge, then the demand charge simply acts as a fixed charge. 3.

3. <u>NVE Has Not Justified its Proposed Generation Meter Requirement</u>.

Q. Please explain your understanding of NVE's reasons for requiring generation meters.

A. In the Narrative, NVE states "[g]eneration meters will facilitate compliance with SB 374's requirement that Nevada Power assess the effect of DG on its distribution system, accurately measure the cost of service, and could aid in demonstrating compliance with the Clean Power Plan."[80]

Additionally, NVE explained:

> For cost of service development, the proposed generation meter requirement for NEM2 customers is necessary to track and record the actual generation of the NEM2 DG systems, in order to develop the customer's total load hourly profile. This component is necessary to develop the full cost to serve these customers as a separate rate class. Relying on system nameplate capacity to determine DG system generation is at best an estimate and does not provide the necessary interval data.[81]

Q. Do you find NVE's explanations compelling?

A. No. Generation meters are not needed. To develop delivered load shapes, NVE needs to know how much energy it is supplying to the NEM customer, and at what time.

[80] NPC Narrative at 19 (Vol. 2, p. 21 of 187).
[81] NVE's response to discovery request no. Staff 2. Included in Exhibit RG-3.

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 it needs to net exports against future consumption. Of course, a single bi-directional meter would be sufficient.

Finally, 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 customers and the costs should be spread to all.

Therefore, I recommend eliminating the generation meter requirement, and associated cost and rate. This recommendation is reflected in the revised MCS results I present above.

Q. Earlier in your testimony, you described the purpose of SB 374's net metering tariff requirement. Do you think NVE's proposal reflect this purpose and policy?

A. No, NVE's proposals do not meet the criteria provided in Section 2.8 of SB 374.

Q. Why do you say that?

A. NVE's proposals for separate customer classes for NEM 2 customers with rates and charges that include a demand charge add costs to the opportunity to become a customer-generator, making such an investment less economic. This will discourage private investment in renewable energy resources, and reduce the growth of distributed solar energy and related economic growth in Nevada, including a reduction in the number of solar-related jobs in the state, and the diversification of resources.

Q. Would you please summarize your conclusions with respect to NVE's proposed rates?

A. Yes. As I discussed earlier, NVE has not justified its proposal to create a separate class for NEM customers. With respect to the specific rate proposal, NVE's tariff proposals do not meet the purpose and policy of SB 374, do not follow the marginal cost guidelines in SB 374, and include a demand charge component that provides poor pricing signals and is bad for the market.

XI. Vote Solar's Proposed TOU Rate Alternative

Q. In light of your critique of NVE's MCS and proposed NEM 2 rates, what do you recommend?

A. I recommend that NEM 2 customers remain on the interim NEM 2 tariff approved by the Commission. The Company's own data reveal that there is no existing unreasonable cost shift that would warrant a change to existing rates, especially a change as drastic as what NVE proposes. However, I do think this case presents an opportunity to explore alternate rate designs that would meet the requirements of SB 374 and protect new customer-generators against unjust and unreasonable rates and unjust discrimination.

Q. Can the Commission consider alternatives?

A. Yes, as discussed above, the Commission has broad flexibility to approve or disapprove, in whole or in part, NVE's proposed tariff. The Commission may also modifications to the tariff, including modifications to the rate design and the terms and conditions of net metering services to customer-generators. The Commission has

wide latitude within these parameters to implement, or not implement, new NEM 2 tariffs.

Q. What do you recommend in terms of alternate rate designs?

A. I recommend the Commission evaluate a TOU rate alternative through shadow billing.

Q. Why should the Commission study TOU rates?

A. TOU rates provide a somewhat better price signal to customers than a flat price and their simplicity allows customers the ability to respond.

Q. In your opinion, is a TOU rate for NEM customers consistent with SB 374?

A. I believe it is. As I mentioned above, Section 2.5 of the legislation creates an exception to the general bar on mandatory TOU for residential customers for schedules or rates imposed on net metered customers. While I don't suggest that the legislature is indicating a preference for this option, it is now an option than can be considered by the Commission. Additionally, TOU rates can be structured such that peak period pricing reflects the marginal costs of providing service to customer-generators, as SB 374 requires.

Q. Have you developed a TOU tariff option?

A. Yes. I developed a conceptual framework for a TOU tariff based upon the time electricity is consumed, the current TOU periods in NVE's tariffs, and the marginal cost for the on-peak period. I structured the tariff so that the revenue collected achieves the ERR.

Q. Did you develop the TOU rate for all NEM customer classes proposed by NVE?

A. No. The NPC TOU data is relatively straightforward with one summer on-peak period, one summer off-peak period and the remaining winter hours on one rate. Moreover, the NPC has higher proportions of NEM customers than does SPPC. For these reasons, and in light of the accelerated procedural schedule in these consolidated cases, I developed the TOU approach for NPC only at this time. The rate proposals for the NEM 2 customers of NPC are depicted in Table 15 as follows:

Table 15. NPC NEM 2 Tariffs

	RS-NEM	RM-NEM	GS-NEM
Monthly Customer Charge[82]	$15.93	$8.95	$26.14
Summer on-peak	$0.13400	$0.10387	$0.08901
Summer off-peak	$0.11146	$0.09712	$0.08190
All other hours	$0.10575	$0.09222	$0.07754

Q. You noted significant concerns about NVE's data in your testimony. Are you now suggesting these data be used to actually charge NEM customers in separate classes?

A. No. Because of the data problems and the benefits of gathering additional information about the operation of TOU prices that reflect marginal cost, I recommend the Commission implement these alternate TOU rates as "shadow prices." In other words, NEM 2 customers would remain on the interim NEM 2 tariff at least until the next rate case. This would allow NVE to gather information about the effect of this type of marginal cost TOU pricing on the billing parameters of NEM customers

[82] The proposed monthly customer charges reflect the exclusion of the revised CWFS results, as described above. Due to the accelerated procedural schedule, I was unable to review the generation meter analysis, which also underlies the customer charge amount. Therefore, the customer charges shown in the table are subject to change if further review reveals concerns with the meter cost analysis.

before any such rate would go into effect. Additionally, NVE will be able to use consistent time periods for the studies.

XII. Recommendations

Q. What do you recommend the Commission do in this proceeding?

A. Based on the analysis I discuss above, I recommend the Commission reject NVE's tariff proposals and MCS, and maintain the interim tariffs in place until the next rate case. There are simply too many problems with the NVE MCS study for it to be considered reliable enough for the development of rates. In addition, with the simple adjustments I've made to the model, NVE's own data shows that the cost of serving NEM customers is less than the cost of serving non-NEM customers. At the time of the next rate case, NVE will have more information than it does currently on the effect of using marginal prices in the TOU context. It can also use consistent time periods for its rate case, NEM data, and production modeling runs. I would suggest that it also use the intervening time to gather orientation information on its actual NEM 2 customers to be able to refine future NEM proposals.

I also recommend that the Commission implement the alternate TOU rate I developed above, which reflects marginal costs in the on-peak periods, through "shadow billing" so that customers, utilities, the solar industry, and the Commission can see the effect of the rate. This method will avoid any harmful unintended consequences, while continuing to gather information. During the next rate case, there will be experience with the new rate, the data in the proceeding will be internally consistent, and the Commission can make adjustments as it deems appropriate at that time.

Q. Does this conclude your testimony?

A. Yes, it does.

AFFIRMATION

STATE OF COLORADO)
) ss.
COUNTY OF BROOMFIELD)

I, Rick Gilliam, do hereby swear under the penalty of perjury the following:

That I am the person identified in the attached prepared Direct Testimony and that such testimony was prepared by me or under my direct supervision; that the answers and information set forth therein are true and accurate to the best of my personal knowledge and belief; and that if asked questions set forth herein, my answers thereto would, under oath, remain the same.

Rick Gilliam

Subscribed and sworn to before me this 23rd day of October, 2015

Notary Public

My commission expires: 06-05-19

JORDAN GARDENHIRE
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20154022210
MY COMMISSION EXPIRES 06/05/2019

Exhibit RG-1

Statement of Qualifications

James F. "Rick" Gilliam
Program Director, Vote Solar
rick@votesolar.org
303-550-3686

Professional Employment

January 2012 to Present: Program Director, DG Regulatory Policy (formerly Research Director), Vote Solar. Managing the technical and policy research for Vote Solar, and engaging in state, regional, and national campaigns related to distributed solar generation.

March-April 2012: Solar Energy Industries Association - Under a short term and part time contract with SEIA to participate in an Xcel Energy distributed solar generation Technical Review Committee and to manage consulting support also under contract to SEIA.

January 2007 to January 2012: SunEdison, LLC - Various solar policy related positions beginning with Director of Interior West Policy to Managing Director of Western Policy (July 2007), to Vice President of North American Government Affairs (July 2009) to Global Policy Advisor (July 2011). In each of these roles, directed and managed policy research, development and implementation for the company for the various geographies identified at the regulatory and legislative levels.

June 2011 to December 2011: Chair of the Solar Alliance Board.

Dec 1994 to Jan 2007: Senior Energy Policy Advisor, Western Resource Advocates (formerly the Land and Water Fund of the Rockies), Boulder, Colorado. Develop innovative clean energy and air quality public policies within the economic and cultural framework unique to this region. Lead environmental advocate in development of Arizona Environmental Portfolio Standard, Nevada Renewable Portfolio Standard implementation rules, Colorado Renewable Energy Standard legislative proposals, and the 2003 Utah Renewable Energy Standard legislative proposal. Principal author of Colorado's Amendment 37 and lead advocate for related PUC rule development.

Jan 1983 to Dec 1994: Director of Revenue Requirements, Public Service Company of Colorado, Denver, Colorado. Primary responsibility for development of formal rate-related filings for this investor-owned utility for electric, gas, and thermal energy service in two states and the FERC. Developed and responded to a variety of proposed mechanisms to encourage the use of energy efficiency technologies, including innovative rate design approaches.

Dec 1976 to Dec 1982: Technical Witness (Engineer), Federal Energy Regulatory Commission, Washington, D.C. Testified as expert witness on behalf of the FERC in wholesale rate filings on technical, accounting, and economic issues related to rate design, pricing, and other issues.

Education

Masters, Environmental Policy and Management, University of Denver, Denver, Colorado

Bachelor of Science, Electrical Engineering, Rensselaer Polytechnic Institute, Troy, New York

Summary of Formal Testimonies and Rulemaking Participation

Representing Vote Solar

- El Paso Electric Company Case No. 15-00127-UT: General Rate Case
- Public Service Company of CO Docket 13AL-0958E: Qualifying Facilities Rates/Remand
- Public Service Company of CO Docket 14A-0302E: Solar*Connect Subscription Proposal

- We Energies (WI) Docket No. 05-UR-107: General Rate Case
- Rocky Mountain Power (UT) Docket No. 13-035-184: General Rate Case
- Public Service Company of CO Docket 13AL-0958E: Qualifying Facilities (QF) Rates
- Public Service Company of CO Docket 13A-0836E: 2014 RES Compliance Plan
- Public Service Company of CO Docket 13AL-0695E: Line Extension Policy
- Idaho Power Company, Case No. IPC-E-12-27, Net Metering Service
- Arizona Public Service, et al., Docket No. E-01345A-10-0394, et al.: RES Compliance
- New Mexico PRC Case No. 11-00218-UT: Renewable Portfolio Standard Reasonable Cost Threshold
- Tucson Electric Power Docket No. E-01933A-12-0291: General Rate Case
- New Mexico PRC Case No. 15-00127-UT: General Rate Case

Representing Sunedison LLC

- Public Service Co of New Mexico Case No. 10-00037-UT 2010 Procurement Plan
- Public Service Company of CO Docket 09A-772E: 2010 Compliance Plan
- Public Service Company of CO Docket 09AL-299E: 2009 Rate Case Phase 2
- Public Service Company of CO Docket 08A-532E: 2009 Compliance Plan
- Colorado PUC Rulemaking Docket 08R-424E: Renewable Energy Standard Rules
- New Mexico PRC Case No. 08-00084-UT: Reasonable Cost Threshold Rulemaking
- Nevada PUC Docket No. 07-10007: Petition for Declaratory Order re 3rd party ownership
- Public Service Company of CO Docket 07A-447E: 2007 Resource Plan
- Public Service Company of CO Docket 07A-462E: 2008 Compliance Plan
- New Mexico PRC Case No. 07-00157-UT: RPS Rulemaking; diversity standard
- Public Service Company of CO Docket 06A-478E: 2007 Compliance Plan
- Public Service Company of CO Docket 06A-534E: Approval of Alamosa Contract

Representing large commercial customers

- Nevada Power Company Docket No. 02-11037: Electric Tariff Rule related to loss factor associated with metering secondary service at primary level
- Nevada Power Company Docket No. 02-5044: Electric Tariff Rule related to metering

Representing Western Resource Advocates (formerly the Land and Water Fund of the Rockies)

- CO: PSCo Docket 06S-234EG: 2006 Rate Proceeding - Windsource issue
- CO: PSCo Docket 05A-112E: Renewable Energy Standard Rulemaking
- CO: PSCo Docket 05A-288E: Electric Quality of Service Monitoring & Reporting Plan: 2007-08
- CO: PSCo Dockets 06S-016E: Renewable Energy Service Adjustment
- CO: PSCo Consolidated Dockets 04A-214E, 215, 216E: Least-cost Resource Plan
- CO: PSCo Docket No. 04S-164E: Windsource Program & Net Metering in Rate Case Phase 2
- CO: PSCo Docket 02S-315EG: 2002 Rate Proceeding - Windsource issue
- NV: Nevada Power Company Docket No. 01-7016: Demand-side Management Programs
- UT: PacifiCorp Rate Case Docket No. 01-035-10: Demand-side Mgt Cost Recovery
- CO: PSCo Docket No. 00A-008E: IRP - DSM & Wind Resources
- UT: PacifiCorp Rate Case Docket No. 99-035-10: System Benefit Charge Proposal
- AZ: Arizona Restructuring Rulemaking Docket No. 99-205: Renewable Portfolio Standard
- CO: PSCo Docket No. 98A-511E: Air Quality Improvement Rider
- AZ: Arizona Restructuring Rulemaking Docket No. 94-165: Stranded Cost Proceeding
- NV: Nevada Power Company Docket No. 94-7001 (Refiled): Integrated Resource Plan
- NM: Southwestern Public Service Case No. 2678: Merger Proceeding
- CO: PSCo Docket No. 95A-531EG: Merger Proceeding

Representing Public Service Company of Colorado

- PSCo Rate Revenue Requirements Proceeding Docket No. 93S-001EG

- PSCo Demand-side Management & Decoupling Proceeding Docket No. 91A-480EG
- PSCo Incentive Regulation Investigation Docket No. 93I-199EG
- PSCo Rate Proceeding Docket No. 91S-091EG
- PSCo Fort St. Vrain Supplemental Settlement Agreement Docket No. 91A-281E
- Various PSCo FERC rate proceedings, and subsidiary rate proceedings

Representing the Staff of the Federal Energy Regulatory Commission

- Connecticut Light & Power Company, Docket ER 82-301
- Kentucky Utilities Company, Docket ER 81-341
- Philadelphia Electric Company, Docket ER 80-557, et al.
- Minnesota Power & Light Company, Docket ER 80-5
- Boston Edison Company, Docket ER 79-216, et al.
- Connecticut Light & Power Company, Docket ER 78-517
- South Carolina Electric & Gas Company, Docket ER 78-283
- Minnesota Power & Light Company, Docket ER 78-245
- New England Power Company, Docket ER 78-78
- New England Power Company, Docket ER 77-97

Exhibit RG-2

SB 374

Exhibit RG-2

Senate Bill No. 374–Senator Farley

CHAPTER.....

AN ACT relating to energy; revising provisions relating to certain energy conservation standards adopted by the Director of the Office of Energy and the governing body of a local government; providing that certain design professionals are not subject to disciplinary action for complying with certain energy conservation standards; providing that the adoption of certain energy conservation standards by the Director and the governing body of a local government shall not be deemed to prohibit the Director or governing body from approving and implementing certain energy efficiency programs; revising provisions relating to net metering systems; requiring electric utilities in this State to submit to the Public Utilities Commission of Nevada certain proposed tariffs pursuant to which an electric utility is required to offer net metering to certain customers of the electric utility; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

Existing law requires the Director of the Office of Energy and the governing body of a local government to adopt certain standards for the conservation of energy in buildings. (NRS 701.220) **Section 1** of this bill prohibits the Director and a governing body from adopting certain standards mandating requirements for air changes per hour. **Sections 1, 3 and 4** of this bill provide that certain design professionals are not subject to disciplinary action by their respective licensing boards for complying with the energy conservation standards adopted by a governing body pursuant to **section 1**. **Section 1** further provides that the adoption of certain energy conservation standards by the Director and a governing body shall not be deemed to prohibit the Director or governing body from approving and implementing certain energy efficiency programs related to new residential construction.

Existing law requires electric utilities to offer net metering to the customer-generators operating within the service area of the utility until the cumulative capacity of all net metering systems operating in this State is equal to 3 percent of the total peak capacity of all electric utilities in this State. (NRS 704.773) **Section 2.95** of this bill revises the amount of cumulative capacity for which utilities are required to offer net metering in accordance with existing law. **Section 2.3** of this bill requires each electric utility to offer net metering to customers who submit an application to the utility to install net metering systems after the date on which such revised cumulative capacity requirement is met in accordance with a tariff filed by the electric utility and approved by the Public Utilities Commission of Nevada. **Section 2.3** sets forth the authority of the Commission relative to the approval of such tariffs and authorizes the Commission to determine whether and the extent to which any tariff is applicable to existing customer-generators. **Section 4.5** of this bill requires each electric utility to submit to the Commission the proposed tariff required by **section 2.3** not later than July 31, 2015, and requires the Commission to review and approve or disapprove each such proposed tariff not later than December 31, 2015. **Section 4.5** provides that a tariff approved by the Commission

cannot take effect until after the date on which the cumulative capacity requirement prescribed by **section 2.95** is met. **Section 4.5** also requires an electric utility, in the event that the Commission does not approve a tariff on or before December 31, 2015, to offer net metering to customer-generators in accordance with applicable provisions of law as such provisions existed before the effective date of this bill for the period beginning January 1, 2016, and ending on the date on which the Commission approves a tariff, unless a court has issued an order staying or prohibiting the enforcement or issuance of a written order or tariff approved by the Commission.

Existing law prohibits an electric utility from making changes in any schedule or imposing any rate on residential customers which is based on the time of day, day of the week or time of year during which the electricity is used or which otherwise varies based upon the time during which the electricity is used. (NRS 704.085) **Section 2.5** of this bill provides that this prohibition does not apply to residential customers who are users of net metering systems.

Existing law requires each electric utility to submit to the Commission every 3 years a plan to increase the utility's supply of electricity or decrease the demands made on its system by its customers. Existing law provides that the plan must include certain components, including: (1) an energy efficiency program for residential customers; and (2) a comparison of a diverse set of scenarios to address issues relating to customer demand, which must include at least one scenario of low carbon intensity. (NRS 704.741) **Section 2.7** of this bill requires that the scenario of low carbon intensity must include the deployment of distributed generation. Additionally, **section 2.7** requires that the plan include an analysis of the effects of net metering on the reliability of the distribution system of the electric utility and the costs to the electric utility to provide electric service to all customers.

EXPLANATION – Matter in ***bolded italics*** is new; matter between brackets ~~[omitted material]~~ is material to be omitted

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THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 701.220 is hereby amended to read as follows:

701.220 1. The Director shall adopt regulations for the conservation of energy in buildings, including manufactured homes. ~~[Such]~~ ***Except as otherwise provided in subsection 5, such*** regulations must include the adoption of the most recent version of the International Energy Conservation Code, issued by the International Code Council, and any amendments to the Code that will not materially lessen the effective energy savings requirements of the Code and are deemed necessary to support effective compliance and enforcement of the Code, and must establish the minimum standards for:

(a) The construction of floors, walls, ceilings and roofs;

(b) The equipment and systems for heating, ventilation and air-conditioning;

(c) Electrical equipment and systems;

(d) Insulation; and

(e) Other factors which affect the use of energy in a building.

➥ The regulations must provide for the adoption of the most recent version of the International Energy Conservation Code, and any amendments thereto, every third year.

2. The Director may exempt a building from a standard if the Director determines that application of the standard to the building would not accomplish the purpose of the regulations.

3. The regulations must authorize allowances in design and construction for sources of renewable energy used to supply all or a part of the energy required in a building.

4. The standards adopted by the Director are the minimum standards for the conservation of energy and energy efficiency in buildings in this State. The governing body of a local government that is authorized by law to adopt and enforce a building code:

(a) Except as otherwise provided in paragraph (b), shall incorporate the standards adopted by the Director in its building code;

(b) ~~[May]~~ ***Except as otherwise provided in subsection 5, may*** adopt higher or more stringent standards and must report any such higher or more stringent standards, along with supporting documents, to the Director; and

(c) Shall enforce the standards adopted.

5. ***The Director or the governing body of a local government shall not adopt a standard which mandates a requirement for air changes per hour that is outside the following ranges:***

(a) Less than 4 1/2 or more than 7 air changes per hour for an attached residence or any residence for which fire sprinklers are installed; or

(b) Less than 4 or more than 7 air changes per hour for any residence other than a residence described in paragraph (a).

6. A design professional who complies with the standards adopted by the Director or the governing body of a local government pursuant to this section is not subject to disciplinary action by the State Board of Architecture, Interior Design and Residential Design pursuant to paragraph (f) of subsection 1 of NRS 623.270 or the State Board of Professional Engineers and Land Surveyors pursuant to NRS 625.410.

7. Nothing in this section shall be deemed to prohibit the Director or the governing body of a local government from approving and implementing a program for the purpose of increasing energy efficiency in new residential construction through the use of sample inspections.

8. The Director shall solicit comments regarding the adoption of regulations pursuant to this section from:

(a) Persons in the business of constructing and selling homes;

(b) Contractors;

(c) Public utilities;

(d) Local building officials; and

(e) The general public,

➥ before adopting any regulations. The Director must conduct at least three hearings in different locations in the State, after giving 30 days' notice of each hearing, before the Director may adopt any regulations pursuant to this section.

9. As used in this section, "design professional" means a person who holds a professional license or certificate issued pursuant to chapter 623 or 625 of NRS.

Sec. 2. (Deleted by amendment.)

Sec. 2.3. Chapter 704 of NRS is hereby amended by adding thereto a new section to read as follows:

1. Except as otherwise provided in subsection 3, each utility shall, in accordance with a tariff filed by the utility and approved by the Commission, offer net metering to customer-generators who submit applications to install net metering systems within its service territory after the date on which the cumulative capacity requirement described in paragraph (a) of subsection 1 of NRS 704.773 is met.

2. For the purposes of evaluating and approving any tariff filed with the Commission pursuant to subsection 1 and otherwise carrying out the provisions of this section, the Commission:

(a) May establish one or more rate classes for customer-generators.

(b) May establish terms and conditions for the participation by customer-generators in net metering, including, without limitation, limitations on enrollment in net metering which the Commission determines are appropriate to further the public interest.

(c) May close to new customer-generators a tariff filed pursuant to subsection 1 and approved by the Commission if the Commission determines that closing the tariff to new customer-generators is in the public interest.

(d) May authorize a utility to establish just and reasonable rates and charges to avoid, reduce or eliminate an unreasonable shifting of costs from customer-generators to other customers of the utility.

(e) Shall not approve a tariff filed pursuant to subsection 1 or authorize any rates or charges for net metering that unreasonably shift costs from customer-generators to other customers of the utility.

3. In approving any tariff submitted pursuant to subsection 1, the Commission shall determine whether and the extent to which any tariff approved or rates or charges authorized pursuant to this section are applicable to customer-generators who, on or before the date on which the cumulative capacity requirement described in paragraph (a) of subsection 1 of NRS 704.773 is met, submitted a complete application to install a net metering system within the service territory of a utility.

Sec. 2.5. NRS 704.085 is hereby amended to read as follows:

704.085 1. ~~[An]~~ ***Except as otherwise provided in subsection 2, an*** electric utility shall not make changes in any schedule or impose any rate, and the Commission shall not approve any changes in any schedule or authorize the imposition of any rate by an electric utility, which requires a residential customer to purchase electric service at a rate which is based on the time of day, day of the week or time of year during which the electricity is used or which otherwise varies based upon the time during which the electricity is used, except that the Commission may approve such a change in a schedule or authorize the imposition of such a rate if the approval or authorization is conditioned upon an election by a residential customer to purchase electric service at such a rate.

2. ***The provisions of subsection 1 do not apply to any changes in a schedule or rates imposed on a customer-generator.***

3. As used in this section ~~[, "electric]~~ ***:***

(a) "Customer-generator" has the meaning ascribed to it in NRS 704.768.

(b) "Electric utility" has the meaning ascribed to it in NRS 704.187.

Sec. 2.7. NRS 704.741 is hereby amended to read as follows:

704.741 1. A utility which supplies electricity in this State shall, on or before July 1 of every third year, in the manner specified by the Commission, submit a plan to increase its supply of electricity or decrease the demands made on its system by its customers to the Commission.

2. The Commission shall, by regulation:

(a) Prescribe the contents of such a plan, including, but not limited to, the methods or formulas which are used by the utility to:

(1) Forecast the future demands; and

(2) Determine the best combination of sources of supply to meet the demands or the best method to reduce them; and

(b) Designate renewable energy zones and revise the designated renewable energy zones as the Commission deems necessary.

3. The Commission shall require the utility to include in its plan:

(a) An energy efficiency program for residential customers which reduces the consumption of electricity or any fossil fuel and which includes, without limitation, the use of new solar thermal energy sources. ~~[; and]~~

(b) A comparison of a diverse set of scenarios of the best combination of sources of supply to meet the demands or the best methods to reduce the demands, which must include at least one scenario of low carbon intensity ~~[.]~~ ***that includes the deployment of distributed generation.***

(c) An analysis of the effects of the requirements of NRS 704.766 to 704.775, inclusive, and section 2.3 of this act on the reliability of the distribution system of the utility and the costs to the utility to provide electric service to all customers. The analysis must include an evaluation of the costs and benefits of addressing issues of reliability through investment in the distribution system.

4. The Commission shall require the utility to include in its plan a plan for construction or expansion of transmission facilities to serve renewable energy zones and to facilitate the utility in meeting the portfolio standard established by NRS 704.7821.

5. As used in this section:

(a) "Carbon intensity" means the amount of carbon by weight emitted per unit of energy consumed.

(b) "Renewable energy zones" means specific geographic zones where renewable energy resources are sufficient to develop generation capacity and where transmission constrains the delivery of electricity from those resources to customers.

Sec. 2.8. NRS 704.766 is hereby amended to read as follows:

704.766 It is hereby declared to be the purpose and policy of the Legislature in enacting NRS 704.766 to 704.775, inclusive, ***and section 2.3 of this act*** to:

1. Encourage private investment in renewable energy resources;

2. Stimulate the economic growth of this State;

3. Enhance the continued diversification of the energy resources used in this State; and

4. Streamline the process for customers of a utility to apply for and install net metering systems.

Sec. 2.9. NRS 704.767 is hereby amended to read as follows:

704.767 As used in NRS 704.766 to 704.775, inclusive, ***and section 2.3 of this act,*** unless the context otherwise requires, the words and terms defined in NRS 704.7675 to 704.772, inclusive, have the meanings ascribed to them in those sections.

Sec. 2.95. NRS 704.773 is hereby amended to read as follows:

704.773 1. A utility shall offer net metering ~~[, as set forth in]~~ ***:***

(a) In accordance with the provisions of this section, NRS ***704.774 and*** 704.775, to the customer-generators operating within its service area until the ***date on which the*** cumulative capacity of all net metering systems ~~[operating in this State is equal to 3 percent of the total peak capacity of]~~ ***for which*** all utilities in this State ~~[.]~~ ***have accepted or approved completed applications for net metering is equal to 235 megawatts.***

(b) After the date on which the cumulative capacity requirement described in paragraph (a) is met, in accordance with a tariff filed by the utility and approved by the Commission pursuant to section 2.3 of this act.

2. If the net metering system of a customer-generator who accepts the offer of a utility for net metering has a capacity of not more than 25 kilowatts, the utility:

(a) Shall offer to make available to the customer-generator an energy meter that is capable of registering the flow of electricity in two directions.

(b) May, at its own expense and with the written consent of the customer-generator, install one or more additional meters to monitor the flow of electricity in each direction.

(c) Except as otherwise provided in subsection 5, shall not charge a customer-generator any fee or charge that would increase the customer-generator's minimum monthly charge to an amount greater than that of other customers of the utility in the same rate class as the customer-generator.

3. If the net metering system of a customer-generator who accepts the offer of a utility for net metering has a capacity of more than 25 kilowatts, the utility:

(a) May require the customer-generator to install at its own cost:

(1) An energy meter that is capable of measuring generation output and customer load; and

(2) Any upgrades to the system of the utility that are required to make the net metering system compatible with the system of the utility.

(b) Except as otherwise provided in paragraph (c) and subsection 5, may charge the customer-generator any applicable fee or charge charged to other customers of the utility in the same rate class as the customer-generator, including, without limitation, customer, demand and facility charges.

(c) Shall not charge the customer-generator any standby charge.

➥ At the time of installation or upgrade of any portion of a net metering system, the utility must allow a customer-generator governed by this subsection to pay the entire cost of the installation or upgrade of the portion of the net metering system.

4. If the net metering system of a customer-generator is a net metering system described in paragraph (b) or (c) of subsection 1 of NRS 704.771 and:

(a) The system is intended primarily to offset part or all of the customer-generator's requirements for electricity on property contiguous to the property on which the net metering system is located; and

(b) The customer-generator sells or transfers his or her interest in the contiguous property,

➥ the net metering system ceases to be eligible to participate in net metering.

5. A utility shall assess against a customer-generator:

(a) If applicable, the universal energy charge imposed pursuant to NRS 702.160; ~~[and]~~

(b) Any charges imposed pursuant to chapter 701B of NRS or NRS 704.7827 or 704.785 which are assessed against other customers in the same rate class as the customer-generator ~~[.]~~ ***; and***

(c) The charges or rates, if any, which the Commission determines must be assessed against the customer-generator pursuant to any tariff submitted to and approved by the Commission pursuant to section 2.3 of this act.

➥ For any such charges calculated on the basis of a kilowatt-hour rate, the customer-generator must only be charged with respect to kilowatt-hours of energy delivered by the utility to the customer-generator.

6. The Commission shall adopt regulations prescribing the form and substance for a net metering tariff and a standard net metering contract. The regulations must include, without limitation:

(a) The particular provisions, limitations and responsibilities of a customer-generator which must be included in a net metering tariff with regard to:

(1) Metering equipment;

(2) Net energy metering and billing; and

(3) Interconnection,

➥ based on the allowable size of the net metering system.

(b) The particular provisions, limitations and responsibilities of a customer-generator and the utility which must be included in a standard net metering contract.

(c) A timeline for processing applications and contracts for net metering applicants.

(d) Any other provisions the Commission finds necessary to carry out the provisions of NRS 704.766 to 704.775, inclusive ~~.~~ , ***and section 2.3 of this act.***

Sec. 3. NRS 623.270 is hereby amended to read as follows:

623.270 1. ~~[The]~~ ***Except as otherwise provided in subsection 6 of NRS 701.220, the*** Board may place the holder of any certificate of registration issued pursuant to the provisions of this chapter on probation, publicly reprimand the holder of the certificate, impose a fine of not more than $10,000 against him or her, suspend or revoke his or her license, impose the costs of investigation and prosecution upon him or her or take any combination of these disciplinary actions for any of the following acts:

(a) The certificate was obtained by fraud or concealment of a material fact.

(b) The holder of the certificate has been found guilty by the Board or found guilty or guilty but mentally ill by a court of justice of any fraud, deceit or concealment of a material fact in his or her professional practice, or has been convicted by a court of justice of a crime involving moral turpitude.

(c) The holder of the certificate has been found guilty by the Board of incompetency, negligence or gross negligence in:

(1) The practice of architecture or residential design; or

(2) His or her practice as a registered interior designer.

(d) The holder of a certificate has affixed his or her signature or seal to plans, drawings, specifications or other instruments of service which have not been prepared by the holder of the certificate or in his or her office, or under his or her responsible control, or has permitted the use of his or her name to assist any person who is not a registered architect, registered interior designer or residential designer to evade any provision of this chapter.

(e) The holder of a certificate has aided or abetted any unauthorized person to practice:

(1) Architecture or residential design; or

(2) As a registered interior designer.

(f) The holder of the certificate has violated any law, regulation or code of ethics pertaining to:

(1) The practice of architecture or residential design; or

(2) Practice as a registered interior designer.

(g) The holder of a certificate has failed to comply with an order issued by the Board or has failed to cooperate with an investigation conducted by the Board.

2. The conditions for probation imposed pursuant to the provisions of subsection 1 may include, but are not limited to:

(a) Restriction on the scope of professional practice.

(b) Peer review.

(c) Required education or counseling.

(d) Payment of restitution to each person who suffered harm or loss.

3. An order that imposes discipline and the findings of fact and conclusions of law supporting that order are public records.

4. The Board shall not privately reprimand the holder of any certificate of registration issued pursuant to this chapter.

5. As used in this section:

(a) "Gross negligence" means conduct which demonstrates a reckless disregard of the consequences affecting the life or property of another person.

(b) "Incompetency" means conduct which, in:

(1) The practice of architecture or residential design; or

(2) Practice as a registered interior designer,

➥ demonstrates a significant lack of ability, knowledge or fitness to discharge a professional obligation.

(c) "Negligence" means a deviation from the normal standard of professional care exercised generally by other members in:

(1) The profession of architecture or residential design; or

(2) Practice as a registered interior designer.

Sec. 4. NRS 625.410 is hereby amended to read as follows:

625.410 ~~[The]~~ ***Except as otherwise provided in subsection 6 of NRS 701.220, the*** Board may take disciplinary action against a licensee, an applicant for licensure, an intern or an applicant for certification as an intern for:

1. The practice of any fraud or deceit in obtaining or attempting to obtain or renew a license or cheating on any examination required by this chapter.

2. Any gross negligence, incompetency or misconduct in the practice of professional engineering as a professional engineer or in the practice of land surveying as a professional land surveyor.

3. Aiding or abetting any person in the violation of any provision of this chapter or regulation adopted by the Board.

4. Conviction of or entry of a plea of nolo contendere to any crime an essential element of which is dishonesty or which is directly related to the practice of engineering or land surveying.

5. A violation of any provision of this chapter or regulation adopted by the Board.

6. Discipline by another state or territory, the District of Columbia, a foreign country, the Federal Government or any other governmental agency, if at least one of the grounds for discipline is the same or substantially equivalent to any ground contained in this chapter.

7. Practicing after the license of the professional engineer or professional land surveyor has expired or has been suspended or revoked.

8. Failing to comply with an order issued by the Board.

9. Failing to provide requested information within 30 days after receipt of a request by the Board or its investigators concerning a complaint made to the Board.

Sec. 4.5. 1. Each utility shall, on or before July 31, 2015, file with the Public Utilities Commission of Nevada a tariff required by section 2.3 of this act and a cost-of-service study.

2. The tariff filed pursuant to subsection 1 must establish the terms and conditions for net metering service for customer-generators who submit an application to the utility to install net metering systems within the service territory of the utility after the date on which the tariff takes effect. The terms and conditions of service must include, without limitation, the rates the utility must charge for providing electric service to customer-generators.

3. The rates included in the terms and conditions of service established pursuant to subsection 2 may include, without limitation:

(a) A basic service charge that reflects marginal fixed costs incurred by the utility to provide service to customer-generators;

(b) A demand charge that reflects the marginal demand costs incurred by the utility to provide service to customer-generators; and

(c) An energy charge that reflects the marginal energy costs incurred by the utility to provide service to customer-generators.

➥ The charges included pursuant to this subsection must adequately reflect the marginal costs of providing service to customer-generators.

4. The Public Utilities Commission of Nevada shall, in accordance with the provisions of section 2.3 of this act, conduct a review of each tariff filed by a utility pursuant to subsection 1 and issue a written order approving or disapproving, in whole or in part,

the proposed tariff not later than December 31, 2015. The Commission may make modifications to the tariff, including modifications to the rate design and the terms and conditions of net metering services to customer-generators. A tariff approved pursuant to this section must not take effect until after the date on which the cumulative capacity requirement described in paragraph (a) of subsection 1 of NRS 704.773 is met.

5. Except as otherwise provided in subsection 6, if for any reason the Commission does not approve a tariff as required by subsection 4 on or before December 31, 2015, and notwithstanding the amendatory provisions of this act to the contrary, for the period beginning January 1, 2016, and ending on the date on which the Commission approves a tariff pursuant to section 2.3 of this act, a utility shall offer net metering to customer-generators in a manner consistent with the provisions of NRS 704.773, 704.774 and 704.775 as those sections existed before the effective date of this act.

6. If a court of competent jurisdiction issues an order prohibiting the Commission from issuing a written order or approving a tariff as required by subsection 4, or staying or prohibiting the enforcement of a written order or tariff issued or approved pursuant thereto, an electric utility is not required to offer net metering after the date on which the cumulative capacity requirement described in paragraph (a) of subsection 1 of NRS 704.773 is met until after the date on which the order of the court has been lifted.

7. As used in this section:

(a) "Customer-generator" has the meaning ascribed to it in NRS 704.768.

(b) "Demand costs" means those costs associated with the maximum load requirement of a customer, such as kilowatt or kilovolt amperes, and which are typically represented by the electric utility's investment in generating units, transmission facilities and the distribution system.

(c) "Energy costs" means those costs associated with a customer's requirement for a volume of energy, such as fuel and purchased power costs.

(d) "Fixed costs" means those investments and expenses that do not vary with output and which typically reflect the electric utility's investment in back office systems, customer facilities, customer-related expenses and labor costs.

(e) "Net metering" has the meaning ascribed to it in NRS 704.769.

(f) "Net metering system" has the meaning ascribed to it in NRS 704.771.

(g) "Utility" has the meaning ascribed to it in NRS 704.772.

Sec. 5. This act becomes effective upon passage and approval.

Exhibit RG-3

Copies of Discovery Responses Referenced in Testimony

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041 **REQUEST DATE:** 8/24/2015

REQUEST NO.: VS 1-14

REQUESTER: **RESPONDER:** Bohrman, Jeff

REQUEST:

Please identify all other subgroups (i.e. customers with some common characteristic(s)) of residential and general service customers that were sampled, reviewed, and/or analyzed relating to whether they fall short of, meet or exceed the cost of providing electric service. If none, please explain why no such analysis has been undertaken.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

The Companies' marginal cost of service studies develop costs for each class, NEM and all others. The result of the exercise is to determine the cost of serve, not to determine some value that "falls short of, meets or exceeds the cost of providing electric service." The Companies have been tasked with developing costs to serve and then to design rates for NEM2 customers. The Companies have previously established three separate residential classes at Nevada Power (RS, RM, and LRS) and two at Sierra (D-1 and DM-1) in addition to optional Time-of-Use rate schedules for each residential and small general service offering. In addition, at both Companies, multiple classes of general service have already been established. Costs are developed for these multiple medium and large general service classes based on their unique characteristics. At this time, there is no plan to create additional residential or small general service rate schedules.

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041 **REQUEST DATE:** 8/24/2015

REQUEST NO.: VS 1-33

REQUESTER: **RESPONDER:** Laura Walsh

REQUEST: VS 1-33.

Referring to the first paragraph on page 19 of the Narrative (page 21 of 175, Volume 2, of the SPPC Application), please provide all analyses, documentation, and workpapers supporting the decision to include 38 percent of generation costs in the energy charge. Is the 38 percent figure based on a calculated capacity value for solar generation? If so, please provide the details and analyses used to develop the capacity value.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENTS CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: Two

RESPONSE:

Dating back to the 1st Amendment to the 2010 Nevada Power IRP, the Company has based its methodology for calculating the value of utility grade solar generation capacity on a study performed by the Pacific Northwest National Laboratory (PNNL). The results of this study, "Capacity Value Estimation for Solar Power in NV Energy System," are attached.

Resource Planning applies the 38% to the nameplate capacity of utility grade solar in its loads and resources table. This amount of capacity is the amount of capacity that can be relied upon from a utility-grade solar installation at the time of system peak. The decision "to include 38 percent of generation costs in the energy charge" was made based on NV Energy's conclusion that the potential generation capacity contribution of distributed generation installations, which generally are not designed and optimized in the same manner as utility-scale solar facilities, does not exceed the capacity contribution provided by utility-solar facilities for long-term resource planning purposes.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 9/14/2015

REQUEST NO.: VS 2-27

REQUESTER: **RESPONDER:** Schaar, Aaron

REQUEST:

Referring to first paragraph of Section 6 of the Narrative, for each operating company, please provide the questions and results for the surveys referenced.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: Two

RESPONSE:

The initial request was sent out to the group of respondents as a whole in an email. The email is attached as *Initital_Request150609.pdf*. The responses have already been provided in response to data request VS 1-26 as the CWFS Excel workpapers.

An example of the survey that each respondent was asked to update is attached as *Example_Survey_NPC_D402.xlsx*. The example is an updated survey, as noted by the highlighted "Net Metered" entries. The example is based on the response for department D402, Solar, Wind & Water Renewables.

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041 **REQUEST DATE:** 8/24/2015

REQUEST NO.: VS 1-02

REQUESTER: **RESPONDER:** Reid, Lorelei

REQUEST:

Referring to Volume 2 (Narrative and Technical Appendix), please provide all charts, tables, attachments, graphs, spreadsheets, statements, workpapers and underlying data in executable, unlocked, Excel-format (where possible) with formulas intact.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENTS CONFIDENTIAL (yes or no): Yes 1 of 35
Note: The confidential attachment(s) will not be available on the Company's website.

TOTAL NUMBER OF ATTACHMENTS: 1 Confidential, 35 Non-Confidential

RESPONSE:

Please find attached all the charts, tables, attachments, graphs and appendix files. All files are in excel.

Exhibit RG-3

Nevada Power - 2015 Update to Customer Weighting Factor Study (updated from 2014 GRC filing)

Customer Class	Customer Accounts Expenses FERC 901-904		Customer Services Expenses FERC 907-909		Total FERC 901-909	
	Cost per Customer	Weight	Cost per Customer	Weight	Cost per Customer	Weight
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PA	$41.91	1.00	$0.78	1.00	$42.69	1.00
Residential Service - Net Metering	$51.62	1.23	$14.08	17.95	$65.70	1.54
General Service - (GS,OGS-TOU, GS-PAL)	$45.04	1.07	$0.66	0.84	$45.70	1.07
General Service - Net Metering	$118.87	2.84	$29.75	37.91	$148.62	3.48
General Service - (GS) DOS	$116.58	2.78	$0.00	0.00	$116.58	2.73
Large General Service-1 - (LGS-1,OLGS1-TOU)	$78.92	1.88	$6.65	8.48	$85.58	2.00
Large General Service-1 - (LGS1) DOS	$444.92	10.62	$0.00	0.00	$444.92	10.42
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1	$299.61	7.15	$816.02	1039.75	$1,115.63	26.13
Large General Service - (LGS-2, LGS-3,LGS-WP2,LGS-WP3) DOS	$477.65	11.40	$704.12	897.17	$1,181.78	27.68
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$16,023.12	382.34	$42,566.76	54237.24	$58,589.88	1372.37
Overall Weight (n1)		1.05		3.50		1.10

Customer Accounts Expenses FERC 901-904		Customer Services Expenses FERC 907-909	
901	Supervision	907	Supervision
902	Meter Reading	908	Customer Assistance
903	Customer Record/Collection	909	Advertising
904	Uncollectibles		

Exhibit RG-3

Cost per Customer by Account

Account Number	901	902	903	904	905	907	908	909
Customer Class								
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PA	$1.10	$0.00	$23.08	$17.73	$0.00	$0.30	$0.48	$0.00
Residential Service - Net Metering	$1.70	$0.00	$49.46	$0.45	$0.00	$12.95	$1.13	$0.00
General Service - (GS,OGS-TOU, GS-PAL)	$1.67	$0.00	$38.31	$5.06	$0.00	$0.41	$0 25	$0.00
General Service - Net Metering	$10.12	$0.00	$108.74	$0.00	$0.00	$28.06	$1 69	$0.00
General Service - (GS) DOS	$0.13	$0.00	$116.44	$0.00	$0.00	$0.00	$0 00	$0.00
Large General Service-1 - (LGS-1,OLGS1-TOU)	$1.35	$0.00	$57.94	$19 63	$0.00	$4.65	$2 01	$0.00
Large General Service-1 - (LGS1) DOS	$25.63	$0.00	$419.29	$0.00	$0.00	$0.00	$0 00	$0.00
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,	$15.47	$0.00	$196.27	$87 88	$0.00	$301.83	$514.19	$0.00
Large General Service - (LGS-2, LGS-3,LGS-WP2,LGS-WP3) DOS	$25.98	$0.00	$451.67	$0.00	$0.00	$139.89	$564.23	$0.00
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$951.30	$0.00	$15,071.82	$0.00	$0.00	$14,343 08	$28,223.68	$0.00

2013 Customer Count

Customer Class	Customers	% of Total
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PA	748,914	87.1842%
Residential Service - Net Metering	5,451	0.6346%
General Service - (GS,OGS-TOU, GS-PAL)	75,568	8.7971%
General Service - Net Metering	67	0.0078%
General Service - (GS) DOS	3	0.0003%
Large General Service-1 - (LGS-1,OLGS1-TOU)	27,351	3.1841%
Large General Service-1 - (LGS1) DOS	3	0.0003%
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,	1,594	0.1856%
Large General Service - (LGS-2, LGS-3,LGS-WP2,LGS-WP3) DOS	47	0.0054%
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	5	0.0006%
Total	859,002	100.00%

Services W/out D402		**Services for D402**		**Services w/D402 included above**
907	908	907	908	
$0.30	$0.48	$0.01	$0 00	
$0.30	$0.48	$12.65	$0 66	
$0.40	$0.25	$0.00	$0 00	
$0.40	$0.25	$27.66	$1.43	
$0.00	$0.00	$0.00	$0 00	
$4.65	$2.01	$0.00	$0 00	
$0.00	$0.00	$0.00	$0 00	
$301.75	$514.18	$0.09	$0 00	
$139.89	$564 23	$0.00	$0 00	
$14,342.80	$28,223.67	$0.28	$0 01	

Summary of Account Totals

Account Number	901	902	903	904	905	907	908	909	TOTAL
Customer Class									
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PA	$823,047.46	$0.00	$17,284,914.20	$13,277,274.95	$0.00	$223,680.21	$359,430.69	$28.41	$31,968,375.91
Residential Service - Net Metering	$9,264.99	$0.00	$269,620.26	$2,469.58	$0.00	$0.00	$0.00	$0 00	$281,354.83
General Service - (GS,OGS-TOU, GS-PAL)	$126,446.57	$0.00	$2,895,084.29	$382,268.22	$0.00	$30,557.99	$19,158.07	$0 24	$3,453,515.38
General Service - Net Metering	$678.21	$0.00	$7,285.88	$0.00	$0.00	$0.00	$0.00	$0 00	$7,964.10
General Service - (GS) DOS	$0.40	$0.00	$349.33	$0.00	$0.00	$0.00	$0.00	$0 00	$349.73
Large General Service-1 - (LGS-1,OLGS1-TOU)	$36,852.54	$0.00	$1,584,784.92	$536,965.84	$0.00	$127,133.12	$54,873.42	$0.42	$2,340,610.25
Large General Service-1 - (LGS1) DOS	$68.36	$0.00	$1,118.10	$0.00	$0.00	$0.00	$0.00	$0 00	$1,186.46
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,	$24,661.44	$0.00	$312,898.89	$140,097.36	$0.00	$481,057.67	$819,737.61	$0 01	$1,778,452.97
Large General Service - (LGS-2, LGS-3,LGS-WP2,LGS-WP3) DOS	$1,208.21	$0.00	$21,002.59	$0.00	$0.00	$6,504.95	$26,236.81	$0 00	$54,952.56
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$4,756.51	$0.00	$75,359.08	$0.00	$0.00	$71,713.99	$141,118.34	$0 00	$292,947.92

ACCOUNT TOTALS	$1,026,984.68	$0.00	$22,452,417.54	$14,339,075.94	$0.00	$940,647.93	$1,420,554.93	$29 08	$40,179,710.10

Customer Accounts Expense: $37,818,478.16 **Customer Services Expense: $2,361,231.95**

Footnotes:

1) Customer Count is from the December 31, 2013 Financial Statements based on average number of customers updated with Net Metering customer counts for Residential and General Service categories.

2) DSM amortizations are booked to Account 908 (Customer Assistance Expense), and have been removed from this analysis pursuant to the order in NPC Docket No. 08-12002.

Exhibit RG-3

Department: D264 Completed by: Aaron Schaar/Travis Johnson Dept. # D264

Renewables Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$20,857.00	$1.10	$0.00	$0.00	
Residential Service - Net Metering										
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$1,379.29	$0.07	$0.00	$0.00	
General Service - Net Metering										
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$5,952.32	$0.31	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$29,356.50	$1.55	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$1,583.98	$0.08	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$90.54	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$59,219.63	$3.12	$0.00	$0.00	$59,222.75

Based on conversation with Travis Johnson, the allocation has been based on the following:
57% of time spent on Nellis PV to benefit all customers (equal split to all classes based on annual kWh per class)
43% of time spent on EV program. Going forward, will be split heavily towards LGS-3 (32%) with some allocation to residential(11%).

Department: D306 Completed by: R.Wood Dept. # D306

Dist Design Svcs, SNV Region Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$57,815.16	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering										
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering										
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$10,202.67	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$68,017.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$68,017.83

D306 904 expenses excluded as part of "Letter of Compromise" issue.
See email correspondence with Eric Gernhart and Renee Wood dated.
$564,510 in 904 expenses excluded

2015 Update: Per Mike Simmons, Net Metering customers do not usually incur expenses in Distribution Design.

Exhibit RG-3

Department: D400 Completed by: Kelly Vagianos Dept. # D400

Energy Efficiency&Conservation Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$22,953.01	$10,916.08	$0.00	$0.00	
Residential Service - Net Metering										
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$3,554.31	$1,690.37	$0.00	$0.00	
General Service - Net Metering										
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$15,472.79	$7,358.61	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$34,974.78	$16,633.45	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$5,014.76	$2,384.94	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$81,969.65	$38,983.45	$0.00	$0.00	$120,953.10

D400 implements all programs in the DSM portfolio, except for Demand Response programs. We utilized the total 2014 projected lost revenue (kWh) by rate class that will be filed in the 2014 DEAA on March 1, 2014 (Exhibit J-2), but removed all the kWh associated with the Demand Response program.

Department: D402 Completed by: Kelly Johnson Dept. # D402

Solar, Wind & Water Renewable Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering						$0.00	$0.00			
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering						$0.00	$0.00			
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$45,924.29	$2,685.28	$0.00	$0.00	$48,609.57

2015 Update: The allocation for D402 was accounted for seperately. The cost per customer for D402 was added to the overall cost per customer

	Allocation		Allocation w/ combined classes		Cost per Customer	
	907	908	907	908		
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$4,399.35	$227.80	$4,399.35	$227.80	$ 0.01	$ 0.00
Residential Service - Net Metering	$68,958.30	$3,570.73	$68,958.30	$3,570.73	$ 12.65	$ 0.66
General Service - (GS,OGS-TOU, GS-PAL)	$120.53	$6.24	$120.53	$6.24	$ 0.00	$ 0.00
General Service - Net Metering	$1,853.15	$95.96	$1,853.15	$95.96	$ 27.66	$ 1.43
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$ -	$ -
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$ -	$ -
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$ -	$ -
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$135.67	$7.02	$139.82	$7.24	$ 0.09	$ 0.00
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$ -	$ -
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$1.40	$0.07	$1.40	$0.07	$ 0.28	$ 0.01
Large General Service - (LGS-WP2,LGS-WP3)	$4.15	$0.21				
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00				

$75,472.56	$3,908.04	$75,472.56	$3,908.04

Exhibit RG-3

Department:	D403	Completed by:	Kelly Vagianos	Dept. #	D403
Demand Resp & Dist Energy Resr				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$22,977.41	$0.00	$0.00	$0.00	$815.75	$2,869.16	$0.00	$0.00	
Residential Service - Net Metering										
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$19.73	$0.00	$0.00	$0.00	$0.70	$2.46	$0.00	$0.00	
General Service - Net Metering										
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$41.72	$0.00	$0.00	$0.00	$1.48	$5.21	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$6,396.06	$0.00	$0.00	$0.00	$227.07	$798.67	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$29,434.91	$0.00	$0.00	$0.00	$1,045.00	$3,675.50	$0.00	$0.00	$34,155.41

D403 implements all programs Demand Response programs only. We utilized the total 2014 projected lost revenue (kWh) by rate class that will be filed in the 2014 DEAA on March 1, 2014 (Exhibit J-2), but removed all the kWh associated with the DSM programs.

2015 Update: Did not update since 902 expenses are zeroed out in this study.

Department:	D404	Completed by:	Kelly Vagianos	Dept. #	D404
Energy Audit and Education				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$17,024.42	$306,647.73	$28.41	$0.00	
Residential Service - Net Metering										
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$141.13	$2,542.02	$0.24	$0.00	
General Service - Net Metering										
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$252.54	$4,548.88	$0.42	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$7.43	$133.79	$0.01	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$17,425.52	$313,872.41	$29.08	$0.00	$331,327.01

We utilized the rate classes of the actual 2013 customers that received energy audits.

Exhibit RG-3

Department: D420 Completed by: Ray Nicolas Dept. # D420

Major Accounts - NVE South Date: 16-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering										
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$2,317.65	$9,347.92	$0.00	$0.00	
General Service - Net Metering										
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$4,635.30	$18,695.84	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$178,459.16	$719,789.99	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$3,100.93	$12,507.15	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$32,447.12	$130,870.91	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$6,621.53	$26,707.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$3,404.02	$13,729.66	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$230,985.71	$931,648.47	$0.00	$0.00	$1,162,634.19

Methodology: Percentage allocation is generally based on number of accounts while taking into consideration that the LGS-X accounts generally require greater time commitment.

Department: D425 Completed by: Mark Shank Dept. # D425

VP Customer Relationship Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$114,431.40	$0.00	$93,957.98	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$1,278.19		$1,034.53							
General Service - (GS,OGS-TOU, GS-PAL)	$18,769.17	$0.00	$15,393.87	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$67.27		$70.03							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$134,546.03	$0.00	$110,456.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$245,002.44

Weightings based on the YTD (January 29, 2014) mix of residential vs. small/medium commercial customers for the combined company.

Per email from Mark Shank, he is retiring and does not know if this position will go away at that time or if the function will be served by a different position.
I (Aaron) assumed that this function will still be performed in this or other departments going forward.
2015 Update: Used 1% allocation to net metering split based on customer counts. (Denice Tsuda)

Exhibit RG-3

Department:	D430	Completed by:	Gretchen Djukanovich	Dept. #	D430
Cust Srvc-Training/Performance				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$303,210.25	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$37,901.28	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$3,445.57	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$344,557.10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$344,557.10

Need to review the below notes...it is believed that the function will still be served in other depts.
Please do not inlcude this D430 as this department will no longer exist after Feburary 2014 and will fold into other departments. There work will not impact other studies.
This figures were based on what was used in the past with a slight modification to current work they will be performing.
Included in this study since functions will be served by the same employees just in different departments.

2015 Update: No net metering allocation. (Gretchen Djukanovich)

Department:	D431	Completed by:	Gretchen Djukanovich	Dept. #	D431
Call Centers - NVE South				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$247,346.70	$1,237.14	$7,416,205.22	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$0.00		$0.00							
General Service - (GS,OGS-TOU, GS-PAL)	$30,918.34	$154.64	$927,025.65	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$0.00		$0.00							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$2,810.76	$14.06	$84,275.06	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$281,075.79	$1,405.84	$8,427,505.93	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$8,709,987.56

Same methodology as 2011 with no changes.

2015 Update: No net metering allocation. (Gretchen Djukanovich)

Exhibit RG-3

Department: D432 Completed by: Gretchen Djukanovich Dept. # D432

Call Centers - NVE North Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$139,951.93	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$0.00		$0.00							
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$1,413.66	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$0.00		$0.00							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$141,365.59	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$141,365.59

This information is for Manager who oversees South work

2015 Update: No net metering allocation. (Gretchen Djukanovich)

Department: D433 Completed by: Linda Ellsworth Dept. # D433

Final Bills Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY 45608.55436 1091608.631
1312.87923 31422.83983

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$45,600.07	$0.00	$1,091,405.63	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$8.48		$203.00							
General Service - (GS,OGS-TOU, GS-PAL)	$1,312.88	$0.00	$31,422.84	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$0.00		$0.00							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$1,844.18	$0.00	$44,139.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$481.16	$0.00	$11,516.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$49,246.77	$0.00	$1,178,686.76	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,227,933.53

Percentages based on bad debt write-off per customer class

Used 3 year average bad debt, 2011-2013

2015 Update:Allocated based on 3 year average bad debt with net metering seperately identified.

Exhibit RG-3

Department: D434 Completed by: Linda Ellsworth Dept. # D434

Uncollectible Expense Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$0.00	$13,277,274.95	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering				$2,469.58						
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$382,268.22	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering				$0.00						
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$536,965.84	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$140,097.36	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$14,339,075.94	$0.00	$0.00	$0.00	$0.00	$0.00	$14,339,075.94

Percentages based on bad debt write-off per customer class

Used 3 year average bad debt, 2011-2013

2015 Update: Used 3 year average bad debt 2011-2013 with NM classes separately identified

Department: D436 Completed by: Antoine Tilmon Dept. # D436

Collections - NVE South Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY 63385.322 403224.402

18472.29384 0 117511.1114

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$62,927.30	$0.00	$400,310.72	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$458.02		$2,913.68							
General Service - (GS,OGS-TOU, GS-PAL)	$18,455.93	$0.00	$117,407.02	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$16.36		$104.10							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$8,149.54	$0.00	$51,843.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$18.11	$0.00	$115.21	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$90.55	$0.00	$576.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$90.55	$0.00	$576.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$90.55	$0.00	$576.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$90.55	$0.00	$576.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$162.99	$0.00	$1,036.86	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$90,550.46	$0.00	$576,034.86	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$666,585.32

2015 Update: Service is automated. Net metering customers would incur the same expense as the otherwise applicable class on a per customer basis.

Exhibit RG-3

Department:	D440	Completed by:	Denice Tsuda	Dept. #	D440
Credit & Billing - Manager				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$52,013.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering			$1,929.39							
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$53,918.99	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering			$23.71							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$107,885.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$215,770.82	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$215,770.82

NPC NEM Cust#s		
Res NEM	5,451	93.7%
GS NEM	67	1.2%
LGS-1	233	4.0%
LGS-2	66	1.1%
LGS-3	3	0.1%
	5,820	

2015 Update: 1 Director invovled 1% of the time ($2060). Allocate $2060 to NEM on a specified split between NEM customers, shown at right (Denice Tsuda) **2060**

Department:	D441	Completed by: Antoine Tilmon		Dept. #	D441
Billing - NVE South				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$55,472.10	$0.00	$4,276,560.46	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$3,319.18		$223,252.29							
General Service - (GS,OGS-TOU, GS-PAL)	$10,095.63	$0.00	$951,761.67	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$40.80		$2,744.07							
General Service - (GS) DOS	$0.00	$0.00	$340.89	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$15,204.64	$0.00	$1,049,274.52	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$340.89	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$15,204.64	$0.00	$170,447.45	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$3,408.95	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$2,027.29	$0.00	$68,178.98	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$68,178.98	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$3,408.95	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$101,364.27	$0.00	$6,817,898.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$6,919,262.38

	CSRs	Ratio	Adj Ratio	Adj Ratio by class	
Residential Service - RS	14	0.636363636	0.636363636	0.65137931	0.66
General Service - GS				0.09	0.04
Large General Service-1 - LGS-1				0.325	0.175371353
LGS - (LGS-2, LGS-3, LSR, Public Authorities)	8	0.363636364	0.363636364	0.5	0.024230769
Large General Service - Extra Large LGS-X				0.025	0.0875
total	22	1	1	1.59137931	0.987102122

*average for 12 months ended June 30, 2010

2015 Update: 3 CSRs ($234,062) plus 5% of one supervisor ($7,847), or $241,909 , allocated based on NEM cust #s above (Denice Tsuda)

	241909	901	903
		$3,543.86	$238,365.14

DOS allocations based on time spent on DOS bills, per Antoine Tilmon.

Exhibit RG-3

Department:	D444	Completed by:	Gretchen Djukanovich	Dept. #	D444
Outlying Distr/Brnch NVE South				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$480,199.13	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$0.00		$0.00							
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$25,542.51	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$0.00		$0.00							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$5,108.50	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$510,850.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$510,850.14

Please remove from study going forward. D444 will no longer be a department after April 2014.
Continued with same figures from last weighting study, no changes.
Included in this study as functions will still be performed in other departments. See correspondence with Gretchen Djukanovich.

2015 Update: No net metering allocation. (Gretchen Djukanovich)

Department:	D449	Completed by:	Dan Gerome	Dept. #	D449
Advanced MDM Operations				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$381,144.26	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	74.36%
Residential Service - Net Metering			$3,285.83							0.64%
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$71,682.96	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	13.98%
General Service - Net Metering			$75.27							0.01%
General Service - (GS) DOS	$0.00	$0.00	$2.05	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$25,628.67	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	5.00%
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$256.29	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.05%
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$20,502.94	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	4.00%
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$2,306.58	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.45%
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$2,562.87	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.50%
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$2,562.87	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.50%
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$2,562.87	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.50%
ACCOUNT TOTALS	$0.00	$0.00	$512,573.45	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$512,573.45

Per telephone conversation with Dan Gerome, D449, D455, and D831 expenses allocated generally on customer count, but modified to reflect increased effort/expense required for larger customer classes.

2015 Update: Expenses are approximately 15% higher per customer for Net Metered Customers (Dan Gerome)

Exhibit RG-3

Department:	D450	Completed by:	Carlos Saldaña	Dept. #	D450
Meter Services & Applications				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

		48796.4469	334348.1949	332565.324						
		5608.787	38430.827	32891.076						
Account Number		901	902	903	904	905	907	908	909	910
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$48,443.85	$331,932.21	$330,162.22	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$352.60	$2,415.98	$2,403.10							
General Service - (GS,OGS-TOU, GS-PAL)	$5,603.82	$38,396.78	$32,861.94	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$4.97	$34.04	$29.14							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$1,682.64	$11,529.25	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$56,087.87	$384,308.27	$365,456.40	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$805,852.54

Methodology: Splits for 2014 are based on population of meters handled by the smart meter system (RNI) as opposed to the manual process.
Meter counts and meter types by rate classes were utilized to determine estimates for the 2014 percentages. Additionally for the purposes of preparing these estimates, all Large General Service categories were combined.

2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class (Jim Christensen)

Department:	D452	Completed by:	Carlos Saldaña	Dept. #	D452
Electric Meter Ops - NVE South				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

			126.2276	12875.303						
			126.2276	2758.9935						
Account Number		901	902	903	904	905	907	908	909	910
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$125.32	$8,583.54	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering		$0.91	$4,291.77							
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$126.12	$2,756.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering		$0.11	$2.44							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$5,680.24	$2,758.99	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$63.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$63.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$63.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$63.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$63.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$63.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$6,311.38	$18,393.29	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$24,704.67

Methodology: Splits for 2014 are based on population of meters handled by the smart meter system (RNI) as opposed to the manual process.
Meter counts and meter types by rate classes were utilized to determine estimates for the 2014 percentages. Additionally for the purposes of preparing these estimates, all Large General Service categories were combined.

2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class in 902; 903 expenses are allocated 1/3 toward Net Metered (Jim Christensen)

Exhibit RG-3

Department:	D453	Completed by:	Carlos Saldaña	Dept. #	D453
Field Services - NVE South				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

229759.8332
90694.671
14855.4364
252542.4188

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$228,099.60	$14,748.09	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering		$1,660.23	$107.34							
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$90,614.33	$252,318.71	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering		$80.34	$223.71							
General Service - (GS) DOS	$0.00	$6,046.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$151,157.79	$103,988.05	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$6,046.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$96,740.98	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$6,046.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$6,046.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$6,046.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$6,046.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$604,631.14	$371,385.91	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$976,017.05

Methodology: Splits for 2014 are based on population of meters handled by the smart meter system (RNI) as opposed to the manual process.
Meter counts and meter types by rate classes were utilized to determine estimates for the 2014 percentages. Additionally for the purposes of preparing these estimates, all Large General Service categories were combined.

2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class (Jim Christensen)

Department:	D454	Completed by:	Carlos Saldaña (included MDM Licensing costs per Gary McDonald)	Dept. #	D454
Meter Reading - NVE South				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

275747.2615
27647.17534

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$273,754.73	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering			$1,992.54							
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$27,622.68	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering			$24.49							
General Service - (GS) DOS	$0.00	$0.00	$1.10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$9,997.89	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.97	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$565.45	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$8.10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$5.85	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$17.30	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$8.89	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$314,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$314,000.00

Methodology: D454 (Meter Reading) as a department was de-commissioned as a result of the full scale AMI deployment - ongoing meter reading functions and associated costs reside in D450 & D453.

2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class (Jim Christensen)

Exhibit RG-3

Department: D455 Completed by: Dan Gerome Dept. # D455

Customer Information Systems Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	5,893.48	$0.00	262,641.72	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	74.36%
Residential Service - Net Metering	50.81		2,264.22							0.64%
General Service - (GS,OGS-TOU, GS-PAL)	1,108.40	$0.00	49,395.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	13.98%
General Service - Net Metering	1.16		51.87							0.01%
General Service - (GS) DOS	$0.03	$0.00	$1.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service-1 - (LGS-1,OLGS1-TOU)	$396.29	$0.00	$17,660.40	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	5.00%
Large General Service-1 - (LGS1) DOS	$3.96	$0.00	$176.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.05%
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$317.03	$0.00	$14,128.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	4.00%
Large General Service - (LGS-2 & LGS-3) DOS	$35.67	$0.00	$1,589.44	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.45%
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$39.63	$0.00	$1,766.04	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.50%
Large General Service - (LGS-WP2,LGS-WP3)	$39.63	$0.00	$1,766.04	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.50%
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$39.63	$0.00	$1,766.04	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.50%
ACCOUNT TOTALS	$7,925.71	$0.00	$353,207.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$361,133.63

D449, D455, and D831 expenses allocated generally on customer count, but modified to reflect increased effort/expense required for larger customer classes.

2015 Update: Expenses are approximately 15% higher per customer for Net Metered Customers (Dan Gerome)

Department: D460 Completed by: Schad Koon Dept. # D460

Customer Programs & Services Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$174,101.82	$0.00	$1,328,347.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$3,204.33		$22,771.67							
General Service - (GS,OGS-TOU, GS-PAL)	$27,236.79	$0.00	$148,015.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$534.05		$3,795.28							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$2,136.22	$0.00	$15,181.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$2,136.22	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$2,136.22	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$2,136.22	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$213,621.87	$0.00	$1,518,111.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,731,732.90

Exhibit RG-3

Department D460 is the Customer Services and Programs area. This area includes the support for online (web) customer self-service support which includes the care and maintenance of the customer facing smart meter tools. These tools are available for residential and small and medium commercial customers. These tools were added after the last weighting study in 2011 was completed and has contributed to the realignment of the weightings provided. Customer programs such as payment channels, paperless billing and other programs are managed in this area. To my knowledge, D460 does not have any interaction with DOS rate classes. D460 also addresses and resolves escalated customer complaints that are presented to NVE. These complaints are received through the Public Utilities Commission of Nevada, the NVE Executive offices, Better Business Bureau or in some cases through the US mail or email. The majority of these complaints are pertaining to residential or small and medium commercial customers although LGS complaints are also received on occasion. The majority of the LGS related matters are handled by the Major Accounts team and that is the reasoning for the very low weighting that was provided for those classes of service. D460 also is responsible for administering and reporting all of the customer satisfaction feedback surveys. Traditionally, these surveys are conducted through the year with residential and small and medium commercial customers on a quarterly basis. There is also an annual survey conducted with major account customers as well. Looking forward in 2014 and beyond, the frequency and make-up of these customer feedback surveys is being revamped. Final decisions pertaining to surveys are still being discussed. One final responsibility for D460 is the implementation of new and enhanced customer self-service tools. This includes work that is completed to offer additional customer service programs and services.

2015 Update: Allocation of 901 expenses by percentage 81.5% Res, 1.5% Res NEM, 12.75% GS, and 0.25% GS NEM (Schad Koon)
Allocation of 903 expenses 87.5% Res, 1.5% Res NEM, 9.75% GS, and 0.25% GS NEM

Exhibit RG-3

Department:	D622	Completed by:	Jenifer Root	Dept. #	D622
Remittance Processing				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

39386.9475
85401.72757

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$39,102.34	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering			$284.61							
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$85,326.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering			$75.65							
General Service - (GS) DOS	$0.00	$0.00	$2.07	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$30,883.34	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$3.01	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$1,746.68	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$25.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$18.07	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$53.45	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$27.48	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$157,547.79	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$157,547.79

Methodology: We estimated 90% of the mail is residential, based on the % of 'short' envelopes processed on the OPEX equipment. Because this was so close the number of actual residential customers, we are using the 87.8% rate and all other base % by customer. The 'short' mail is processed on the OPEX machine, while all other mail is processed manually. For a staff of 5 people, we believe 3 are essentially requried to handle the manual mail, 1 person handles the 'short' mail, and the 5th handles controls/reporting/etc. With this in mind, the actual time spent on residential mail is 25% and the rest 75%. the calculation used is noted below.

2015 Update: Allocate equally on per customer basis between NEM and OAC. Same cost per cust. (Jeni Root)

Department:	D830	Completed by:	Dennis McCombs	Dept. #	D830
T&D and ERP Systems				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

34938.2352
3573.2286

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$34,685.77	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering			$252.46							
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$3,570.06	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering			$3.17							
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$1,191.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$39,702.54	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$39,702.54

No change in allocation from last study. Percentage allocated based on customer count.
Changed typo for allocation of 3% to GS DOS to 3% allocation for LGS-1. (Now 0% to GS DOS and 3% to LGS-1)

2015 Update: Verified with department head, kept per customer allocation the same and just split out the NEM customers. (Aaron Schaar)

Exhibit RG-3

Department:	D831	Completed by:	Dan Gerome	Dept. #	D831
CIS Applications				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$68,830.75	$0.00	$334,800.36	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering	$593.39		$2,886.30							
General Service - (GS,OGS-TOU, GS-PAL)	$12,945.21	$0.00	$62,966.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering	$13.59		$66.12							
General Service - (GS) DOS	$0.37	$0.00	$1.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$4,628.28	$0.00	$22,512.44	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$46.28	$0.00	$225.12	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$3,702.62	$0.00	$18,009.95	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$416.54	$0.00	$2,026.12	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$462.83	$0.00	$2,251.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$462.83	$0.00	$2,251.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$462.83	$0.00	$2,251.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$92,565.51	$0.00	$450,248.87	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$542,814.38

D449, D455, and D831 expenses allocated generally on customer count, but modified to reflect increased effort/expense required for larger customer classes.

2015 Update: Expenses are approximately 15% higher per customer for Net Metered Customers (Dan Gerome)

Department:	D853	Completed by:		Dept. #	D853
Legal				Date:	22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Residential Service - Net Metering										
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
General Service - Net Metering										
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Expenses were related to docket for change to Rule 9 (12-10004) and will not be recurring expenses. As such, they have been excluded from the study.

Exhibit RG-3

Department: D867 Completed by: Kelly Vagianos Dept. # D867

Customer Strategy & Programs Date: 22-Jan

ELECTRIC CUSTOMER WEIGHTING FACTOR STUDY

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$162,030.04	$38,996.62	$0.00	$0.00	
Residential Service - Net Metering										
General Service - (GS,OGS-TOU, GS-PAL)	$0.00	$0.00	$0.00	$0.00	$0.00	$23,164.91	$5,575.22	$0.00	$0.00	
General Service - Net Metering										
General Service - (GS) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service-1 - (LGS-1,OLGS1-TOU)	$0.00	$0.00	$0.00	$0.00	$0.00	$100,818.68	$24,264.56	$0.00	$0.00	
Large General Service-1 - (LGS1) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$0.00	$0.00	$0.00	$0.00	$0.00	$231,320.65	$55,673.16	$0.00	$0.00	
Large General Service - (LGS-2 & LGS-3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$0.00	$0.00	$0.00	$0.00	$0.00	$32,668.14	$7,862.41	$0.00	$0.00	
Large General Service - (LGS-WP2,LGS-WP3)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$550,002.42	$132,371.98	$0.00	$0.00	$682,374.40

D867 provides regulatory support for all programs in the DSM portfolio. Therefore, we utilized the total 2014 projected lost revenue (kWh) by rate class that will be filed in the 2014 DEAA on March 1, 2014 (Exhibit J-2).

GRAND TOTAL - By Account:

0 => Exclude 902 Expenses

0

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential Service - (RS,RM,RSL,ORS,ORM,ORS-TOU,ORM-TOU,RS-PAL)	$823,047.46	$0.00	$17,284,914.20	$13,277,274.95	$0.00	$223,680.21	$359,430.69	$28.41		
Residential Service - Net Metering	$9,264.99	$0.00	$269,620.26	$2,469.58	$0.00	$0.00	$0.00	$0.00		
General Service - (GS,OGS-TOU, GS-PAL)	$126,446.17	$0.00	$2,894,734.97	$382,268.22	$0.00	$30,557.99	$19,158.07	$0.24		
General Service - Net Metering	$678.21	$0.00	$7,285.88	$0.00	$0.00	$0.00	$0.00	$0.00		
General Service - (GS) DOS	$0.40	$0.00	$349.33	$0.00	$0.00	$0.00	$0.00	$0.00		
Large General Service-1 - (LGS-1,OLGS1-TOU)	$36,852.54	$0.00	$1,584,784.92	$536,965.84	$0.00	$127,133.12	$54,873.42	$0.42		
Large General Service-1 - (LGS1) DOS	$68.36	$0.00	$1,118.10	$0.00	$0.00	$0.00	$0.00	$0.00		
Large General Service - (LGS-2P,LGS-2S,LGS-3P,LGS-3S,LGS-3T,LSR-1,LSR-2)	$21,932.22	$0.00	$237,492.97	$140,097.36	$0.00	$474,345.60	$793,030.60	$0.01		
Large General Service - (LGS-2 & LGS-3) DOS	$542.76	$0.00	$9,940.25	$0.00	$0.00	$3,100.93	$12,507.15	$0.00		
Large General Service - (LGS-XP,LGS-XS,LGS-XT)	$4,756.51	$0.00	$75,359.08	$0.00	$0.00	$71,713.99	$141,118.34	$0.00		
Large General Service - (LGS-WP2,LGS-WP3)	$2,729.23	$0.00	$75,405.91	$0.00	$0.00	$6,712.07	$26,707.01	$0.00		
Large General Service - (LGS-WP2 & LGS-WP3) DOS	$665.45	$0.00	$11,062.33	$0.00	$0.00	$3,404.02	$13,729.66	$0.00		
ACCOUNT TOTALS	$1,026,984.28	$0.00	$22,452,068.21	$14,339,075.94	$0.00	$940,647.93	$1,420,554.93	$29.08	$0.00	$40,179,360.38

Exhibit RG-3

Dept.	Description	Total $	
D000	Balance Sheet	$ 153,477	Balance Sheet Adjustments
D022	NVEnergize	$ 3,437	Too Small
D075	Financial Planning & Analysis	$ 1,264	Too Small
D116	Generation Engineering	$ 64	Too Small
D263	Resource Planning & Analysis	$ 3,747	Too Small
D264	Renewables	$ 59,223	
D305	Southern NV Region - Executive	$ 2,276	Too Small
D306	Dist Design Svcs, SNV Region	$ 632,528	
D307	Lines Construct/Maint South	$ 8,832	Too Small
D315	Dist Design Svcs, North NV	$ 13,692	Excluded as one-time costs
D400	Energy Efficiency&Conservation	$ 120,953	
D401	DSM Reclass	$ 35,507,192	DSM
D402	Solar, Wind & Water Renewable	$ 48,610	
D403	Demand Resp & Dist Energy Resr	$ 34,155	
D404	Energy Audit and Education	$ 331,327	
D420	Major Accounts - NVE South	$ 1,166,557	
D425	VP Customer Relationship	$ 245,002	
D430	Cust Srvc-Training/Performance	$ 344,557	
D431	Call Centers - NVE South	$ 8,709,988	
D432	Call Centers - NVE North	$ 141,366	
D433	Final Bills	$ 1,227,934	
D434	Uncollectible Expense	$ 14,339,076	
D436	Collections - NVE South	$ 666,585	
D440	Credit & Billing - Manager	$ 215,771	
D441	Billing - NVE South	$ 6,919,262	
D442	Billing - NVE North	$ 5,089	Too Small
D444	Outlying Distr/Brnch NVE South	$ 592,233	
D445	Meter Reading - NVE North	$ (80)	Too Small
D446	Field Services - NVE North	$ 314	Too Small
D449	Advanced MDM Operations	$ 512,573	
D450	Meter Services & Applications	$ 805,853	
D452	Electric Meter Ops - NVE South	$ 24,705	
D453	Field Services - NVE South	$ 976,017	
D454	Meter Reading - NVE South	$ 790,049	
D455	Customer Information Systems	$ 361,134	
D460	Customer Programs & Services	$ 1,731,733	
D608	Corporate Common	$ 30,854,103	DSM
D613	Corporate Common 4	$ (88,479)	Too Small
D622	Remittance Processing	$ 157,548	
D701	VP Corporate Services	$ 496	Too Small
D730	Support Services South	$ 2,843	Too Small
D772	Supply Chn Matls - NVE South	$ 16	Too Small
D775	Procurement - Energy Delivery	$ 1,775	Too Small
D777	Corporate Communications	$ -	Too Small
D806	Telecommunications (Las Vegas)	$ 35	Too Small
D830	T&D and ERP Systems	$ 39,703	
D831	CIS Applications	$ 542,814	
D853	Legal	$ 35,778	Excluded as one-time costs
D865	Rates & Regulatory Affairs	$ 5,053	Too Small
D867	Customer Strategy & Programs	$ 682,374	
D883	Procurement - Corporate	$ -	Too Small

Exhibit RG-3

Customer Accounts Expenses FERC 901-904		Customer Services Expenses FERC 907-909	
901	Supervision	907	Supervision
902	Meter Reading	908	Customer Assistance
903	Customer Record/Collection	909	Advertising
904	Uncollectibles		

Sierra Pacific Power - 2015 Update to Customer Weighting Factor Study (updated from 2013 GRC filing)

	Customer Accounts Expenses FERC 901-904		Customer Services Expenses FERC 907-909		Total FERC 901-909	
Customer Class	Cost per Customer	Weight	Cost per Customer	Weight	Cost per Customer	Weight
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$25.91	1 00	$1.34	1.00	$27 24	1.00
Residential - Net Metered	$90.13	3.48	$39.38	29.47	$129.50	4.75
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$24.34	0 94	$4.02	3.01	$28 37	1.04
Small General Service - Net Metered	$87.89	3 39	$69.28	51.85	$157.17	5.77
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$32.63	1 26	$47.68	35.69	$80 31	2.95
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$1,030.65	39.78	$1,536.67	1150.14	$2,567.31	94 24
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$775.17	29.92	$4,918.83	3681.58	$5,694.00	209 01
Large Transmission Service - GS-4, GS-4-NG	$1,907.72	73.64	$13,396.21	10026.62	$15,303.93	561.75
Large Transmission Service - DO-GS-4	$2,719.80	104.98	$11,683.88	8745.00	$14,403.68	528.70
Overall Weight (n1)		1 032		3.55		1.16

2013 Rebuttal/Compliance CWF Study

	Customer Accounts Expenses FERC 901-904		Customer Services Expenses FERC 907-909		Total FERC 901-909	
Customer Class	Cost per Customer	Weight	Cost per Customer	Weight	Cost per Customer	Weight
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$27.00	1 00	$1.49	1.00	$28.49	1.00
Residential - Net Metered	N/A	N/A	N/A	N/A	N/A	N/A
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$24.63	0 91	$5.01	3.37	$29.65	1.04
Small General Service - Net Metered	N/A	N/A	N/A	N/A	N/A	N/A
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$31.11	1.15	$47.68	32.09	$78.78	2.77
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$1,023.92	37.92	$1,591.29	1071.14	$2,615.21	91 80
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$749.21	27.75	$4,754.08	3200.09	$5,503.29	193.19
Large Transmission Service - GS-4, GS-4-NG	$1,907.72	70.65	$13,396.21	9017.32	$15,303.92	537 23
Large Transmission Service - DO-GS-4	$2,719.79	100.73	$11,683.88	7864.71	$14,403.68	505.63
Overall Weight (n1)		1 018		3.47		1.15

Exhibit RG-3

Cost per Customer by Account

Account Number	901	902	903	904	905	907	908	909
Customer Class								
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$1.75	$0 00	$21.12	$3.03	$0.00	$0.58	$0.72	$0.03
Residential - Net Metered	$6 06	$0 00	$83.66	$0.41	$0.00	$36.78	$2.60	$0.00
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$1 57	$0 03	$20.53	$2.22	$0.00	$0.79	$2.91	$0.33
Small General Service - Net Metered	$6.13	$0 03	$80.25	$1.49	$0.00	$63.14	$6.14	$0.00
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$1 56	$0.13	$21.19	$9.75	$0.00	$27 07	$18.46	$2.16
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$12.59	$2.10	$631.46	$384.49	$0.00	$110.77	$1,398.46	$27.44
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$1 65	$1 53	$765 04	$6.95	$0.00	$351.19	$4,545.30	$22 33
Large Transmission Service - GS-4, GS-4-NG	$1 20	$2 01	$1,904.50	$0.00	$0.00	$1,773.51	$11,588 51	$34.18
Large Transmission Service - DO-GS-4	$0 86	$2 01	$2,716.92	$0.00	$0.00	$0.00	$11,649.70	$34.18

March 2015 Customer Count

Customer Class	Customers	% of Total
D-1, DM-1, OD-1-TOU, and ODM-1-TOU	285,665	85.68%
Residential - Net Metered	1,073	0.32%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	42,364	12.71%
Small General Service - Net Metered	221	0.07%
GS-2, OGS-2-TOU, and SSR 3	3,837	1.15%
GS-2-TOU, LSR 1, GS-2-TOU-NG	137	0.04%
GS-3, GS-3-NG, LSR LG, and WP	101	0.03%
GS-4, GS-4-NG	8	0.00%
DO-GS-4	3	0.00%
Total	333,409	100.00%

Services W/out D402		**Services for D402**		**Services w/D402 included above**
907	908	907	908	
$0.57	$0.72	$0.01	$0.00	
$0.57	$0.72	$36 21	$1.87	
$0.77	$2.91	$0.02	$0.00	
$0.77	$2.91	$62 38	$3.23	
$27.07	$18.46	$0.00	$0.00	
$110.77	$1,398.46	$0.00	$0.00	
$351.19	$4,545.30	$0.00	$0.00	
$1,773.51	$11,588 51	$0.00	$0.00	
$0.00	$11,649.70	$0.00	$0.00	
$1.09	$3.54	$0.00	$0.00	

Summary of Account Totals

Account Number	901	902	903	904	905	907	908	909
Customer Class								
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	501,191	66	6,033,421	866,127	-	163,565	206,470	9,023
Residential - Net Metered	6,504	0	89,766	437	-	-	-	-
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	66,412	1,145	869,869	93,846	-	32,480	123,114	13,911
Small General Service - Net Metered	1,354	6	17,734	328	-	-	-	-
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	5,973	509	81,308	37,401	-	103,851	70,827	8,271
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	1,725	288	86,510	52,675	-	15,175	191,588	3,760
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	167	155	77,269	702	-	35,470	459,076	2,256
Large Transmission Service - GS-4, GS-4-NG	10	16	15,236	-	-	14,188	92,708	273
Large Transmission Service - DO-GS-4	3	6	8,151	-	-	-	34,949	103
ACCOUNT TOTALS	583,339	2,191	7,279,264	1,051,517	-	364,729	1,178,733	37,596
		Customer Accounts Expense:		**8,916,312**		**Customer Services Expense:**		**1,581,058**

$10,497,370

Footnotes:

1) Customer Count is from the March 31, 2015 Financial Statements based on average number of customers.

2) DSM amortizations are booked to Account 908 (Customer Assistance Expense), and have been removed from this analysis pursuant to the order in NPC Docket No. 08-12002.

Exhibit RG-3

D264 Renewables

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$3,948.49	$478.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$3,948.49	$478.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$987.12	$119.50	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$987.12	$119.50	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$9,871.23	$1,195.00	$0.00	$0.00	$11,066.23

Responder:
K. Johnson

D364 E/G Dispatch - Northern NV

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$113,932.51	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$113,932.51	$0.00	$0.00	$113,932.51

Responder:
Ken Sareem

D373 Yerington

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Responder:
Mark Newman

Exhibit RG-3

197615.36

D375	Hawthorne		37052.88							D375
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$196,875.87	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	79.70%
Residential - Net Metered			$739.49							0.30%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$36,860.59	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	14.92%
Small General Service - Net Metered			$192.29							0.08%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$7,410.58	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	3.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$2,470.19	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$2,470.19	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$0.00	$0.00	$247,019.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$247,019.20

Responder:
Mark Newman
2015 Update - Used equal $ per customer based on related response to D394 (Bob Rice)
for same rating as Residential and Small General Service.

D376	Tonopah									D376
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Responder:
Mark Newman

37789.619

D380	Inspection and Coordination		10257.1823							D380
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$37,648.21	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	69.74%
Residential - Net Metered			$141.41							0.26%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$10,203.95	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	18.90%
Small General Service - Net Metered			$53.23							0.10%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$2,159.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	4.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$2,159.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	4.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$1,619.56	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	3.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$0.00	$0.00	$53,985.17	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$53,985.17

Responder:
Mark Newman
2015 Update - Used equal $ per customer based on related response to D394 (Bob Rice)
for same rating as Residential and Small General Service.

Exhibit RG-3

D381	North Tahoe and Portola									D381	
Account Number	901	902	903	904	905	907	908	909	910		
Customer Class											
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!	
										#DIV/0!	
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!	
										#DIV/0!	
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!	
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!	
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!	
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!	
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$0.00

Responder:
Phil Carillo

8913.953666

D394	Winnemucca Ops		1934.456812							D394	
Account Number	901	902	903	904	905	907	908	909	910		
Customer Class											
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$8,880.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		76.13%
Residential - Net Metered			$33.36								0.29%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$1,924.42	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		16.50%
Small General Service - Net Metered			$10.04								0.09%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$349.86	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		3.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$233.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		2.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$116.62	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		1.00%
DOS-GS-4	$0.00	$0.00	$116.62	$0.00	$0.00	$0.00	$0.00	$0.00			1.00%
ACCOUNT TOTALS	$0.00	$0.00	$11,664.76	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$11,664.76

Responder:
J. Kracaw and A. Zakowski
2015 Update: Used equal $ per customer for same rating as Residential and Small General Service. (Bob Rice)

D400	Energy Efficiency & Conservation									D400	
Account Number	901	902	903	904	905	907	908	909	910		
Customer Class											
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$37,476.79	$41,099.46	$0.00	$0.00	#DIV/0!	
										#DIV/0!	
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$6,662.54	$7,306.57	$0.00	$0.00	#DIV/0!	
										#DIV/0!	
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$24,151.71	$26,486.32	$0.00	$0.00	#DIV/0!	
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$3,331.27	$3,653.29	$0.00	$0.00	#DIV/0!	
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$8,328.18	$9,133.21	$0.00	$0.00	#DIV/0!	
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$3,331.27	$3,653.29	$0.00	$0.00	#DIV/0!	
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!	
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$83,281.75	$91,332.13	$0.00	$0.00		$174,613.88

Responder:
K. McMaster

Exhibit RG-3

D402 — Solar, Wind & Water Renewable

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										D402
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
						$0.00	$0.00			#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
						$0.00	$0.00			#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Responder:
K. Johnson

			Allocation w/ Net Metering		Cost per Customer	
			907	908	907	908
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU			$2,480.50	$128.44	$ 0.0087	$ 0.0004
			$38,848.12	$2,011.59	$ 36.2051	$ 1.8747
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.			$879.09	$45.52	$ 0.0208	$ 0.0011
			$13,785.54	$713.83	$ 62.3780	$ 3.2300
Med. General Service - GS-2, OGS-2-TOU, and SSR 3			$0.00	$0.00	$ -	$ -
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG			$0.00	$0.00	$ -	$ -
Large General Service - GS-3, GS-3-NG, LSR LG, and WP			$0.00	$0.00	$ -	$ -
Large Transmission Service - GS-4, GS-4-NG			$0.00	$0.00	$ -	$ -
DOS-GS-4			$0.00	$0.00	$ -	$ -
			$55,993.26	$2,899.38		

D403 — Demand Resp & Dist Energy Resr

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										D403
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$155.20	$54,018.77	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$155.20	$54,018.77	$0.00	$0.00	$54,173.97

Responder:
M. Fernandez

Exhibit RG-3

D404 Energy Audit and Education

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										D404
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$6,279.68	$9,023.13	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$9,681.17	$13,910.66	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$5,756.37	$8,271.20	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,616.53	$3,759.64	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,569.92	$2,255.78	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$190.29	$273.43	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$71.36	$102.54		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$26,165.32	$37,596.37	$0.00	$63,761.69

Responder:
M. Fernandez

D405 Economic Development

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										D405
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Responder:
B. Woodring

D421 Major Accounts - SPPC

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										D421
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$5,763.50	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$21,613.14	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$144,087.60	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$397,681.78	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$78,527.74	$0.00	$0.00	#DIV/0!
DOS-GS-4							$29,537.96			#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$677,211.72	$0.00	$0.00	$677,211.72

Responder:
C. Booth

Exhibit RG-3

D425 Customer Service

Account Number	901		903		905	907	908	909	910	D425
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$62,934.82	0.0%	$19,011.61	0.0%	$0.00	$0.00	$0.00	$0.00	$0.00	97.20%
Residential - Net Metered	$517.98	0.0%	$185.81							0.95%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$1,165.46	0.0%	$352.07	0.0%	$0.00	$0.00	$0.00	$0.00	$0.00	1.80%
Small General Service - Net Metered	$129.50	0.0%	$9.78							0.05%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$64,747.76	$0.00	$19,559.27	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$84,307.03

Responder:
Bruce Bullock
2015 Update: Used 1% allocation to net metering split 95/5 between Res and GS. (Denice Tsuda) $195.59

D430 Cust-Srvc - Training/Performance

Account Number	901	902	903	904	905	907	908	909	910	D430
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$30,413.85	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	80.00%
Residential - Net Metered	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$5,702.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	15.00%
Small General Service - Net Metered	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$1,140.52	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	3.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$760.35	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	2.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$0.00	$0.00	$38,017.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$38,017.31

Responder:
Evelyn Hollins
2015 Update: Zero allocation of expenses to Net Metering. (Gretchen Djukanovich)

D432 Call Center - Reno

Account Number	901	902	903	904	905	907	908	909	910	D432
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$163,427.01	$0.00	$1,586,136.39	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	86.30%
Residential - Net Metered	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$23,671.35	$0.00	$229,741.66	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	12.50%
Small General Service - Net Metered	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$2,272.45	$0.00	$22,055.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.20%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$189,370.81	$0.00	$1,837,933.24	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,027,304.05

Responder:
G. Djukanovich
2015 Update: Zero allocation of expenses to Net Metering. (Gretchen Djukanovich)

Exhibit RG-3

312288.8138

D433 | Final Bills NPC/SPPC | 33938.19992 | D433

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$26,348.92	$0.00	$312,131.38	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	82.37%
Residential - Net Metered			$157.44							0.04%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$2,863.49	$0.00	$33,819.91	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	8.92%
Small General Service - Net Metered			$118.29							0.03%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$1,137.22	$0.00	$13,478.34	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	3.56%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$1,601.65	$0.00	$18,982.83	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	5.01%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$21.35	$0.00	$253.03	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.07%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$31,972.62	$0.00	$378,941.21	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$410,913.83

Responder:
Linda Ellsworth
2015 Update: Used 3 year bad debt percentage with net metering seperately identified.

D434 | Uncollectible Expense NPC/SPPC | D434

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$866,413.01	$0.00	$0.00	$0.00	$0.00	$0.00	82.37%
				$437.01						0.04%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$93,877.16	$0.00	$0.00	$0.00	$0.00	$0.00	8.92%
				$328.36						0.03%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$37,413.13	$0.00	$0.00	$0.00	$0.00	$0.00	3.56%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$52,692.45	$0.00	$0.00	$0.00	$0.00	$0.00	5.01%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$702.35	$0.00	$0.00	$0.00	$0.00	$0.00	0.07%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$1,051,863.47	$0.00	$0.00	$0.00	$0.00	$0.00	$1,051,863.47

Responder:
Linda Ellsworth
2015 Update: Used 3 year bad debt expense with Net Metering separately identified.

D440 | Credit and Billing | D440

Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$55,684.31	$0.00	$46,093.05	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	83.60%
Residential - Net Metered			$1,493.40							2.71%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$8,033.57	$0.00	$6,559.13	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	11.90%
Small General Service - Net Metered			$306.16							0.56%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$747.51	$0.00	$638.81	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.16%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$25.53	$0.00	$21.82	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$26.41	$0.00	$22.57	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large Transmission Service - GS-4, GS-4-NG	$2.29	$0.00	$1.96	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4	$0.53		$0.45	$0.00						0.00%
ACCOUNT TOTALS	$64,520.15	$0.00	$55,137.33	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$119,657.48

Responder:
D. Tsuda and S. Massic

2060

2015 Update: 1 director allocating 1% of time to net metereing, $2,060 total, split based on NEM customer allocation shown in D442. (Denice Tsuda)

Exhibit RG-3

D442	Billing Reno									D442
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$107,829.29	$0.00	$1,368,583.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	79.07%
Residential - Net Metered	$5,917.35		$75,103.74							4.34%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$19,520.89	$0.00	$247,761.66	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	14.31%
Small General Service - Net Metered	$1,213.11		$15,396.96							0.89%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$1,733.77	$0.00	$22,005.26	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.27%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$52.72	$0.00	$669.18	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$94.26	$0.00	$1,196.39	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.07%
Large Transmission Service - GS-4, GS-4-NG	$4.71	$0.00	$59.74	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DOS-GS-4	$1.09		$13.79							0.00%
ACCOUNT TOTALS	$136,367.19	$0.00	$1,730,790.27	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,867,157.46

Responder:
W. Crane and S. Massic

	901	903
	$111,761.00	$8,162.43	$103,598.57

2015 Update: 1.25 CSRs allocated specifically to Net Metering, $103,142 total plus $8,619 supervisor expense, split based on NEM customer counts. (Denice Tsuda)

SPPC		
Res NEM	1,078	72.5%
GS1/IS1/IS2/ NEM	221	14.9%
GS2	181	12.2%
GS3	7	0.5%
	1,487	

D445	Meter Reading - NVE North									D445
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Responder:
S. Ward and S, Massic

$1,174,488.05
$160,157.46

D446	Field Services NVE North									D446
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$64,582.52	$0.00	$1,170,093.01	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	87.67%
Residential - Net Metered			$4,395.04							0.33%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$8,806.71	$0.00	$159,326.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	11.94%
Small General Service - Net Metered			$831.16							0.06%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$73,389.23	$0.00	$1,334,645.51	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,408,034.74

Responder:
P. Conant
2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class (Jim Christensen)
Although, currently expenses are more heavily weighted towards net metering. Changes will be effective in about 6 months that would make them equal.

Exhibit RG-3

D447	Outlying Dst/Branch - NVE North									D447
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Responder:
G. Djukanovich

			242692.6144	286898.95	0.845916705	0.972804211				
D449	Advanced MDM Operations		18465.7424	42618.15	0.433283528	0.498276058				D449
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$241,648.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	91.60%
Residential - Net Metered			$1,043.82							0.40%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$18,355.62	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	6.96%
Small General Service - Net Metered			$110.12							0.04%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$2,637.96	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$0.00	$0.00	$263,796.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$263,796.32

Responder:
E. Brannon
2015 Update: Expenses are approximately 15% higher per customer for Net Metered Customers (Dan Gerome)

			435839.9244							
D450	Meter Services & Applications		27523.80556							D450
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$2,010.90	$0.00	$434,208.97	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	93.71%
Residential - Net Metered			$1,630.95							0.35%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$126.99	$0.00	$27,380.97	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	5.91%
Small General Service - Net Metered			$142.84							0.03%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$2,137.89	$0.00	$463,363.73	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$465,501.62

Responder:
J. Christensen
2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class (Jim Christensen)

Exhibit RG-3

		10.4655	66.4056	390.7182						
D451		181.402	1151.0304	6772.4488	Electric Meter Ops					D451
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$10.43	$66.16	$260.48	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	2.02%
Residential - Net Metered	$0.04	$0.25	$130.24							1.01%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$180.46	$1,145.06	$6,737.30	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	52.25%
Small General Service - Net Metered	$0.94	$5.97	$35.15							0.27%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$80.24	$509.11	$2,995.51	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	23.23%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$45.35	$287.76	$1,693.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	13.13%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$24.42	$154.95	$911.68	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	7.07%
Large Transmission Service - GS-4, GS-4-NG	$2.54	$16.10	$94.72	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.73%
Large Transmission Service - DO-GS-4	$0.95	$6.04	$35.52							0.28%
ACCOUNT TOTALS	$345.36	$2,191.38	$12,893.70	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$15,430.45

Responder:

Alberto Godoy

2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class in 901 and 902, 903 expenses are allocated 1/3 toward Net Metered (Jim Christensen)

D455	Customer Information Systems									D455
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$9.24	$0.00	$136,632.93	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	85.61%
Residential - Net Metered			$617.81							0.39%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$1.07	$0.00	$15,891.76	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	9.96%
Small General Service - Net Metered			$67.63							0.04%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.11	$0.00	$1,595.94	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.11	$0.00	$1,595.94	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.11	$0.00	$1,595.94	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.00%
Large Transmission Service - GS-4, GS-4-NG	$0.09	$0.00	$1,296.70	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.81%
DO-GS-4	$0.02		$299.24							0.19%
ACCOUNT TOTALS	$10.74	$0.00	$159,593.88	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$159,604.62

Responder:

D. Gerome

2015 Update: Expenses are approximately 15% higher per customer for Net Metered Customers (Dan Gerome)

D460	Sokunta Henry									D460
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$307,771.58	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	86.00%
Residential - Net Metered			$3,578.74							1.00%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$46,165.74	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	12.90%
Small General Service - Net Metered			$357.87							0.10%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$0.00	$0.00	$357,873.93	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$357,873.93

Responder:

S. Henry

2015 Update: Allocation of expenses by percentage 86% Res, 1% Res NEM, 12.90% GS, and 0.10% GS NEM (Schad Koon)

Exhibit RG-3

D608	Corporate Common									D608
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	-$285.56	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
				-$0.14						#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	-$30.94	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
				-$0.11						#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	-$12.33	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	-$17.37	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	-$0.23	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DO-GS-4			$0.00	$0.00						#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	-$346.68	$0.00	$0.00	$0.00	$0.00	$0.00	-$346.68

Responder:
S. Arulanantham

110253.0012

D622	Remittance Processing		15906.24439							D622
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$109,840.42	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	85.98%
Residential - Net Metered			$412.58							0.32%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$15,823.70	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	12.39%
Small General Service - Net Metered			$82.55							0.06%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$1,480.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.16%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$50.59	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$52.25	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$4.57	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4			$1.05							0.00%
ACCOUNT TOTALS	$0.00	$0.00	$127,747.79	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$127,747.79

Responder:
Jerry Hubbard
2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class (Jeni Root)

$18,258.51

D740	Corporate Security		2028.723							D740
Account Number	901	902	903	904	905	907	908	909	910	901
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$18,190.18	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	89.66%
Residential - Net Metered	$68.33									0.34%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$2,018.19	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	9.95%
Small General Service - Net Metered	$10.53									0.05%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DO-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$20,287.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$20,287.23

Responder:
M. Crosby
2015 Update: Equal weighting per customer as OAS. (Aaron Schaar)

Exhibit RG-3

26963.36555

D820	Infrastructure Services - IT&T		3890.002709							D820
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$26,862.47	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	85.98%
			$100.90							0.32%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$3,869.82	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	12.39%
			$20.19							0.06%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$361.96	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.16%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$12.36	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$12.79	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large Transmission Service - GS-4, GS-4-NG, DO-GS-4	$0.00	$0.00	$1.11	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		0.00%
ACCOUNT TOTALS	$0.00	$0.00	$31,241.58	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$31,241.58

Responder:
W. Olsen
2015 Update: Going forward, expenses will be equally allocated for net metering with otherwise applicable class (Bill Olsen)

D831	CIS Applications									D831
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$163.16	$0.00	$327.81	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	85.92%
Residential - Net Metered	$0.74		$1.48							0.39%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$23.54	$0.00	$47.31	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	12.40%
Small General Service - Net Metered	$0.10		$0.20							0.05%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$2.20	$0.00	$4.42	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	1.16%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.08	$0.00	$0.15	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.08	$0.00	$0.16	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.04%
Large Transmission Service - GS-4, GS-4-NG	$0.01	$0.00	$0.02	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Large Transmission Service - DO-GS-4	$0.00		$0.00							0.00%
ACCOUNT TOTALS	$189.90	$0.00	$381.54	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$571.44

Responder:
L. DeCarlo
2015 Update: Expenses are approximately 15% higher per customer for Net Metered Customers (Dan Gerome)

D865	Rates and Regulatory Affairs									D865
Account Number	901	902	903	904	905	907	908	909	910	
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$23,410.83	$0.00	$0.00	0.00%
Residential - Net Metered	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$3,344.40	$0.00	$0.00	$0.00	$43,477.26	$0.00	$0.00	2.16%
Small General Service - Net Metered	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$3,344.40	$0.00	$0.00	$0.00	$10,033.21	$0.00	$0.00	2.16%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$57,744.32	$0.00	$0.00	$0.00	$40,127.41	$0.00	$0.00	37.33%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$68,900.88	$0.00	$0.00	$0.00	$47,880.27	$0.00	$0.00	44.54%
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$13,660.61	$0.00	$0.00	$0.00	$9,492.96	$0.00	$0.00	8.83%
DOS-GS-4			$7,684.09				$5,339.79			4.97%
ACCOUNT TOTALS	$0.00	$0.00	$154,678.71	$0.00	$0.00	$0.00	$179,761.74	$0.00	$0.00	$334,440.45

Responder:
Debby Degn and Jane Sevedge
2015 Update: No allocation to NEM customers (Janet Wells)

Exhibit RG-3

D867 Customer Strategy & Programs

Account Number	901	902	903	904	905	907	908	909	910	D867
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$122,139.46	$9,493.02	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$21,713.68	$1,687.65	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$78,712.10	$6,117.73	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$10,856.84	$843.82	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$27,142.10	$2,109.56	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$10,856.84	$843.82	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$271,421.02	$21,095.61	$0.00	$0.00	$292,516.63

Responder:
K. McMaster

D882 Community Relations Reno

Account Number	901	902	903	904	905	907	908	909	910	D882
Customer Class										
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$11,776.56	$0.00	$0.00	#DIV/0!
										#DIV/0!
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$700.99	$0.00	$0.00	#DIV/0!
										#DIV/0!
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$700.99	$0.00	$0.00	#DIV/0!
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$140.20	$0.00	$0.00	#DIV/0!
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$700.99	$0.00	$0.00	#DIV/0!
Large Transmission Service - GS-4, GS-4-NG	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	#DIV/0!
DOS-GS-4	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		#DIV/0!
ACCOUNT TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$14,019.71	$0.00	$0.00	$14,019.71

Responder:
K. Ross

GRAND TOTAL - By Account:

Account Number	901	902	903	904	905	907	908	909	910	
Residential - D-1, DM-1, OD-1-TOU, and ODM-1-TOU	$501,190.78	$66.16	$6,033,420.95	$866,127.45	$0.00	$163,564.74	$206,470.06	$9,023.13	$0.00	82.89%
Residential - Net Metered	$6,504.43	$0.25	$89,766.21	$436.87	$0.00	$0.00	$0.00	$0.00	$0.00	1.23%
Small General Service - GS-1, OGS-1-TOU, SSR 2, Irr., and Ltng.	$66,411.73	$1,145.06	$869,868.90	$93,846.22	$0.00	$32,479.91	$123,113.91	$13,910.66	$0.00	11.95%
Small General Service - Net Metered	$1,354.18	$5.97	$17,734.45	$328.25	$0.00	$0.00	$0.00	$0.00	$0.00	0.24%
Med. General Service - GS-2, OGS-2-TOU, and SSR 3	$5,973.49	$509.11	$81,308.39	$37,400.80	$0.00	$103,850.93	$70,827.25	$8,271.20	$0.00	1.12%
Med. General Service -Time of Use- GS-2-TOU, LSR 1, GS-2-TOU-NG	$1,725.43	$287.76	$86,510.10	$52,675.08	$0.00	$15,175.23	$191,588.35	$3,759.64	$0.00	1.19%
Large General Service - GS-3, GS-3-NG, LSR LG, and WP	$166.62	$154.95	$77,268.66	$702.12	$0.00	$35,470.28	$459,075.73	$2,255.78	$0.00	1.06%
Large Transmission Service - GS-4, GS-4-NG	$9.63	$16.10	$15,236.03	$0.00	$0.00	$14,188.11	$92,708.11	$273.43	$0.00	0.21%
Large Transmission Service - DOS-GS-4	$2.59	$6.04	$8,150.76	$0.00	$0.00	$0.00	$34,949.11	$102.54	$0.00	0.11%
ACCOUNT TOTALS	$583,338.88	$2,191.38	$7,279,264.46	$1,051,516.79	$0.00	$364,729.20	$1,178,732.51	$37,596.37	$0.00	

$10,497,369.60

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 10/5/2015

REQUEST NO.: VS 4-01

REQUESTER: **RESPONDER:** Schaar, Aaron

REQUEST:

Referring to NV Energy's response to VS 1-26 and pages 62 of the Narrative in Section 6 (e.g., page 64 of 187, Volume 2 of the NPC Application), please indicate the cell or cells in the CWFS workpapers that records the $241,909 (Nevada Power) and $111,761 (Sierra Pacific) for "[t]he total expense related to those activities specifically identified as NEM." If applicable, please specify the breakdown of these costs by FERC account number and Department. Please answer separately for
Nevada Power and Sierra Pacific.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

On the tab "$ by Class and Account" in the file supplied for VS 1-26, *FINAL_NEM_Revised_2014_NPC_Electric_CWF_Study.xlsx,* the referenced expense for Nevada Power of $241,909 can be found in cell C471. The costs are all for Department D441 (Billing - NVE South) and for FERC accounts 901 and 903 in the amounts of $3,543.86 and $238,365.14 respectively.

Similarly, the expenses referenced for Sierra Pacific in the amount of $111,761 can be found in cell E388 on the tab "$ by Class and Account" of the VS 1-26 file *FINAL_NEM_Revised_2013_SPPC_Electric_CWF_Study.xlsx*. The expenses are all for Department D442 (Billing – NVE North) and are allocated between FERC accounts 901 and 903 in the amounts of $8,162.43 and $103,598.57 respectively.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 10/5/2015

REQUEST NO.: VS 4-03

REQUESTER: **RESPONDER:** Tsuda, Denice

REQUEST:

Referring to the paragraph beginning at the end of page 62 of the Narrative (page 64 of 187, Volume 2 of the NPC Application), please provide the number of full-time equivalent customer service representatives ("FTE CSR") that are dedicated to non-NEM customers. Please answer separately for Nevada Power and Sierra Pacific.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

At Nevada Power, ten full time equivalent Customer Service Representatives in Billing work on non-NEM accounts.

At Sierra Pacific Power Company, seven full time equivalent Customer Service Representatives in Billing work on non-NEM accounts.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 10/5/2015

REQUEST NO.: VS 4-07

REQUESTER: **RESPONDER:** Aaron Schaar

REQUEST:

Refer to the following statement on page 64 of the Narrative (page 66 of 187, Volume 2 of the NPC Application): "Based on correspondence with the head of that department, NEM issues have accounted for nearly 12 percent of the total complaints statewide. However, there are solutions presently being implemented that are expected to significantly reduce these complaints. Reflecting those solutions going forward, the allocation at Nevada Power of the department expenses for Residential NEM was estimated at 1.5 percent of the total expenses and the General Service NEM allocation was estimated at 0.25 percent. The allocation of those expenses at Sierra was estimated to be 1.0 percent and 0.10 percent for Residential and General Service NEM groupings respectively." Please answer the following for Nevada Power and Sierra Pacific.

a. Please provide all data, analysis and any other documentation to support the estimated allocation of the department expenses going forward.

b. Please indicate the cell or cells in the CWFS workpapers (produced in response to VS 1-26) in which the Company has recorded these expenses. If applicable, please specify the breakdown of these costs by FERC account number and Department.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

a. The data to support the departmental expenses (D460, Customer Programs and Services) for Net Metering was provided in response to data request VS 2-30. Although that data suggests a much higher allocation of the departmental expenses to Net Metering (12% or higher), the department head anticipated that, based on trends identified at the time of the filing, expenses would be lower going forward as solutions were implemented to minimize the recurrence of common complaints. This assumption recognized that additional resources had been added to the metering department to address inspections and installations, and process improvement initiatives were being applied to the application

processes. Thus improvement in this specific area was expected to continue, resulting in a lower incidence of complaints related to Net Metering.

b. The CWFS workpapers provided in response to VS 1-26 show the breakdown of expenses for this department for Nevada Power in cells B684 through B696 (FERC 901) and cells D684 though D696 (FERC 903) in the file *Final_NEM_Revised_2014_NPC_Electric_CWF_Study.xlsx*. The breakdown for Sierra Pacific is shown in cells D514 through D523 (FERC 903) in the file *Final_NEM_Revised_2013_SPPC_Electric_CWF_Study.xlsx*.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 10/5/2015

REQUEST NO.: VS 4-09

REQUESTER: **RESPONDER:** Tim Pollard

REQUEST:

Refer to pages 24-25 of the Narrative for NPC (pages 26-27 of 187, Volume 2 of the NPC Application), which states that for the MCS, NPC used customer billing determinants from the twelve-month period ending May 2014, and solar generation data and load shapes from the twelve-month period ending May 2015.

a. Please explain how, if at all, NEM customer billing determinants from the 12-month period ending in May 2015 would differ from NEM customer billing determinants for the 12-month period ending in May 2014.

b. Please provide the total number of NEM customers that took service on Nevada Power's system each month from June 2013 to May 2014, and these customers' cumulative distributed generation capacity (kW-AC).

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

a) As a general matter, to the extent that the NEM population differed from the twelve months ending May 2015 from the twelve month period ending May 2014 the billing determinants would reflect any differences in number of customers and energy usage between the two periods. However, billing determinants for the twelve month period ending May 2014 have not been developed for NEM classes and are therefore unavailable for comparison purposes.

b) This information was already provided to TASC in the response to VS 1-6. The file contains all customers included in the population of NEM customers identified as of March 31, 2015 for use in the load shape analysis. Included in that file is the meter set date and NEM system capacity information. The meter set date provides the month and year the net meter was installed. In some cases, validation of the data kept in the date field over time resulted in some that do not exactly match the date the meter was set. In those cases, the date would reflect a date in which the record was updated with a meter set confirmation.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 10/5/2015

REQUEST NO.: VS 4-10

REQUESTER: **RESPONDER:** Tim Pollard

REQUEST:

Referring to NVE's response to Vote Solar data request no. VS 2-21.

a. Please explain how, if at all, Sierra Pacific NEM customer billing determinants from the 12 month period ending in May 2015 would differ from NEM customer billing determinants for the 12 month period ending in March 2015.

b. Please provide the total number of NEM customers that took service on Sierra Pacific's system on April 2014, May 2014 and April 2015, and these customers' cumulative distributed generation capacity (kW-AC).

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

a) As a general matter, To the extent that the NEM population differed from the twelve months ending May 2015 from the twelve month period ending March 2015 the billing determinants would reflect any differences in number of customers and energy usage between the two periods. Billing determinants for the twelve month period ending March 2015 have not been developed for NEM classes and are therefore unavailable for comparison purposes.

b) This information has already been provided to Vote Solar in the response to VS 1-4. The file contains all customers included in the population of NEM customers identified by March 31, 2015 for use in the load shape analysis. Included in that file is the meter set date and NEM system capacity information. The meter set date provides the month and year the net meter was installed. In some cases, validation of the data kept in the date field over time resulted in some that do not exactly match the date the meter was set. In those cases, the date would reflect a date in which the record was updated with a meter set confirmation.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 9/18/2015

REQUEST NO.: TASC 08

REQUESTER: **RESPONDER:** Murray, Jesse

REQUEST:

Request: Please provide:

a. The number and capacity (in AC or DC MW) of DG PV systems added to the NPC system in each year of the years 2010-2015, by customer class and rate schedule.

b. NPC's forecast of the number and capacity (in AC or DC MW) of DG PV systems that will be added to the NPC system in 2016, by customer class and rate schedule if available, assuming that NPC's proposal for NEM2 is adopted.

c. The current forecast for DG PV additions to the NPC system in 2016 and subsequent years (in AC or DC MW), as forecasted in NPC's most recent Integrated Resource Plan.

d. Please provide the responses to Parts (a) - (c) in terms of incentivized and non-incentivized systems.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

This data is based on customer type as identified in our distributed generation management (DGIM) system, not by rate class. To provide customers by rate class, an extensive querying procedure would have to be completed in our billing system and compared to our DGIM system. This work cannot be achieved in the given timeframe. The rate class data included in the original filing was provided through March 31, 2015. This updated data is provided as of September 23, 2015, incorporating those additional projects installed between March 30 and September 23, 2015.
A)

NPC - Number of Projects												
	2010		2011		2012		2013		2014		2015	
Customer Category	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized
Business	2	1	16	7	5	8	2	5	4	6	7	2
Public Building	11	1	85	0	14	2	9	1	20	0	9	0
Residential	106	43	192	83	77	312	198	430	687	1186	6268	1126
School	10	0	59	1	22	0	34	1	36	0	1	0

NPC - Capacity Installed MW AC												
	2010		2011		2012		2013		2014		2015	
Customer Category	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized	Incentivized	Non-Incentivized
Business	0.03	0.94	0.48	1.18	0.12	0.15	0.09	0.12	0.13	0.25	2.57	0.23
Public Building	0.30	0.01	4.92	0.00	0.60	0.03	0.37	0.24	1.45	0.00	0.59	0.00
Residential	0.61	0.29	1.12	0.82	0.22	1.56	1.01	2.71	4.14	7.19	37.07	6.91
School	0.49	0.00	4.13	0.03	2.09	0.00	2.38	0.03	3.86	0.00	0.35	0.00

B) Nevada Power has not yet prepared a forecast to include the assumption that its proposed rates under NEM 2 are adopted.

C) This data was previously provided for docket 15-07004.

NPC Forecast NEM Capacity Additions (MW AC)		
Year	Incentivized	Non-Incentivized
2016	58.3	10.0
2017	30.6	5.0
2018	0.0	2.0
2019	0.0	2.0
2020	0.0	2.0
2021	0.0	2.0
2022	0.0	2.0
2023	0.0	2.0
2024	0.0	2.0
2025	0.0	2.0
2026	0.0	2.0
2027	0.0	2.0
2028	0.0	2.0
2029	0.0	2.0
2030	0.0	2.0
2031	0.0	2.0
2032	0.0	2.0
2033	0.0	2.0
2034	0.0	2.0
2035	0.0	2.0

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 10/5/2015

REQUEST NO.: VS 4-11

REQUESTER: **RESPONDER:** Kocour, Rob

REQUEST:

In Section 5 of the Narrative (pages 62-63 of 187, Volume 2 of NPC Application), the Company explained that MCS data is based on production cost modeling performed for the 2015 NPC IRP (Docket No.15-07004) and that this reflects an update from the production cost modeling used in the last rate cases. Please provide the following information, separately for NPC and SPPC. (In this request, the production cost modeling underlying the current application in these NEM dockets is referred to as PROMOD-IRP and the production cost modeling underlying the last rate case for each utility is referred to as PROMOD-Rate Case).
For Nevada Power and Sierra Pacific:

a. Please provide the month and year in which PROMOD-IRP and PROMOD-Rate Case were completed.
b. Please provide the time period for which hourly load data were modeled in PROMOD-IRP and PROMOD-Rate Case.
c. Please provide the hourly load forecasts underlying PROMODIRP and PROMOD-Rate Case.
d. Please indicate the time period for which fuel and purchased power prices were modeled in PROMOD-IRP and PROMODRate Case.
e. Please provide the fuel and purchased power price forecasts underlying PROMOD-IRP and PROMOD-Rate Case.
f. Please describe the development of the LOLP analysis underlying PROMOD-IRP and PROMOD-Rate Case and state whether the resources removed to create the LOLP analysis differ between the two production cost models.
g. Please describe any updates to generator characteristics that the Company completed for PROMOD-IRP from PROMOD-Rate Case.
h. Please provide the LOLP and POP analysis from both PROMOD-IRP and PROMOD-Rate Case in excel format with formulas and link intact.
i. Please provide all outputs from PROMOD-Rate Case for each utility necessary to modify the current MCS to be based on PROMOD-Rate Case.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENTS CONFIDENTIAL (yes or no): Yes, 5 of 17

Market Fundamentals SPPC PROMOD-Rates – CONFIDENTIAL.xlsx
Market Fundamentals NPC PROMOD-Rates – CONFIDENTIAL.xlsx
Market Fundamentals NPC_SPPC PROMOD-IRP – CONFIDENTIAL.xlsx
GRC-NPC MEC – CONFIDENTIAL.xlsx
GRC-SPPC MEC – CONFIDENTIAL.xlsx

Note: The confidential attachment(s) will not be available on the Company's website.

JUSTIFICATION FOR CLAIM OF CONFIDENTIALITY:
Fuel, purchased power, and marginal price forecasts are considered commercial sensitive information, the public disclosure of which would harm NV Energy's ability to negotiate favorable prices for fuel and purchased power.

TOTAL NUMBER OF ATTACHMENTS: 5 Confidential, 12 Non-Confidential

RESPONSE:

a. PROMOD-IRP analysis was completed in May 2015; PROMOD-Rate Case analysis for NPC was completed in April 2014. PROMOD-Rate Case analysis for SPPC was completed June 2013.

b. PROMOD-IRP analysis modeled loads for the period 2016-2045; PROMOD-Rate Case analysis for NPC modeled loads for the period 2015-2044; PROMOD-Rate Case analysis for SPPC modeled loads for the period 2014-2043.

c. Please see the attached files:
    1. GRC – NPC hourly loads.xlsx
    2. GRC – SPPC hourly loads.xlsx
    3. NEM – NPC hourly base loads.xlsx
    4. NEM – SPPC hourly base loads.xlsx

d. PROMOD-IRP analysis modeled fuel and purchased power pricing for each year of the period analyzed. Please refer to the response to part b above for those periods.

e. Please see the attached files:
    1. Market Fundamentals SPPC PROMOD-Rates – CONFIDENTIAL.xlsx
    2. Market Fundamentals NPC PROMOD-Rates – CONFIDENTIAL.xlsx
    3. Market Fundamentals NPC_SPPC PROMOD-IRP – CONFIDENTIAL.xlsx

f. A brief description of the development of the LOLP analysis is contained the narrative, volume 2, section 5, page 63 of 187. A detailed list of steps is given below.

    The PROMOD input file (either -IRP or -Rate Case) was changed to allow LOLP calculation. Steps below use NPC as an example – matching steps were made for SPPC analysis
    1. Change SPPC loads to be very small (about 300 MWh/yr) – program requires *some* level of load in SPPC area to solve.
    2. Remove SPPC generating resources
    3. Delete market transactions
    4. Delete seasonal contracts
    5. Locate all NPC renewables in SPPC area to NPC area
    6. Remove ON Line
    7. Run probabilistic PROMOD simulation to calculate LOLP for NPC

g. Updates to existing generator characteristics are generally not needed after initial set-up. For NPC, the change from the PROMOD-Rate Case to the PROMOD-IRP included the assumption of ownership of the remaining portion of the Silverhawk plant and an update of fuel, fixed O&M and variable O&M costs. For SPPC, the change from the PROMOD-Rate Case to the PROMOD-IRP included an update of fuel, fixed O&M and variable O&M costs.

h. Please see the attached files:
   1. GRC – LOLP-North.xlsx
   2. GRC – LOLP-South.xlsx
   3. GRC-North POP.xlsx
   4. GRC-South POP.xlsx
   5. NEM – LOLP-North.xlsx
   6. NEM – LOLP-South.xlsx
   7. NEM-North POP.xlsx
   8. NEM-South POP.xlsx

i. Please see the attached files:
   1. GRC–NPC MEC.xlsx
   2. GRC–SPPC MEC.xlsx

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041 **REQUEST DATE:** 8/24/2015

REQUEST NO.: VS 1-46

REQUESTER: **RESPONDER:** Laura Walsh

REQUEST:

VS 1-46. Referring to Section II.K. of the Narrative (page 25 of 175, Volume 2 of the SPPC Application), please define "high levels" as the term is used in the first sentence of this subsection.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

High level is a relative term. In this context, it refers to the amount of DG production on a given distribution line in relation to the capacity of that line and the loads on that line.

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041 **REQUEST DATE:** 8/24/2015

REQUEST NO.: VS 1-47

REQUESTER: **RESPONDER:** Walsh, Laura

REQUEST:

Referring to Section II.K. of the Narrative (page 25 of 175, Volume 2 of the SPPC Application), please identify the "other utilities" referenced in the second sentence of this subsection. Please also identify all "new impacts" as the term is used in the same sentence.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

Utilities across the country have recognized the impacts associated with DG on distribution systems. This is evidenced in articles on the subject and filings made by various utilities as shown in Dr. Faruqui's Exhibit Faruqui Direct-3, which cites 23 DG-related filings in 16 states.

Some of the significant new impacts to the distribution system as a result of higher concentrations of DG installations include reverse power flow and voltage rise on sections of a distribution circuit. These impacts require new or increased utility management of existing devices on distribution circuits, additional devices, and augmented protection schemes and monitoring systems. The Electric Power Research Institute has been particularly active in studying these impacts and the potential solutions through Tailored Collaboration projects with participating utilities.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 9/18/2015

REQUEST NO.: VS 3-15

REQUESTER: **RESPONDER:** Sinobio, Joseph

REQUEST:

VS 3-15. Referring to NV Energy's response to Vote Solar data request no. VS 1-47, please identify all utilities in Dr. Faruqui's Exhibit Direct-3 that have experienced reverse power flow and voltage rise on sections of a distribution circuit. Please also describe any new costs (and their magnitude) experienced by each identified utility as a result of these issues.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

NV Energy does not have detailed knowledge of reverse flow or voltage rise on other utilities' distribution circuits.

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041 **REQUEST DATE:** 8/24/2015

REQUEST NO.: VS 1-49

REQUESTER: **RESPONDER:** Kocour, Rob

REQUEST:

Referring to Section II.K. of the Narrative (page 25 of 175, Volume 2 of the SPPC Application), please state whether "different types of generation that can be quickly deployed" is the only way to "follow additional intermittent resources as NEM concentrations increase." Please provide all studies prepared by or for NV Energy relating to load following.

RESPONSE CONFIDENTIAL (yes or no): No.

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

Other resources that can, at least in part, "follow additional intermittent resources as NEM concentrations increase" include participation in an imbalance market, demand response and storage technologies.

Load following studies are not necessarily material to the referred section dealing with intermittent generation as load following and responding to intermittent generation are not the same thing. However, Navigant Consulting, Sandia National Laboratories, and Pacific Northwest National Laboratory completed a "Large Scale PV Integration Study" on behalf of the Company in 2011. This study was filed July 29, 2011 as a compliance item in Docket Nos. 10-02009, 10-03022, and 10-03023. The study discusses the requirements and costs of integrating intermittent generation at Nevada Power and Sierra Pacific.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 9/18/2015

REQUEST NO.: VS 3-17

REQUESTER: **RESPONDER:** Kocour, Rob

REQUEST:

Referring to NV Energy's response to Vote Solar data request no. VS 1-49, please provide all studies, reports, and any other documentation prepared by or for NV Energy relating to the opportunities for using an imbalance market, demand response and/or storage technologies for following additional intermittent resources.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENTS CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: Two

RESPONSE:

Energy Imbalance Market: On April 16, 2014, the Companies filed the attached joint application, designated as Docket No. 14-04024, with the Public Utilities Commission of Nevada seeking the approval of amendments to their respective Energy Supply Plans to reflect participation in the Energy Imbalance Market. The joint application contains the economic assessment report prepared by Energy and Environmental Economics, Inc which documents the opportunities for the Energy Imbalance Market to assist with the integration of variable energy resources.

Demand Response: On July 1, 2015, Nevada Power filed the attached NPC 2015 Demand Response Program Data Sheet in the 2015 Nevada Power Integrated Resource Plan, designated as Docket No. 15-07004, with the Public Utilities Commission of Nevada. The attached demand data sheet documents opportunities for demand response to assist with the integration of variable energy resources.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 9/30/2015

REQUEST NO.: TASC 81

REQUESTER: **RESPONDER:** Bohrman, Jeff

REQUEST:

Request:

Please refer to the Direct Testimony of Ahmad Faruqui, page 5, "Economic efficiency: this principle ensures that price acts as a signal ensuring resources are not wasted. If a price is set to the incremental cost of providing a kWh, customers who value the kWh more than the cost will use it and customer who value it less will not."

a) Please explain whether the "incremental cost of providing a kWh" is equivalent to the utility's long-run marginal cost. If not, please explain what is meant by the "incremental cost".

b) Please describe how Dr. Faruqui defines "long-run" in terms of electricity-related costs, and approximate the number of years included in the definition, and the rationale for that number of years.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

a) In this Question and Answer Dr. Faruqui was summarizing Bonbright's 10 Principles of Rate Design into five Core Principles, including "Economic Efficiency" which was referenced in this request. Expanding the quotation from Dr. Faruqui's direct filed testimony adds clarity to the meaning. "If a price is set to *the incremental cost of providing a kWh*, customers who value the kWh more than the cost will use it and customers who value it less will not." The Company's marginal cost of service study develops the cost for adding the next unit of service to the system, including the cost of adding an additional customer, an additional kW of capacity, or an additional kWh of energy.

Unlike the term "marginal cost" that has a precise meaning in economics, the term "incremental cost" can have a variety of different meanings given the

context in which it is employed. Marginal cost precisely means the cost of producing one additional unit, while incremental cost may often be less restrictive and could simply represent a total additional cost (not per unit) that is incurred. For example, the costs incurred to produce a firm's output for the next week may be considered an incremental cost, but if it is the cost associated with an additional unit of production that is the marginal cost. Similarly, if a company introduces and sells a new product, the related new costs would properly be called *incremental*, not *marginal*. If a business closes, the costs saved are incremental, not marginal. Incremental costs do not necessarily have to account for any differences in the costs of production, but could simply be changes in the total costs of the company. The term incremental cost may at times be used interchangeably with marginal cost. However, as described above, incremental costs can refer to many things apart from what economists think of as marginal costs.

The Company uses a long run marginal cost methodology for the costs of all functions, except for marginal energy cost, which have historically been reflective of short-run marginal energy costs over the rate effective period. This marginal cost framework has been approved by the Commission in all litigated general rate case proceeding for years, and has been reconfirmed as an appropriate costing methodology in two separate investigations in recent years.

b) On page 15 of Dr. Faruqui's testimony he states:

> "Marginal cost of service studies establish a measure of ***long-run marginal costs*** for various aspects of utility costs. If these costs are then passed on to customers with minimal distortions (distortions are needed for revenue recovery), then customers will pay cost-reflective prices that enable them to make optimal decisions." (emphasis added)

For economists, the term "long-run" represents a theoretical time period in which there are no fixed factors of production. As such, long-run does not mean long-term, in that there are no set number of years to be included in the definition and does not refer to any period of time.

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041 **REQUEST DATE:** 8/24/2015

REQUEST NO.: VS 1-30

REQUESTER: **RESPONDER:** Murray, Jesse

REQUEST:

Refer to the following language in the first paragraph on page 15 of the Narrative (page 17 of 175, Volume 2, of the SPPC Application): "The proposed rates provide NEM customers an incentive to install efficient renewable DG in a manner that can provide benefits to all users of the electric grid …"

a) Please state whether all renewable DG is efficient.

b) If your answer to subpart (a) is "no," please explain whether the incentives in the proposed NEM2 tariffs are necessary for the installation of efficient renewable DG, and how the current rates provide or fail to provide an incentive to install efficient renewable DG.

c) Would increased cost savings to the NEM customer resulting from renewable DG provide a greater incentive to install efficient renewable DG?

d) Please explain how a NEM2 customer could install renewable DG more efficiently than a NEM1 customer.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

a) No. Efficiency can also be defined several different ways, including a simple volumetric energy production per unit of capacity, or as production coincident with peak demand per unit of capacity. Nevertheless, for solar systems generally, efficiency can vary greatly depending on the azimuth, tilt, and shading of the system. .

b) The proposed three-part rate design for the NEM 2 tariff will incentivize solar customers to size and orient their systems to coincide with their peak demand usage to the greatest extent possible. In most cases, a south or southwest orientation clear of shading will best accomplish this. The demand charge provides a clear pricing signal to the DG customer considering orientation that the volumetric energy charge in the NEM 1 tariff does not send.

c) This question appears to be asking about bill savings for the NEM customer. "Bill savings" alone do not provide a greater incentive to install efficient DG, and in some cases can actually result in the installation of less efficient DG. "Bill savings" based on rates that reflect a reduction in the cost to serve that customer will improve efficiency-- cost-based pricing will alter NEM customer behavior to the benefit of themselves and all other grid participants. "Bill savings" based on rates that do not reflect cost that result from subsidies may incentivize the customer to alter their orientation to the detriment of other grid participants, driving up their costs, and effectively increasing the subsidy that is provided.

d) A NEM2 customer could choose to orient its system to coincide with its maximum demand. This would allow the NEM2 to produce more at the time of peak, potentially reducing the demand charges it pays. A NEM 1 customer has less incentive to orient its system coincident with its peak demand or the system peak. With all costs recovered on a per kWh basis regardless of cost causation, NEM1 customers are incentivized to maximize total energy production, without regard to cost of the capacity needed to serve them.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 9/18/2015

REQUEST NO.: VS 3-02

REQUESTER: **RESPONDER:** Walsh, Laura

REQUEST:

Regarding the NV Energy's response to Vote Solar data request no. VS 1-25, please confirm that the billing demand under the proposed NEM2 tariffs is (i) the peak demand of the customer and (ii) does not take into account any reduction in that demand that might occur as a result of an on-site solar system. If your response to either subpart (i) or (ii) is anything but "confirm," please explain fully.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

As stated in the response to VS1-25, the demand billing determinants are based on the highest demand in any 15 minute interval for the billing period or on-peak period, depending on the charge to which it is applicable. To the extent a customer reduces their demand for that entire period measured, the demand billing determinant will reflect that reduction.

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041 **REQUEST DATE:** 8/24/2015

REQUEST NO.: VS 1-37

REQUESTER: **RESPONDER:** Wells, Janet

REQUEST:

Referring to the first full paragraph of page 20 of the Narrative,

a) Please identify the average peak demand and average consumption of "larger partial requirements customers" for each NV Energy company.

b) Do any of the residential or general service NEM customers qualify as "larger partial requirements customers" as used here?

c) Please provide any studies, reports or other documentation indicating that residential and general service partial requirements customers have the knowledge, expertise, and/or technologies available to them to manage their loads and electrical consumption.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

a)

Nevada Power	SSR-3, LGS-1	LSR-1, LGS-2T	LSR-2, LGS-3P	LSR-2, LGS-3T
Average Peak Demand (kW)	44	952	3,429	6,073
Average Consumption (kWh)	72,659	2,459,282	17,934,583	35,539,959
Sierra Pacific Power	SSR3P GS2	SSR3T GS2	LSR1 GS2T TOU	LSR2 GS3T TOU
Average Peak Demand (kW)	46	175	237	1,203
Average Consumption (kWh)	23,928	413	53,453	755,701
*Average peak demand is based off of the class annual peak demand divided by the number of customers in that				
**Average consumption is based off of annual consumption for the class divided by the number of customers in t				

b) No.

c) The bill and MyAccount, as well as the new MyAccount App, provide customers (NEM and non-NEM) information about their electric consumption. Customers have demonstrated an ability to manage their load by purchasing energy star equipment. With the addition of smart meters, customers also have access to their 15 minute

consumption data as well as multiple views of their data monthly and over time through MyAccount. Those customers who have chosen the company's residential and small general service optional time-of-use rates have demonstrated the ability to manage their load and understand their electric consumption.

The significant number of partial requirement residential and small general service customers has grown recently. If the options to add distributed generation have been fully understood by customers who have chosen to install generation on their property, it is reasonable to assume that those customers understand their load and electric consumption and the options to manage that load and consumption. Otherwise their decision to invest in or lease distributed generation was not well informed.

However, for over 20 years, the companies have been offering residential and small commercial customers energy efficiency programs. These programs have included education, energy efficiency measures, and direct load control programs. Whether or not they are partial requirements customers, customers have repeatedly demonstrated knowledge of and a willingness to manage their electric energy consumption. Please refer to the tri-annual resource plans for Nevada Power and Sierra for a complete list of programs, reports and documentation on the effectiveness of each program. As part of the Smart Grid Investment Grant (SGIG) that the Department of Energy (DOE) awarded to NV Energy, the company has conducted the Nevada Dynamic Pricing Trial (NDPT). This study is jointly sponsored by NV Energy and the DOE. A key finding from the study for full requirement residential customers participating in the NDPT, is the shifting of usage out of higher cost time of use periods as a result of their ability to understand and manage their loads and consumption.

Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.:	15-07041	**REQUEST DATE:**	9/1/2015
REQUEST NO.:	Staff 02		
REQUESTER:	Danise	**RESPONDER:**	Tim Pollard

REQUEST:

Reference: Net Metering Rider-2

Question: Section 2(A)(3) of Net Metering Rider-2 requires a generation meter for net metered systems. Please explain why NV Energy is requiring generation meters for net metered systems under the Net Metering Rider-2, and also provide an explanation as to why NV Energy is not requiring the generation meter for net metered systems under the Net Metering Rider-1. Additionally, please identify and explain the differences between a generation meter and a REC meter, including, but not limited to, manufacturer, model, cost, and metrology and communications capability.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

As stated in Section 2.C of the narrative, "Generation meters will facilitate compliance with SB 374's requirement that Nevada Power assess the effect of DG on its distribution system, accurately measure the cost of service, and could aid in demonstrating compliance with the Clean Power Plan."

For cost of service development, the proposed generation meter requirement for NEM2 customers is necessary to track and record the actual generation of the NEM2 DG systems, in order to develop the customer's total load hourly profile. This component is necessary to develop the full cost to serve these customers as a separate rate class. Relying on system nameplate capacity to determine DG system generation is at best an estimate and does not provide the necessary interval data.

The generation meter is not currently a requirement for NEM1 customers. This filing did not propose changes for NEM1 customers and allows them to be treated as they have always been treated.

There are no differences between the generation meter and a REC meter. The REC acronym stands for 'Renewable Energy Credit' which is a term defined within the NV Energy Incentivized Net Metering Program.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 10/5/2015

REQUEST NO.: VS 4-05

REQUESTER: **RESPONDER:** Aaron Schaar

REQUEST:

Refer to the Company's CWFS workpapers, which it provided in response to discovery request VS 1-26. For each of the following departments included in the workpapers, please describe the expenses and activities in these accounts for NEM and non-NEM residential customers, and explain why the per-customer costs for NEM and non-NEM residential customers differ. Please also provide all documentation supporting the costs allocated to NEM and non-NEM customers in the Residential class.

a. D425 - VP Customer Relationship
b. D440 - Credit & Billing – Manager
c. D441/D442 - Billing
d. D449 - Advanced MDM Operations
e. D451/D452 - Electric Meter Ops
f. D455 - Customer Information Systems
g. D460 - Customer Program
h. D831 - CIS Applications

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENTS CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: One

RESPONSE:

The overall expenses were based on a query for FERC accounts 901 to 909 from the 2013 Sierra Pacific General Rate Case (GRC) and the 2014 Nevada Power GRC. The financial query results for each of those departments are included in the attached file. The expenses by department and FERC account are shown in the summary table for each company. The update (files referenced in VS 1-26) to account for the NEM Residential and Small General Service customers in each department uses the same expenses with an adjustment to the allocation to account for the addition of NEM classes. The updates are based on a survey of departments that is used to allocate common expenses in proportion to the costs to serve each customer class grouping. The requested detail about the activity in each department is provided below.

a. D425 - VP Customer Relationship

The VP of Customer Relationship oversees several departments that relate to customer service responsibilities. D440 and D441/D442 are included in that oversight. The VP provides guidance to and assists the department heads under her supervision with issues related to customer service. The majority of the expense for this department is allocated to residential customers. The same service is provided in support of Residential and Small General Service customer groupings, but there is a higher magnitude of time and expense on a per customer basis to serve the equivalent NEM class grouping.

b. D440 - Credit & Billing – Manager

The Director of department D440 supervises the departments that handle the credit, final bills and billing for all customers. The activities described in item c. D441/D442 are supervised by the Director of D440. Based on the increased occurrence of the NEM billing review, questions, and issue resolution, there is a greater proportion of time and expense in this department on a per customer basis to assist with the resolution of issues related to the NEM classes.

c. D441/D442 – Billing

D441/D442 Billing employees monitor the allocation of NEM usage for reasonableness as it relates to delivered energy, received energy and the total generation from the renewable system. All bills are reviewed for reasonableness and validated through proper channels when necessary. Manual intervention is required for configuring the meter in the billing system to ensure the bi-directional meter records and bills properly. As described in Section 6 of the Narrative filed by Nevada Power and Sierra Pacific Power, customer service representatives (CSRs) are dedicated to serving the needs of the NEM customers. The expenses to serve those customers are spread to all NEM customers on an equal per customer basis.

The allocation of expenses on a per customer basis for equivalent class non-NEM customers is less in these departments since most of the billing work described above is unnecessary or is automated and the manual intervention is required much less frequently. Customer phone calls for standard Residential and Small General Service customers are handled in a different department.

d. D449 - Advanced MDM Operations, f. D455 - Customer Information Systems and h. D831 - CIS Applications

The departments identified by the numbers D449, D455 and D831 work together to enter each tariff and its components into the MDMS and Banner systems.

That activity includes analysts on the functional side of the process (D449 and D455) who determine structure and value of the rates and components that need to be created and/or modified in each of the systems (Banner and MDMS) to account for new or changing tariffs, individual rates and rate components. Their work includes the analysis on the front end of the process as well as validation once the coding is worked out to ensure that the proper values and components are populated in the General Ledger and each bill correctly. These analysts

communicate the requirements and rate structure necessary for each tariff and rate component to the programmers in the CIS Applications Department (D831). The programmers provide the coding and programming work necessary to implement the tariff and rate components in each of those systems.

The allocation of expenses to the customer groupings served by these departments is directly related to the complexity of the tariff, bill and the individual components. Since the NEM customer classes have more billing components, on the bill and especially in the components used to produce the bill, there is increased allocation of expenses relative to the equivalent non-NEM classes.

e. D451/D452 - Electric Meter Ops

In general, the Electric Meter Ops department is responsible for the coordination and administration of meter installation services for each company.

Each residential net meter installation requires the following activities which are not performed for a "standard" installation:

- Administrative set-up of project information in the distributed generation information management system (DGIM) and corresponding PowerClerk system.
- Net metering agreement package review (consists of application, billing statement, and building and electrical permit reviews)
- Utility safety inspection of distributed generation system
- Installation of net meter and generation meter (for incentivized projects only)
- Net meters require a reconfiguration from the base meter program. This step consists of updating a standard meter from default 'delivered' only meter configuration to delivered and received energy meter configuration.
- For incentivized instrument-rated net metering projects, the net metering process consists of an engineering review of the additional service entrance equipment required for the generation meter service.

Standard residential meter install activity is facilitated using an existing customer information system for tracking purposes. From account set-up to meter installation, special tracking or systems are NOT required for standard residential services.

Additionally, special contracts and/or agreements are NOT necessary for standard residential customers. NEM customers require special contracts and agreements to be put in-place. These contracts require special handling, management, and storage to ensure compliance with programs rules and statues.

Standard residential services do NOT require subsequent inspections after an initial meter installation. The utility inspection performed as part of the NEM construction process is similar to a service upgrade (*i.e.,* where a customer is increasing their load or relocating their service entrance equipment). The installation of distributed generation requires sign off by the local authority having jurisdiction (AHJ) before the Company can install a net meter.

Standard residential services do NOT require the use of a meter with any special programs. Therefore once a meter is accepted into inventory for production use it is available for installation without any special handling.

And lastly, in NO case does a standard residential service require the use of a second service or meter.

g. D460 - Customer Programs and Services

The Customer Programs and Services department handles customer complaints that have been forwarded by the PUCN. The difference in cost allocation between NEM and non-NEM Residential customers is based on the distribution of those complaints. The details of those complaints and the cost allocation have been discussed in response to data requests VS 4-07 and VS 2-30.

Sierra Pacific Power Company / Nevada Power Company
d/b/a NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO.: 15-07041/15-07042 **REQUEST DATE:** 10/5/2015

REQUEST NO.: VS 4-06

REQUESTER: **RESPONDER:** Aaron Schaar

REQUEST:

Refer to the Company's CWFS workpapers, which it provided in response to discovery request VS 1-26. For each of the following departments included in the workpapers, please describe the expenses and activities in these accounts for NEM and non-NEM general service customers, and explain why the per-customer costs for NEM and non-NEM general service customers differ. Please also provide all documentation supporting the costs allocated to NEM and non-NEM customers in the General Service class.

a. D425 - VP Customer Relationship
b. D440 - Credit & Billing – Manager
c. D441/D442 – Billing
d. D449 - Advanced MDM Operations
e. D451/D452 - Electric Meter Ops
f. D455 - Customer Information Systems
g. D460 - Customer Programs & Services
h. D831 - CIS Applications

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

The overall expenses were based on a query for FERC accounts 901 to 909 from the 2013 Sierra Pacific General Rate Case (GRC) and the 2014 Nevada Power GRC. The financial query results for each of those departments is included in the file attached to the response to data request VS 4-05. The expenses by department and FERC account are shown in summary table for each company. The update (files referenced in VS 1-26) to account for the NEM Residential and Small General Service customers in each department uses the same expenses, with an adjustment to the allocation to account for the addition of NEM classes. The updates are based on a survey of departments that is used to allocate those expenses in proportion to the costs for that department to serve each customer class grouping. The requested detail about the activity in each department is provided below.

a. D425 - VP Customer Relationship

The VP of Customer Relationship oversees several departments that relate to customer service responsibilities. D440 and D441/D442 are included in that oversight. The VP provides guidance to and assists the department heads under her supervision with issues related to customer service. The majority of the expense for this department is allocated to residential customers. The same service is provided in support of Residential and Small General Service customer groupings, but there is a higher magnitude of time and expense on a per customer basis to serve the equivalent NEM class grouping.

b. D440 - Credit & Billing – Manager

The Director of department D440 supervises the departments that handle the credit, final bills and billing for all customers. The activities described in item c. D441/D442 are supervised by the Director of D440. Based on the increased occurrence of the NEM billing review, questions, and issue resolution, there is a greater proportion of time and expense in this department on a per customer basis to assist with the resolution of issues related to the NEM classes than to the equivalent non-NEM classes.

c. D441/D442 – Billing

D441/D442 billing employees monitor the allocation of usage for reasonableness as it relates to delivered energy, received energy and the total generation from the renewable system. All bills are reviewed for reasonableness and validated through proper channels when necessary. Manual intervention is required for configuring the meter in the billing system to ensure the bi-directional meter records and bills properly. As described in Section 6 of the Narrative filed by Nevada Power and Sierra Pacific Power, customer service representatives (CSRs) are dedicated to serving the needs of the NEM customers. The expenses to serve those customers are spread to all NEM customers on an equal per customer basis.

The allocation of expenses on a per customer basis for equivalent class non-NEM customers is less in these departments since most of the billing work described above is unnecessary or is automated and the manual intervention is required much less frequently. Also, customer phone calls for standard Residential and Small General Service customers are handled in a different department.

d. D449 - Advanced MDM Operations, f. D455 - Customer Information Systems and h. D831 - CIS Applications

The departments identified by the numbers D449, D455 and D831 work together to enter each tariff and its components into the MDMS and Banner systems.

That activity includes analysts on the functional side of the process (D449 and D455) who determine structure and value of the rates and components that need to be created and/or modified in each of the systems (Banner and MDMS) to account for new or changing tariffs, individual rates and rate components. Their work includes the analysis on the front end of the process, as well as validation

once the coding is worked out to ensure that the proper values and components are populated in the General Ledger and each bill correctly. These analysts communicate the requirements and rate structure necessary for each tariff and rate component to the programmers in the CIS Applications Department (D831). The programmers provide the coding and programming work necessary to implement the tariff and rate components in each of those systems.

The allocation of expenses to the customer groupings served by these departments is directly related to the complexity of the tariff, bill and the individual components. Since the NEM customer classes have more billing components, on the bill, especially in the components used to produce the bill, there is an increased allocation of expenses relative to the equivalent non-NEM classes.

e. D451/D452 - Electric Meter Ops

Each small general service net meter installation requires the following activities which are not performed for a standard 'small general service' installation:

- Administrative set-up of project information in the distributed generation information management system (DGIM) and corresponding PowerClerk system.
- Net metering agreement package review (consists of application, billing statement, and building and electrical permit reviews)
- Utility safety inspection of distributed generation system
- Installation of net meter and generation meter (for incentivized projects only)
- Net meters require a reconfiguration from the base meter program. This step consists of updating a standard meter from default 'delivered' only meter configuration to delivered and received energy meter configuration.
- For incentivized instrument-rated net metering projects, the net metering process consists of an engineering review of the additional service entrance equipment required for the generation meter service.

Small general service meter install activity is facilitated using an existing customer information system for tracking purposes. From account set-up to meter installation special tracking or systems are not required for small general service services.

Additionally, special contracts and/or agreements are not necessary for standard small general service customers. NEM customers require special contracts and agreements to be in-place. These contracts require special handling, management, and storage to ensure compliance with programs rules and statues.

Standard small general service services do not require subsequent inspections after an initial meter installation. The utility inspection performed as part of the NEM construction process is similar to a service upgrade inspection (*i.e.,* when a customer is increasing their load or relocating their service entrance equipment). The installation of distributed generation also requires sign off by the local authority having jurisdiction (AHJ) before the Company can install a net meter.

Standard small general service services do not require the use of a meter with any special programs. Therefore once a meter is accepted into inventory for production use it is available for installation without any special handling.

And lastly, in no case does a standard small general service require the use of a second service or meter.

It should be noted that since there are relatively few incentivized small general service net metered customers, the cost per customer on a going-forward basis has been allocated the same as standard small general service customers.

g. D460 - Customer Programs and Services

The Customer Programs and Services department handles customer complaints that have been forwarded by the PUCN. The difference in cost allocation between NEM and non-NEM Residential customers is based on the distribution of those complaints. The details of those complaints and the cost allocation have been discussed in response to data requests VS 4-07 and VS 2-30.

Exhibit RG-4

Deposition Statements Referenced in Direct Testimony

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 metering tariffs. / Docket No. 15-07041

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

DEPOSITION OF JEFFREY BOHRMAN

Thursday, October 1, 2015

Reno, Nevada

REPORTED BY: SUSAN E. BELINGHERI, CCR #655

Q. Hence the title, present rate revenues from Statement J?

A. Uh-huh.

Q. Okay. So the difference between those would reflect the generation that was delivered to NV Energy, which was for which the customer got a credit.

A. That they delivered onto the grid, yes.

MS. DRAKULICH: Okay. That is all I have. Thank you. Thank you very much, Mr. Bohrman, for your patience.

MR. REID: Do we want to ask if there are questions in Las Vegas?

MS. TAUBER: Sure.

MR. SAUNDERS: No questions.

MS. GRUBBS: None.

EXAMINATION

BY MS. TAUBER:

Q. Mr. Bohrman, my name is Jill Tauber. I'm an attorney for Vote Solar, and I have just a few, so we're almost through.

Mr. Bohrman, you talked, you testified earlier in a discussion with counsel for TASC, the term "banking" came up a few times. Is that term familiar to you?

A. Yeah. Uh-huh.

Q. What's your understanding of that term?
A. It's a common term for when a, when a NEM customer generates excess energy above what they're using and they put it back on the grid. The company will essentially hold that for them for future use.
Q. And when you say "hold that," you're holding the kWh equivalent.
A. It's essentially an accounting mechanism.
Q. Okay. So you're not holding the electrons.
A. No.
Q. So -- and I believe you said earlier that it's, sticking with those different terms, excess energy or exported energy going back --
A. Uh-huh.
Q. -- it's reasonable to say that those can be used to serve other customers nearby.
A. Yeah, that's reasonable.
Q. I'd like to direct your attention -- I'm going to stick with Nevada Power's narrative, and I'd like to ask you to go to page 42. And that's 44 of 187. You can let me know when you're there.
A. Okay. I'm there.
Q. And so I'm looking at Subsection B, Rate Design. Do you see that?
A. Yes.

reconciled marginal cost revenue over the marginal cost revenue. So the value in column and row F 16, divided by the value in column D 16, multiplied by, for example, the value at column D 11, which would be the customer marginal cost revenue.

Q. Okay. So the ratio -- is the relevant ratio the 2 -- or $2,484 in F 16 as compared to the $3,520 in D 16?

A. Yes.

Q. Okay. So that would be, I don't know if this is the right term, but the reconciliation ratio, or proportion, that you're using?

A. Yes.

Q. Is it correct that the rates, the ultimate rates that are derived recover the embedded revenue requirement as opposed to the total marginal costs?

A. I think I'm following. Could you ask one more time?

Q. Sure. Are the rates that are designed, are they designed to recover the embedded revenue requirement?

A. Yes.

Q. How is the embedded revenue requirement determined?

A. That is completed by a separate group in the rates department, and I haven't, actually, ever done

that.

Q. Okay. So am I right, then, that whatever that amount is determined by that other department, the marginal cost of service is used to allocate the cost responsibility between the classes to make sure that you're recovering that embedded revenue requirement?

A. That is correct, yes.

Q. Okay.

MS. TAUBER: I think that's all I have.

MR. REID: Okay.

MS. DRAKULICH: I just have a couple more based on this. I'm sorry.

MR. REID: You're fine.

EXAMINATION

BY MS. DRAKULICH:

Q. Page 45, Mr. Bohrman. Ms. Tauber directed you to this paragraph related to, it's called Revenue Associated with the Value of NEM kWh Banking. Do you see that?

A. Not yet, no. Sorry.

MR. REID: Tell me the page again.

MS. DRAKULICH: Page 47 of 187.

THE WITNESS: And that's the bullet, the Revenue Associated with the Value of NEM kWh Banking?

A. I believe that was a policy decision made that I was not part of.

Q. When a NEM customer generates their own energy on site, are they only avoiding the generation and energy costs?

A. They're actually avoiding the energy and a piece of generation charges.

Q. When the customer that receives the generation that a NEM customer puts on the grid, that customer still pays the full bundled rate for that kilowatt hour; correct?

A. That is correct. However, when the NEM, the same NEM customer needs their net kilowatt hour, the company must deliver that and they are not charged.

Q. But the utility company already collected the kilowatt hour, the cost of the kilowatt hours that, that have been banked for that NEM customer that were delivered to another customer on the grid.

A. They charged, we charged the other customer for that kilowatt hour, yes.

Q. Okay. When that other customer pays that kilowatt hour, are there generation costs in there attributable to the utility company's generation?

A. Could you rephrase that, please? Or ask it again.

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

oOo

Application of Nevada Power Company d/b/a NV Energy for approval of a cost of service study and net metering tariffs. /	Docket No. 15-07041
Application of Sierra Pacifc Power Company d/b/a NV Energy for approval of a cost of service study and net metering tariffs. _____/	Docket No. 15-07042

DEPOSITION OF

AARON SCHAAR

Tuesday, September 29, 2015

Reno, Nevada

REPORTED BY: MICHELLE BLAZER
CCR #469 (NV)- CSR #3361 (CA)

Q And which year was that figure from?
A I believe that would be current year expenses.
Q Current year would be 2015?
A I don't know. I would need to check with the department head, but I believe it is the 12 months from 2015 June, so it would have been that year.
Q How is that cost currently recovered?
A I don't know.
Q There is a statement in that paragraph that says, "A portion of the supervisor's time in that department is allocated to the net metering costs."
Is that correct?
MR. REID: Could you -- could you tell me what sentence you are referring to?
BY MR. FOX:
Q Certainly. It would be the second sentence in that, the last paragraph. It begins "in that Nevada Power territory".
MR. REID: Thank you.
THE WITNESS: And I'm sorry, can you repeat the question?
BY MR. FOX:
Q Certainly, Mr. Schaar.
Does this state that there is a portion of a supervisor's time in that department that's allocated to

BY MR. FOX:

Q Mr. Schaar, I am going to ask you some questions related to the narrative on page 64, and in particular, I have a question that is related to the third paragraph down that begins with "there were also"; do you see that paragraph?

A Yes.

Q And four lines down there is a sentence that begins with "however". It says, "However, there are solutions presently being implemented."

Do you see that sentence?

A Yes.

Q What are those solutions?

A I don't know.

Q Did you draft that sentence?

A Yes, I did.

Q And you, you don't recall what you were referring to when you used the word solutions?

A I do recall. I was referring to the information that I received from the director of that department who told me that there are solutions presently being implemented that are expected to significantly reduce those complaints.

Q Is that Ms. Tsuda?

A No, that is not. It is customer programs and

the update?

A The purpose of the update was to separate out the residential and small commercial net metering customer groupings and to update the expenses for those groupings being separated out from their otherwise applicable classes.

Q Thank you. Now, in that sentence that we just reviewed there is a mention of a survey of the specific departments; do you see that language?

A Yes.

Q Is that the same -- Is that the same thing as the informal poll that you were just discussing with counsel?

A No. Those are two different things.

Q What is this survey?

A This survey is to determine the expense allocation from each of these departments for the expenses that they have in these FERC, FERC accounts.

Q What does that survey consist of?

A It basically takes the expenses that each department has and these FERC accounts and the representative from that department will determine a percentage allocation based on the work that they do in the department. So they allocate those expenses within their department to those various class groupings.

significant, but I review the expenses with all of the respondents. So there is more discussion if the change is bigger than others. So if there is a larger impact similar to the ones that are specifically noted, then that's what -- that's why they are specifically noted, if the change were larger than what we saw in other departments.

Q So is it more -- is it more of a judgment call as between you and the department head as opposed to having a quantifiable criteria that you use?

A I would not call it a judgment call because professionals in those departments are making those allocations. They are determining what those -- how those expenses are allocated so they know those departments.

Q So in terms of assessing whether a change is significant that would be the call of the department head as opposed to you?

A Whether or not it's significant, I mean, I review the results so I determine probably whether or not it's significant just by the changes in the study.

Q So Mr. Schaar, I'd like to refer you to page -- the next page, page 62 of the narrative, and I am looking at the final paragraph.

So it's the paragraph that starts on this page

Exhibit RG-5

Comparison of Marginal and Cost-based Class Revenue Requirement and Rates, NPC and SPCC

Exhibit RG-5

Marginal and Cost-based Class Revenue and Rates

	NPC	RS-NEM MCS	RS-NEM ERR	RM-NEM MCS	RM-NEM ERR	LRS-NEM MCS	LRS-NEM ERR	GS-NEM MCS	GS-NEM ERR
2	**Total Distribution Services**	$3,520	$2,484	$28	$19	$19	$13	$81	$57
3	**Total Transmission**	$783	$887	$5	$6	$3	$3	$15	$17
4	**Total Generation**	$4,278	$3,778	$26	$23	$17	$15	$76	$67
5	**Total Energy**	$2,633	$2,325	$22	$20	$16	$14	$85	$76
6	**Cost Based Total**	$11,214	$9,474	$82	$68	$55	$46	$257	$217
7	**Energy**	62,472,545	62,472,545	539,019	539,019	404,142	404,142	2,104,316	2,104,316
8	**Rate**	$0.17950	$0.15165	$0.15188	$0.12669	$0.13605	$0.11377	$0.12211	$0.10308
9	**Difference**	18%		20%		20%		18%	
1									
1	Source: Statement O								
0	Workpapers	P. 3 of 11	P. 3 of 11	P. 1 of 11	P. 1 of 11	P. 5 of 11	P. 5 of 11	P. 7 of 11	P. 7 of 11

	SPPC	D-1 NEM MCS	D-1 NEM ERR	DM-1 NEM MCS	DM-1 NEM ERR	GS-1 NEM MCS	GS-1 NEM ERR
2	**Total Distribution Services**	$883	$572			$271	$176
3	**Total Transmission**	$47	$84			$20	$35
4	**Total Generation**	$279	$242			$116	$101
5	**Total Energy**	$444	$385			$204	$176
6	**Cost Based Total**	$1,652	$1,282			$611	$489
7	**Energy**	10,373,038	10,373,038			4,789,766	4,789,766
8	**Rate**	$0.15930	$0.12357			$0.12752	$0.10206
9	**Difference**	29%				25%	
1							
1	Source: Statement O						
0	Workpapers	P. 1 of 9	P. 1 of 9			P. 5 of 9	P. 5 of 9

CERTIFICATE OF SERVICE

Docket Nos. 15-07041 and 15-07042

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