

# Renewable Portfolio Standard Annual Report

Nevada Power Company d/b/a NV Energy

Sierra Pacific Power Company d/b/a NV Energy

Compliance Year **2016**



100-Megawatt Boulder Solar I  
Eldorado Valley, Nevada  
Operational 2016

---

**NV Energy**

**Nevada Power Company *d/b/a* NV Energy**

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

**Portfolio Standard Annual Report**

**Compliance Year 2016**

**Docket No. 17-03044**

**March 30, 2017**

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

(This page left blank intentionally)

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Table of Contents**

<b>1. INTRODUCTION</b>	<b>7</b>
<b>2. EXECUTIVE SUMMARY</b>	<b>8</b>
<b>3. NEVADA POWER ANNUAL REPORT REQUIREMENTS</b>	<b>12</b>
3.1. OVERVIEW	12
3.2. NV GREENENERGY RIDER TARIFF	12
3.3. 2016 EXIT AGREEMENTS	13
3.4. 2016 COMPLIANCE OUTLOOK	14
3.5. 2016 SURPLUS CREDIT CALCULATION	15
3.6. 2016 CAPACITY	15
3.7. 2016 NEW SYSTEMS	16
3.8. 2016 RETAIL SALES	16
3.9. 2016 RPS COMPLIANCE TOTAL AND SUMMARY OF RPS SOURCES	16
3.10. 2016 CREDIT SALES	18
3.11. 2016 CARRY FORWARDS	18
3.12. 2017 ESTIMATED SALES	19
3.13. 2017 ESTIMATED CREDIT REQUIREMENT	19
3.14. 2017 ESTIMATED COSTS	20
3.15. 2016 AFFIRMATIVE SHOWING OF RPS COMPLIANCE	21
3.16. 2016 ATTESTATIONS	22
3.17. 2016 JOINT POOLING ARRANGEMENT WITH SIERRA STATUS	22
3.18. 2016 DSM CONTRIBUTION	24
<b>4. SIERRA ANNUAL REPORT REQUIREMENTS</b>	<b>25</b>
4.1. OVERVIEW	25
4.2. NV GREENENERGY RIDER TARIFF	25
4.3. 2016 OTHER CREDIT OBLIGATIONS	26
4.4. 2016 COMPLIANCE OUTLOOK	27
4.5. 2016 SURPLUS CREDIT CALCULATION	27
4.6. 2015 SURPLUS MARKETING EFFORTS & OUTCOME	28
4.7. 2016 CAPACITY	30
4.8. 2016 NEW SYSTEMS	30
4.9. 2016 RETAIL SALES	30
4.10. 2016 RPS COMPLIANCE TOTAL AND SUMMARY OF RPS SOURCES	31
4.11. 2016 CREDIT SALES	32
4.12. 2016 CARRY FORWARDS	32
4.13. 2017 ESTIMATED SALES	33
4.14. 2017 ESTIMATED CREDIT REQUIREMENT	33
4.15. 2017 ESTIMATED COSTS	34
4.16. 2016 AFFIRMATIVE SHOWING OF RPS COMPLIANCE	35
4.17. 2016 ATTESTATIONS	36
4.18. 2016 JOINT POOLING ARRANGEMENT WITH NEVADA POWER STATUS	36
4.19. 2016 DSM CONTRIBUTION	38
<b>5. APPENDIX</b>	<b>39</b>
5.1. NEVADA POWER PROJECTED PORTFOLIO STANDARD REQUIREMENTS AND SUPPLIES	39
5.2. SIERRA PROJECTED PORTFOLIO STANDARD REQUIREMENTS AND SUPPLIES	42
5.3. ATTESTATIONS	45
5.4. GREENRIDER OPTION 1 CUSTOMERS BY CUSTOMER TYPE	69
5.5. RFP OFFER	70
5.6. 2016 RFP MAILING LIST	74



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

5.7.	RFP BID RESPONSES .....	77
5.8.	RFP EVALUATION RESULTS .....	80
5.9.	DSM 2015 CREDIT CALCULATIONS .....	81

**Tables**

<a href="#"><u>TABLE 2-1 NEVADA POWER AND SIERRA PACIFIC 2016 COMPLIANCE SUMMARY</u></a> .....	8
<a href="#"><u>TABLE 3-1 NEVADA POWER 2016 ACTUAL AND 2017-2020 PROJECTED CREDIT OBLIGATION TO MGM AND WYNN PER THE EXIT AGREEMENTS</u></a> .....	14
<a href="#"><u>TABLE 3-2 NEVADA POWER 2016 SURPLUS CARRY FORWARD TEST</u></a> .....	15
<a href="#"><u>TABLE 3-3 NEVADA POWER 2016 OWNED RENEWABLE ENERGY CAPACITY</u></a> .....	16
<a href="#"><u>TABLE 3-4 NEVADA POWER 2016 SUMMARY OF RPS SOURCES</u></a> .....	17
<a href="#"><u>TABLE 3-5 NEVADA POWER 2016 VOLUNTARY AND EXCESS CREDIT SALES</u></a> .....	18
<a href="#"><u>TABLE 3-6 NEVADA POWER 2016 CARRY FORWARD</u></a> .....	19
<a href="#"><u>TABLE 3-8 NEVADA POWER 2017 ESTIMATED RPS COMPLIANCE COSTS</u></a> .....	20
<a href="#"><u>TABLE 3-7 NEVADA POWER 2017 ESTIMATED RPS CREDIT REQUIREMENT</u></a> .....	20
<a href="#"><u>TABLE 3-9 NEVADA POWER 2016 RPS COMPLIANCE SUMMARY</u></a> .....	21
<a href="#"><u>TABLE 3-10 NEVADA POWER JOINT POOL ACCOUNTING</u></a> .....	23
<a href="#"><u>TABLE 4-1 SIERRA 2016 SURPLUS CARRY FORWARD TEST</u></a> .....	27
<a href="#"><u>TABLE 4-2 SIERRA 2015 SURPLUS CALCULATION</u></a> .....	28
<a href="#"><u>TABLE 4-3 SIERRA 2016 REVERSE RFP BID RESULTS SUMMARY</u></a> .....	29
<a href="#"><u>TABLE 4-4 SIERRA 2016 OWNED RENEWABLE ENERGY CAPACITY</u></a> .....	30
<a href="#"><u>TABLE 4.5 SIERRA 2016 SUMMARY OF RPS SOURCES</u></a> .....	31
<a href="#"><u>TABLE 4.6 SIERRA 2016 VOLUNTARY AND EXCESS CREDIT SALES</u></a> .....	32
<a href="#"><u>TABLE 4.7 SIERRA CARRY FORWARD</u></a> .....	33
<a href="#"><u>TABLE 4.8 SIERRA 2017 ESTIMATED RPS CREDIT REQUIREMENT</u></a> .....	34
<a href="#"><u>TABLE 4.9 SIERRA 2017 ESTIMATED RPS COMPLIANCE COSTS</u></a> .....	34
<a href="#"><u>TABLE 4.10 SIERRA 2016 RPS COMPLIANCE SUMMARY</u></a> .....	35
<a href="#"><u>TABLE 4.11 SIERRA JOINT POOL ACCOUNTING</u></a> .....	36

**Figures**

Figure 1 Renewable Energy Projects Map.....	10
Figure 2 Nevada Power RPS Percentage Overall & Solar .....	12
Figure 3 Sierra Pacific Power RPS Percentage Overall & Solar .....	25

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Glossary of Terms and Abbreviations**

2016 Annual Report	Portfolio Standard Annual Report Compliance Year 2016
AB	Assembly Bill
Commission	Public Utilities Commission of Nevada
DSM	Demand-Side Management (energy efficiency savings)
GRT	Green Energy Rider Tariff
kPC	One thousand Portfolio Energy Credits
kWh	Kilowatt-hours
MW	Megawatt of AC nameplate capacity, unless noted otherwise
MWh	Megawatt-hours (or one thousand kilowatt-hours)
NAC	Nevada Administrative Code
NGR	NV GreenEnergy Rider
Nevada Power	Nevada Power Company, d/b/a NV Energy
NRS	Nevada Revised Statutes
NVE	NV Energy, Inc.
PC	Portfolio Energy Credit, one kilowatt hour of renewable energy generated or one Kilowatt hour of energy saved through an efficiency program
PUCN	Public Utilities Commission of Nevada
RFP	Request for Proposal
RPS	Renewable Portfolio Standard
SB	Senate Bill
Sierra	Sierra Pacific Power Company, d/b/a NV Energy
WREGIS	Western Renewable Energy Generation Information System

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

(This page left blank intentionally)

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

## **1. Introduction**

Nevada Power Company d/b/a NV Energy (“Nevada Power”) and Sierra Pacific Power Company d/b/a NV Energy (“Sierra”) are both wholly owned subsidiaries of NV Energy, Inc., a wholly owned subsidiary of Berkshire Hathaway Energy Company. Nevada Power and Sierra, referred to in this Report at times as the “Utilities” serve a combined service territory of approximately 45,592-square miles, all in the state of Nevada, and together they serve approximately 1.25 million customers. Nevada Power and Sierra serve approximately 911,000 electric customers in southern Nevada, primarily in the Las Vegas area, and 340,000 electric customers in northern Nevada, as well as 163,000 natural gas customers in the Reno-Sparks area of northern Nevada.

This Portfolio Standard Annual Report for Compliance Year 2016 (“2016 Annual Report”) covering the period from January 1, 2016 through December 31, 2016 is submitted by Nevada Power and Sierra to the Public Utilities Commission of Nevada (“Commission”) pursuant to section 704.7800 et. seq. of the Nevada Revised Statutes (“NRS”) and the corresponding provisions of the Nevada Administrative Code (“NAC”) to document their respective compliance with Nevada’s Renewable Portfolio Standard (“RPS”).

Nevada’s history with respect to renewable energy policy dates back to utility restructuring legislation in 1997. It was then that the Nevada Legislature enacted the initial RPS requirement, which mandates that a specific minimum portion of the energy delivered to Nevada retail customers be met by renewable energy resources. Since that time, Nevada has made several revisions to its RPS, both increasing the overall RPS percentage and revising the statutes that determine the eligibility for and calculation of the energy credits. Renewable resources, as defined under the NRS and NAC, include geothermal, solar, wind, small hydro, biomass and recovered energy from waste-heat sources. Nevada’s current RPS, adopted in 2009, required that for calendar year 2016, not less than 20 percent of electricity sold to Nevada retail customers must have been met with renewable energy resources and credits, and that not less than 6 percent of that amount must be met with solar resources. Additionally, of the total amount that the utility is required to generate, acquire or save from renewable energy systems or energy efficiency measures during each calendar year, not more than 20 percent of that amount may be met through energy efficiency measures. Of the energy efficiency measures, at least 50 percent of that amount must be saved from energy efficiency measures installed at service locations of residential customers. Energy saved by customers through energy efficiency and conservation measures is referred to as Demand-Side Management (“DSM”).

The RPS is stated in terms of the number of Portfolio Energy Credits (“PCs”) required for compliance. A PC is equal to one kilowatt hour (“kWh”) of renewable energy generated or one kWh of energy saved through an efficiency program. Similarly, one megawatt hour (“MWh”) of energy from renewable resources or savings from an efficiency program would result in one thousand PCs, or a “kPC”. Various regulatory or statutory provisions may allow for a different number of PCs for specific types of energy or efficiency measures as set forth in the NRS and the NAC.

The RPS is scheduled to increase from its current level of 20 percent to 22 percent of retail sales starting 2020 and finally rise to 25 percent of retail sales starting in 2025. In 2016, the number of renewable credits from allowable DSM programs is capped at 20 percent of the overall credit total. The DSM limit will further decrease to no more than 10 percent of the RPS credit total in 2020, and finally zero percent of the RPS credit total starting in 2025. Finally, the solar requirement increased from 5 to 6 percent of the overall credit requirement effective 2016.



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

## **2. Executive Summary**

Both Nevada Power and Sierra successfully met the 2016 RPS requirement.

For Nevada Power, the 2016 RPS required the utility to supply 4,316,308 kPCs, of which 258,978 kPCs were required to be supplied from solar resources. Nevada Power exceeded both requirements by accumulating 4,784,593 eligible kPCs in total, of which 1,586,532 kPCs were solar energy credits.

For Sierra, the 2016 RPS required the utility to supply 1,667,700 kPCs, of which 100,062 kPCs were required to be supplied from solar resources. Sierra has exceeded both requirements, accumulating 2,214,382 eligible kPCs in total of which 462,943 kPCs were solar energy credits.

Table 2-1 below summarizes the calculation of the 2016 RPS credit requirement and the total number of eligible credits for each utility by credit type.

**Table 2-1 Nevada Power and Sierra Pacific 2016 Compliance Summary**

	Nevada Power	Sierra
Retail Sales (MW hrs)	21,581,533	8,338,498
RPS	<u>20%</u>	<u>20%</u>
Credit Requirement	4,316,308	1,667,700
Solar Carve Out (5%)	258,978	100,062
DSM Allowance (20%)	863,262	333,540
Eligible 2016 Credits (kPCs)		
Non-Solar/Non-DSM	2,334,799	1,417,899
Solar	1,586,532	462,943
DSM	<u>863,262</u>	<u>333,540</u>
	4,784,593	2,214,382

In 2016, Nevada Power added one new renewable resource to its renewable generating portfolio. Boulder Solar 1 is a 100 MW photovoltaic project located in Boulder City, Nevada. Boulder Solar 1 achieved commercial operation on December 9, 2016. This new solar project increased Nevada Power's total MWs of renewable generation in operation to 932.2 MWs. Like Sierra, all of Nevada Power's operating projects are located in Nevada, and all are currently delivering renewable energy to meet the needs of Nevada Power's customers.

In 2016 Nevada Power received Commission approval in Docket No. 16-08026 to enter into a purchase power agreement with Techren Solar, LLC to purchase energy from a 100 MW (nameplate AC) photovoltaic facility, Techren Solar 1. Techren Solar 1 will be located in Boulder City. Construction of the project is currently underway, and the project is expected to declare commercial operation in late December 2018.

NRS 704.7828(2) established requirements for carrying forward and selling of excess surplus credits. Under this statute, the Utilities may elect to market and sell credits which total 10 but less than 25 percent of the credits necessary to comply with the RPS for the subsequent year, and shall

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

make reasonable efforts to market and sell credits exceeding 25 percent of more of the number of credits necessary to comply with the RPS for the subsequent year. Sections 3.5. and 4.5. of this report show the calculation of 2016 excess surplus and section 4.6. discusses the actions taken by Sierra in 2016 to market and a resulting sale of a small number of excess 2015 credits.

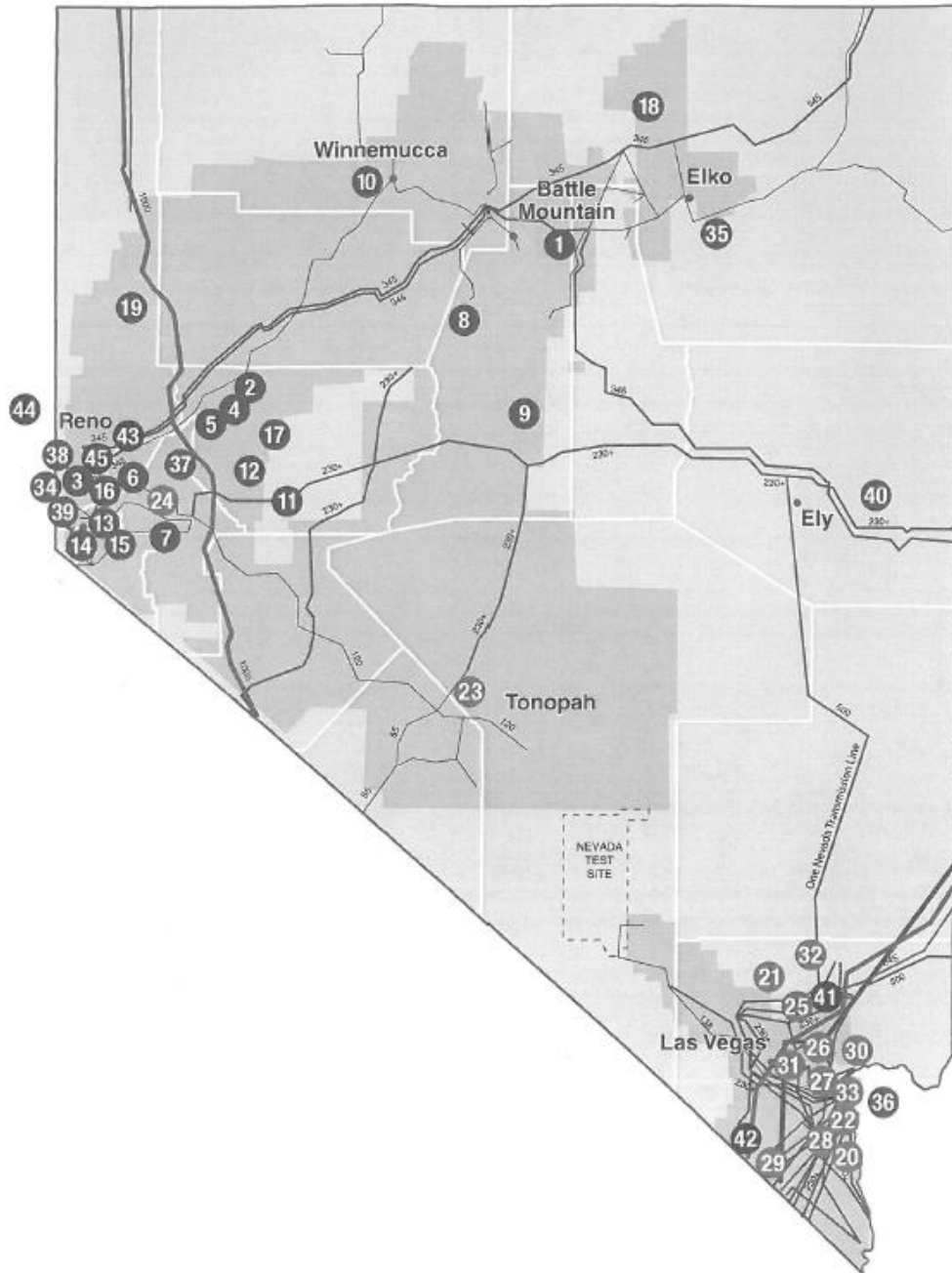
DSM continues to be a vital tool for Nevada Power and Sierra to achieve cost-effective RPS compliance. Nevada Power began 2016 with a carry forward of 3,481,285 kPCs from DSM in prior years. Sierra Pacific Power began 2016 with a carry forward of 777,116 kPCs. Both DSM carry forward balances are more than sufficient for Nevada Power and Sierra to fully meet the 20 percent DSM credit limitation. The total number of DSM credits reported in this filing is limited to only DSM credits that Commission authorized the Utilities to carry forward from 2015 and DSM credits that were derived from Commission approved 2015 DSM program spending. Nevada Power and Sierra are not requesting the Commission's approval of 2016 DSM credits, both credits derived from 2016 programs and credits derived from prior-year programs but earned in 2016. The company will seek approval for these credits in a separate 2017 DSM filing. For additional details on DSM contributions, please see sections 3.18. and 4.19.

Sections 3.2 and 4.2 discuss the NGR tariffs. Section 3.2 addresses the status of Nevada Power's two NGR agreements with Switch now that Switch has received Commission approval to purchase its energy, capacity, and/or ancillary services from a provider of new electrical resources. Section 4.2 covers Sierra's NGR tariff Option 1 sales and NGR agreements. The NGR tariff Option 1 (also called Northern NV Green Energy Choice) is a voluntary program open to all Sierra customers. This tariff allows customers of any class to purchase either 50 percent or 100 percent of their energy needs from renewable resources. The Commission in Docket No. 12-11023 requires the utility to report certain statistics on Option 1 participation levels, and the number of portfolio energy credits to be retired under the new tariff. It also requires Sierra to report the revenues and costs associated with marketing and administering the program in its annual compliance filing. Section 4.2 discusses the status of Sierra's NGR agreement with Switch now that Switch has opted and received Commission approval to purchase its energy, capacity, and/or ancillary services from a provider of new electrical resources. It also discuss Sierra's three NGR agreements with Apple: Fort Churchill Solar Array (17.5 MW), Boulder Solar 1 (50 MW), and a pending NGR for Techren Solar 2 (200 MW).

A map of all facilities operating, in construction or in development for Nevada Power and Sierra is set forth in the following pages and shows the individual projects by name, type, nameplate megawatt rating, and corresponding map location.

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

Figure 1 Renewable Energy Projects Map



NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

## Renewable Energy Project List

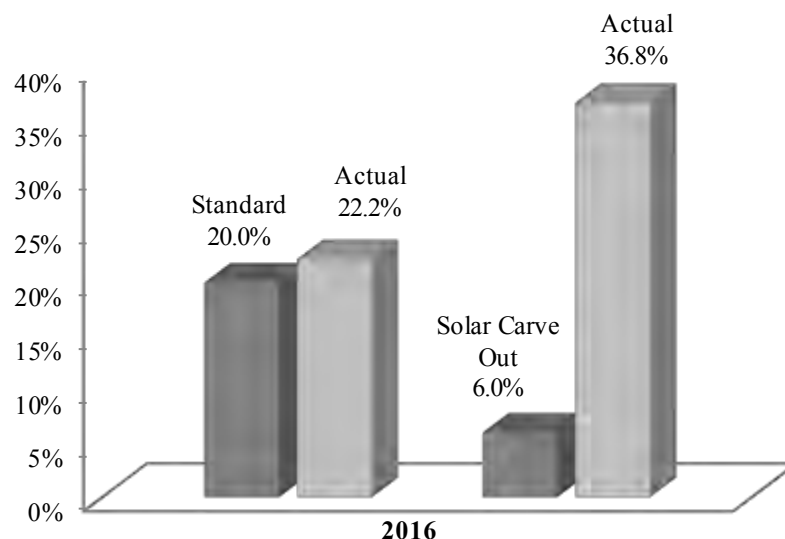
<b>GEO THERMAL</b>	<b>1</b> Beowawe Power 17.7 MW	<b>8</b> Jersey Valley Geothermal Project 22.5 MW	<b>15</b> Steamboat III 13.4 MW
	<b>2</b> Brady Geothermal Project 24.0 MW	<b>9</b> McGinness Hills 96.0 MW	<b>16</b> Steamboat Hills 14.6 MW
	<b>3</b> Burdette 26.0 MW	<b>10</b> NGP Blue Mountain 49.5 MW	<b>17</b> Stillwater 47.2 MW (Photovoltaic Addition 22.0 MW)
	<b>4</b> Desert Peak Geothermal Project #2 25.0 MW	<b>11</b> Salt Wells 23.6 MW	<b>18</b> Tuscarora 32.0 MW
	<b>5</b> Galena 2 13.0 MW	<b>12</b> Soda Lake I & II 23.1 MW	<b>19</b> USG San Emidio 11.8 MW
	<b>6</b> Galena 3 26.5 MW	<b>13</b> Steamboat IA 2.0 MW	
	<b>7</b> Homestretch 5.6 MW	<b>14</b> Steamboat II 13.4 MW	
<b>SOLAR</b>	<b>20</b> ACE Searchlight 17.5 MW	<b>25</b> Mountain View Solar 20.0 MW	<b>30</b> Spectrum Nevada Solar 30.0 MW
	<b>21</b> Apex Nevada Solar 20.0 MW	<b>26</b> Nellis AFB Solar Star 13.2 MW	<b>31</b> SunPower (Las Vegas Valley Water District) 3.0 MW
	<b>22</b> Boulder Solar I 100.0 MW Boulder Solar II 50.0 MW	<b>27</b> Nellis Solar Array II 15.0 MW	<b>32</b> Switch Station 1 ● 100.0 MW
	<b>23</b> Crescent Dunes 110.0 MW	<b>28</b> Nevada Solar One 69.0 MW	Switch Station 2 ● 79.0 MW
	<b>24</b> Fort Churchill Solar Array 19.5 MW	<b>29</b> Silver State Solar North 52.0 MW	<b>33</b> Techren Solar Energy I ● 100.0 MW
			Techren Solar Energy II ● 200.0 MW
<b>OTHER</b>	<b>HYDRO</b>		<b>BIOMASS/OTHER</b>
	<b>34</b> Fleish 2.3 MW	<b>41</b> Apex Landfill Energy 12.0 MW	
	<b>35</b> Hooper 0.8 MW	<b>42</b> Goodsprings Energy Recovery Station 7.5 MW	
	<b>36</b> Hoover Dam 235.2 MW (RPS Excluded)	<b>43</b> Lockwood Renewable Energy 3.2 MW	
	<b>37</b> New Lahontan (TCID) 4.0 MW	<b>44</b> Sierra Pacific Industries 10.0 MW	
	<b>38</b> Verdi 2.2 MW	<b>45</b> Truckee Meadows Water Reclamation Facility 0.8 MW	
	<b>39</b> Washoe 2.2 MW		
<b>WIND</b>	<b>40</b> Spring Valley Wind 151.8 MW	● Pending regulatory approval, in development or under construction	

### 3. Nevada Power Annual Report Requirements

#### 3.1. Overview

Nevada Power exceeded both the 2016 RPS credit requirement and the 2016 RPS solar requirement of 20 percent of retail sales from RPS-eligible resources and 6 percent of the RPS from solar resources, achieving 22.2 percent and 36.8 percent respectively. The overall RPS percentage shown below is based on overall credit requirement of 4,316,308 kPCs and a total of 4,784,593 eligible credits. The solar RPS carve out percentage is based on a solar requirement of 258,978 kPCs and a total of 1,586,532 eligible solar credits. Ignoring DSM credits in excess of the 20 percent DSM limit, Nevada Power ended 2016 with a net surplus of 468,285 kPCs, all solar.

**Figure 2 Nevada Power RPS Percentage Overall & Solar**



In calendar year 2016 one new solar project, Boulder Solar 1, totaling 100 MW was completed. This project achieved commercial operation on December 9, 2016. The project was approved by the Commission in Docket No. 15-07003. With the addition of this new solar facility, Nevada Power ended 2016 with a total of 932.2 MWs of renewable energy capacity in commercial operation.

Nevada Power received Commission approval to enter into a long-term PPA with Techren Solar, LLC to purchase energy from a new 100 MW photovoltaic facility, Techren Solar 1. Techren Solar 1 will be located in Boulder City, Nevada. The agreement was approved by the Commission in Docket No. 16-08026. The project is expected to come online in late December 2018.

#### 3.2. NV GreenEnergy Rider Tariff

Nevada Power had previously entered into two NGR agreements with Switch. The first, Switch Station 1, as known as Playa Solar 2, is a 100 MW photovoltaic project located in Clark County, Nevada northeast of Las Vegas. The project was approved by the Commission in Docket No. 15-

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

07003. Subsequently, Nevada Power entered into an NGR agreement with Switch under which the renewable energy attributes from the project were assigned to Switch. This agreement was approved by the Commission in Docket No. 15-08005. Nevada Power also entered into a second NGR agreement with Switch for 35 percent of the output from a new 79 MW photovoltaic project, Switch Station 2, also known as Playa Solar 1, located in Clark County, Nevada. The agreement was approved by the Commission in Docket No. 15-11028. The balance of the renewable attributes from this project is assigned to Switch under a companion NGR agreement with Sierra.

In 2016, Switch received Commission approval to purchase its energy, capacity and/or ancillary services from a provider of new electric services for its operations in both Utilities' service territories. Switch's exit application was approved in Docket No. 16-09023. Switch is expected to begin purchasing its energy from an alternative supplier in Q3 2017. Under the exit agreement, the first NGR agreement between Nevada Power and Switch for Switch Station 1 continues with Switch agreeing to purchase the portfolio energy credits from the project for the duration of the agreement. The exit order directs Switch to seek assignment of the second agreement between Nevada Power and Sierra Pacific Power for Switch Station 2.

Per the terms of a short-term NGR agreement between Nevada Power and the City of Las Vegas, Nevada Power will sell 3,600 2016 vintage kPCs from Boulder Solar 1 to the city. The agreement directs Nevada Power to sell 43,200 MW hours of energy credits from the project to the City of Las Vegas for three years. The agreement was to commence upon the project achieving commercial operation. The project achieved commercial operation on December 9, 2016. This transfer is reported below in Section 3.10., Credit Sales. The sale agreement was approved by the Commission in Docket No. 15-11026.

### **3.3. 2016 Exit Agreements**

In 2016, MGM Resorts International and Wynn Las Vegas received Commission approval to purchase their energy, capacity, and/or ancillary services from a provider of new electrical resources. MGM Resorts International's exit request was approved by Commission in Docket No. 15-05017; Wynn's exit request was approved in Docket No. 15-05006. Both MGM and Wynn subsequently began purchasing their energy from an alternative energy provider effective October 1, 2016.

The terms of the MGM and Wynn exit agreements differ from the Switch exit agreement. Under the MGM and Wynn exit agreements, both customers agreed to a special tariff, R-BTER, to offset a portion of the cost of certain long-term purchase power agreements that Nevada Power entered into when Nevada Power was their energy supplier. Payment of the tariff entitles MGM and Wynn to receive a portion of the portfolio energy credits associated with the agreements included in the tariff. They are also entitled to a portion of Nevada Power's 2015 credit surplus, and a portion of the additional surplus credits accumulated between January 1, 2016 and September 30, 2016. The Nevada Power's post exit credit obligation is calculated based on MGM and Wynn's retail sales as a percentage of Nevada Power's overall retail sales adjusted to include MGM and Wynn. The resulting percentage is then used to calculate the number of portfolio energy credits from the underlying power purchase agreements to be transferred to MGM and Wynn. The allocation is adjusted to account for Nevada Power's outstanding credit repayment obligation to Sierra. The annual allocation will continue until the last of the contracts included in the R-BTER terminates.

In addition, both companies are entitled to a portion of the PC's from RenewableGeneration incentivized systems ("RENGEN" credits) and PCs from demand side management programs



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

(“DSM” Credits). The table below shows Nevada Power’s actual credit obligation for 2016, and estimated 2017-2020 credit obligation per the terms of the exit agreements.

**Table 3-1 Nevada Power 2016 Actual and 2017-2020 Projected Credit Obligation to MGM and Wynn per the exit agreements**

	2016	2017	2018	2019	2020
<b>MGM</b>					
➤ Non-Solar	0	84,712	83,495	82,548	81,937
➤ Solar	20,543	65,614	64,462	63,735	63,166
➤ RENGEN	3,532	27,533	28,047	27,694	27,395
➤ DSM	185,590	79,661	79,661	79,661	79,661
Total	209,665	257,540	255,665	253,638	252,159
<b>Wynn</b>					
➤ Non-Solar	0	16,942	16,699	16,510	16,387
➤ Solar	3,902	13,123	12,892	12,747	12,633
➤ RENGEN	720	5,511	5,609	5,539	5,479
➤ DSM	36,577	20,441	20,441	20,441	20,441
Total	41,199	56,017	55,641	55,237	54,940

Notes to Table 3-1:

The above 2017-2020 credit totals are all estimates. The exact numbers of credits to be transferred for each period will be determined based on MGM and Wynn’s actual retail load; Nevada Power actual retail sales, and the total number of credits generated by the renewable resource included in the agreement (R-BTER for power purchase and REPR for credits from rebated or RENGEN systems)

Finally, Nevada Power is now in a position to resume the repayment of non-solar, non-DSM credits that it borrowed from the credit joint pool shared with Sierra. Nevada Power will transfer 200,000, 2016 vintage geothermal kPCs to Sierra. These credits are available for Sierra to use in meeting its 2016 RPS credit requirement. Going forward, the repayments will increase to 500,000 kPCs annually during the period 2017-2020, with a final repayment of 183,438 kPCs in 2021. The 2016 repayment reduces Nevada Power’s outstanding credit obligation to Sierra to 2,183,438 kPCs. Please reference Section 3.17. for additional information on the status of the joint credit pool.

### **3.4. 2016 Compliance Outlook**

Looking to the future, Nevada Power’s RPS outlook at the end of 2016 can be summarized as cautiously optimistic. While Nevada Power benefits from a growing renewable generating portfolio, it still does not possess a large surplus of non-DSM credits that it can draw upon if needed. It also must repay 2,183,438 credits that it borrowed from the joint surplus credit pool it shares with Sierra. These credits are to be repaid before Sierra is required to add new renewable resources to meet its RPS commitment. Until its repayment obligation is fully met, events that adversely impact

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

Sierra's compliance outlook by accelerating the need to add new resources also impact Nevada Power. The Company also faces uncertainty relating to energy choice and proposed changes to statutes covering the RPS that are under consideration in 2017 legislative session.

Although Nevada Power is currently positioned to meet its future RPS and repayment commitments (reference Table 5.1.) experience has shown that renewable projects, both operating and pipeline, can sometimes be unpredictable. Depending upon the performance of its current portfolio of projects and changes in law, the company may explore options to purchase additional credits in 2017 to bolster its credit reserves if it can obtain the credits at reasonable terms.

### **3.5. 2016 Surplus Credit Calculation**

Table 3-1 below shows the calculation of the surplus credits required under Nevada Revised Statute 704.7828. Excluding DSM credits, which are subject to limitations; and are likely to have no value other than to Sierra, and recognizing that Nevada Power still has a significant credit repayment obligation to Sierra, Nevada Power ended 2016 with no credits subject to the marketing requirements required under NRS 704.7828

**Table 3-2 Nevada Power 2016 Surplus Carry Forward Test**

---

Surplus Non-DSM, Non-Solar Credits	0
Surplus Solar Credits	468,285
Surplus DSM Credits	<u>3,803,529</u>
Total Surplus Credits	4,271,814
Less DSM Credits	3,803,529
Less Outstanding Joint Pool Repayment	<u>2,183,438</u>
Surplus Unrestricted Credits	0
Projected 2017 Credit Requirement	4,152,544
	10% 415,254
	25% 1,038,136
Credits in Excess of Thresholds	10% 0
	25% 0

The following pages contain the reporting information required by NAC 704.8879 for annual reporting by providers of electric service.<sup>1</sup> For convenience, Nevada Power has listed the specific requirements of the Annual Report as set forth in NAC 704.8879(2).

### **3.6. 2016 Capacity**

NAC § 704.8879(2)(a). The capacity of each renewable energy system owned, operated or controlled by the provider, the total number of kilowatt-hours generated by each such

---

<sup>1</sup> The Annual Report obligations are as set forth in NAC § 704.8879.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

system during the most recently completed compliance year and the percentage of that total amount which was generated directly from renewable energy.

**Table 3-3 Nevada Power 2016 Owned Renewable Energy Capacity**

	<b>Capacity (kW)</b>	<b>2016 Generation (kWh)</b>	<b>2016 Credits (PCs)</b>	<b>% from Renewable Energy</b>
Clark Amonix PV <sup>1</sup>	75	0	0	100%
Pearson PV	12	22,450	22,450	100%
Pearson EV Charging	19	34,383	34,383	100%
Ryan Center PV	115	215,147	215,147	100%
Molasky PV	25	46,771	46,771	100%
Goodsprings <sup>2</sup>	7,500	21,957,811	26,490,720	100%
Nellis Solar Array II <sup>3</sup>	15,000	39,010,000	93,624,000	100%
Totals	22,746	61,286,562	120,433,471	100%

Notes to Table 3-3:

<sup>1</sup> Clark Amonix PV array was out of service in 2016

<sup>2</sup> Credit total includes station usage

<sup>3</sup> Credit total includes the impact of the solar credit multiplier (2.4x)

### **3.7. 2016 New Systems**

NAC § 704.8879(2)(b). Whether, during the most recently completed compliance year, the provider began construction on, acquired or placed into operation any renewable energy system and, if so, the date of any such event.

The provider did not complete nor did construction begin on any renewable energy system. No new renewable energy systems were acquired by the provider and none were placed into operation by the provider.

### **3.8. 2016 Retail Sales**

NAC § 704.8879(2)(c). The total number of kilowatt-hours sold by the provider to its retail customers in this State during the most recently completed compliance year.

The total number of kilowatt-hours sold by Nevada Power in 2016 was 21,581,533,000. This total includes sales to NGR customers which are subject to the RPS requirement.

### **3.9. 2016 RPS Compliance Total and Summary of RPS Sources**

NAC § 704.8879(2)(d). The total number of kilowatt-hours that the provider generated, acquired or saved from portfolio energy systems or efficiency measures during the most

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

recently completed compliance year and, from that total number of kilowatt-hours, subtotals for the number of kilowatt-hours: (1) generated or saved by the provider from its own portfolio energy systems or efficiency measures; (2) acquired by the provider pursuant to long-term portfolio energy credits contracts; (3) acquired by the provider pursuant to long-term renewable energy contracts; (4) acquired by the provider pursuant to short-term portfolio energy credits contracts; (5) acquired by the provider pursuant to short-term renewable energy contracts; (6) acquired or saved by the provider pursuant to energy efficiency contracts; (7) attributable to the provider from solar thermal systems; (8) fed back to the provider from net metering systems used by customer-generators pursuant to NRS 704.766 to 704.775, inclusive; (9) carried forward by the provider from previous compliance years; and (10) saved by the provider as a result of energy efficiency measures installed at service locations of residential customers of the provider for the purposes of paragraph (b) of subsection 2 of NRS 704.7821.

**Table 3-4 Nevada Power 2016 Summary of RPS Sources**

	<b>kWh<sup>1</sup></b> <i>(in 000)</i>
1. Generated or saved from owned portfolio energy systems or efficiency measures	120,434
2. Acquired pursuant to long-term portfolio energy credit contracts	106,964
3. Acquired pursuant to long-term renewable energy contracts	2,753,473
4. Acquired pursuant to short-term portfolio energy credit contracts	3,167
5. Acquired pursuant to short-term renewable energy contracts	0
6. Acquired or saved pursuant to energy efficiency contracts	-- <sup>2</sup>
7. Attributable to the provider from solar thermal systems	236,252
8. Fed back to the provider from net metering systems used by customers	432,021
9. Carried forward from previous compliance years	269,020
10. Saved from energy efficiency measures <sup>3</sup>	863,262
	<b>4,784,593</b>

Notes to Table 3-4:

<sup>1</sup> 1 kWh = 1 PC, 1,000 kWh (1MWh) = 1 kPC, totals reflect the solar distributed generation multiplier where applicable

<sup>2</sup> Amount is included in Row 10.

<sup>3</sup> Amount reflects allowable 20% cap, does not include the carry forward of 3,795,694 approved DSM kPCs in Appendix 5.1.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**3.10. 2016 Credit Sales**

NAC § 704.8879(2)(e). The total number of kilowatt-hours that the provider: (1). Sold as a result of customer participation in a voluntary option to purchase all or a portion of the customer's energy from renewable resources; and (2) Sold pursuant to paragraphs (b) and (c) of subsection 2 of NRS 704.7828.

**Table 3-5 Nevada Power 2016 Voluntary and Excess Credit Sales**

Type of Sale	Total kWh / PCs Sold
Kilowatt-hours sold under a Nevada Green Rider Option 1 or 2 agreement <sup>1</sup> .	3,600,000
Kilowatt-hours sold in excess of 10% but less than 25% of the amount of portfolio energy credits necessary to comply with the subsequent calendar year.	0
Kilowatt-hours sold in excess of 25% of the amount of portfolio energy credits necessary to comply with the subsequent calendar year.	0

Notes to table 3-5

<sup>1</sup>Initial credit transfer of credits from Boulder Solar 1 to the City of Las Vegas under the terms of a three year NGR agreement that was approved by the Commission in Docket No. 15-11026 (43,200 kPCs annually/12 = 3,600 kPCs per month).

**3.11. 2016 Carry Forwards**

NAC § 704.8879(2)(f). The total number of kilowatt-hours that the provider intends to carry forward from the most recently completed compliance year.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Table 3-6 Nevada Power 2016 Carry Forward**

<b>Surpluses</b>	<b>Vintage</b>	<b>kW hrs Solar</b>	<b>kW hrs Non-Solar</b>	<b>kW hrs DSM</b>	<b>kW hrs Total</b>
1 Total Number of kilowatt hours carried from previous year compliance years	2012	0	0	89,322,000	89,322,000
	2013	0	0	1,744,853,000	1,744,853,000
	2014	0	0	1,647,110,000	1,647,110,000
	2015	269,020,000	0	0	269,020,000
	Total	269,020,000	0	3,481,285,000	3,750,305,000
2 Intends to carry forward from the most recently completed compliance year <sup>1</sup> .	2015	0	0	1,407,673,000	1,407,673,000
	2016	468,285,000	0	0	468,285,000
	Total	468,285,000	0	1,407,673,000	1,875,958,000
3 Intends to carry forward as excess from previous year	2013	0	0	748,746,000	748,746,000
	2014	0	0	1,647,110,000	1,647,110,000
	2015	0	0	1,407,673,000	1,407,673,000
	2016	468,285,000	0	0	468,285,000
	Total	468,285,000	0	3,803,529,000	4,271,814,000
<b>Deficiencies</b>					
4 Intends to carry forward as a deficiencies from previous years				Not applicable	
5 Intends to carry forward as deficiencies from the most recently completed				Not applicable	
6 Intends to carry forward as deficiencies from previous year				Not applicable	

Table 3-6 Notes

<sup>1</sup> The 2015 DSM credit total was derived from the 2015 verification and measurement reports which were approved by the Commission in 2016. Reference section 3.17, DSM Contribution, for additional details.

### 3.12. 2017 Estimated Sales

NAC § 704.8879(2)(g). The estimated number of kilowatt-hours that the provider expects to sell to its retail customers in this State during the current compliance year.

The total number of kilowatt-hours expected to be sold by Nevada Power in 2017 is estimated to be 20,762,721,000. This estimate includes sales to NGR customers, but excludes customers who have received Commission approval to purchase their energy from an alternative supplier.

### 3.13. 2017 Estimated Credit Requirement

NAC § 704.8879(2)(h). The estimated number of kilowatt-hours that the provider must generate, acquire or save from portfolio energy systems or efficiency measures to comply



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

with its portfolio standard for the current compliance year, as calculated by the provider pursuant to NAC §704.8877.

**Table 3-7 Nevada Power 2017 Estimated RPS Credit Requirement**

	kWh <sup>1</sup> (in thousands)
Estimated 2017 Retail Sales <sup>2</sup>	20,762,721
20% RPS Requirement	4,152,544
6% Solar Requirement	249,153
20% DSM Allowance	830,509

Notes to Table 3-7:

<sup>1</sup> kWh = 1 PC, 1,000 kWh (1MWh) = 1 kPC

<sup>2</sup> 2017 Estimated Retail Sales include NGR customers sales

### 3.14. 2017 Estimated Costs

NAC § 704.8879(2)(i). If the provider is a utility provider, the estimated costs for the utility provider to comply with its portfolio standard for the current compliance year. If appropriate, the utility provider must report such estimated costs for each major type of cost, such as general and administrative costs and costs for purchased power.

**Table 3-8 Nevada Power 2017 Estimated RPS Compliance Costs**

<u>Renewable Energy</u>	\$
Purchase Power and PC Expenditures	\$322,324,000
Company-Development	0
General & Administrative Expenditures	1,440,000
Company-Owned O&M	858,000
	<u>\$324,622,000</u>
<u>Energy Efficiency &amp; Renewable Generations</u>	
Energy Efficiency Program Expenditures (includes incentives)	\$43,000,000
Energy Efficiency General & Administrative Expenditures (includes M&V)	\$5,645,000

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

SolarGenerations (General, Admininstrative, and Incentive expenditures)	\$12,280,000
WindGenerations (General, Admininstrative, and Incentive expenditures)	\$20,000
	\$60,945,000

Notes to Table 3-8:

Excludes: (1) other ancillary department costs such as legal, contract administration, transmission & accounting, which are not exclusively dedicate to renewable activities, and (2) costs which are included in general rates from prior rate cases.

### 3.15. 2016 Affirmative Showing of RPS Compliance

Per NAC § 704.8879(3), Nevada Power must make an affirmative showing that it complied with its portfolio standard during the most recently completed compliance year.

As described herein, Nevada Power exceeded the RPS credit requirements (20 percent of retail sales and 6 percent of the RPS from solar resources) for the calendar year ending 2016 with 22.2 percent of retail sales met by RPS-eligible resources, of which 36.8 percent of the RPS was met by solar resources.

**Table 3-9 Nevada Power 2016 RPS Compliance Summary**

	kWh <sup>1</sup>
<u>Overall RPS Summary</u>	<i>(in thousands)</i>
Total Credits	4,784,593
20% RPS Requirement <sup>2</sup>	<u>4,316,308</u>
Cumulative RPS Position (+/-)	468,285
<u>Solar Summary</u>	
2016 Solar Credits <sup>3</sup>	727,263
6% Solar Requirement	<u>258,978</u>
Solar RPS Position (+/-)	468,285

Notes to Table 3-9:

<sup>1</sup> 1 kWh = 1 PC, 1,000 kWh (1MWh) = 1 kPC

<sup>2</sup> Based on 2016 retail sales of 21,581,533 MWh

<sup>3</sup> The total solar credit balance above is net of 859,269 solar kPCs that were used beyond the 6% minimum solar requirement to meet the overall RPS credit requirement of 4,316,308 kPCs

Additional detail for 2016 and projected estimates for 2017 and the plan period of 2018 through 2020, including a breakdown by renewable facility, are provided in Appendix 5.1 of this report.

### **3.16. 2016 Attestations**

Since Nevada Power acquired kilowatt-hours from renewable energy systems that are not owned, operated or controlled by it to comply with its portfolio standard during 2016, NAC § 704.8879(4) requires Nevada Power to provide separate attestations from the owner or operator of the renewable energy system that the energy represented by those kilowatt-hours: (a) has not been and will not be sold or otherwise exchanged for compensation or used for credit in any other state or jurisdiction; and (b) has not been and will not be included within a blended energy product certified to include a fixed percentage of renewable energy in any other state or jurisdiction. These individual attestations and a summary table of the attestations are provided in Appendix 5.3.

### **3.17. 2016 Joint Pooling Arrangement with Sierra Status**

As approved by the Commission in Docket No. 08-04002, Nevada Power and Sierra created a joint pool of solar and non-solar PCs that consists of PCs contributed when either company exceeded its respective RPS obligations. Pursuant to the Pooling Agreement, these surplus PCs would be available to either utility if they were unable to meet their RPS obligations in a calendar year, provided that the utility repay to lending utility's account before the lending utility required the PCs for compliance. Nevada Power withdrew a total of 2,772,360 non-solar kPCs and 21,431 solar kPCs from the pool in 2007, 2008 and 2009. Nevada Power began repayment of its obligation to the pool in 2011 and 2012 was able to completely replenish all solar PCs it had borrowed from Sierra. Nevada Power repaid 200,000 non-solar, non-DSM kPCs to pool for the benefit of Sierra in 2016. Nevada Power intends to transfer 500,000 kPCs each year for the period 2017-2020 to the pool for the benefit of Sierra with a final transfer of 183,438 kPCs in 2021. Accordingly, the respective non-solar and solar balances in the Joint Pool are as shown in the following table:

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

**Table 3-10 Nevada Power Joint Pool Accounting**

Nevada Power Credits in Pool	kPCs
<hr/>	
<u>Total Non-Solar/Non-DSM Account Balance</u>	
Starting 2016 Non-Solar/Non-DSM Balance <sup>1</sup>	0
Surplus Non-Solar/Non-DSM Credits Deposited <Withdrawn> in 2016	200,000
Repayment of Surplus Non-Solar/Non-DSM Credits	-200,000
Net Surplus/(Deficit)	<hr/> 0
<u>Total Solar Account Balance</u>	
Starting 2016 Solar Credits Balance <sup>1</sup>	269,020
Surplus Solar Credits Deposited <Withdrawn> in 2016	199,265
Repayment of Surplus Credits	0
Net Surplus/(Deficit)	<hr/> 468,285
<b>Nevada Power Credits Owed to Sierra in Pool</b>	<b>kPCs</b>
<hr/>	
<u>Non-Solar/Non-DSM Account Obligation</u>	
Non-Solar/ <u>Non-DSM</u> Credits Owed	2,383,438
Non-Solar/ <u>Non-DSM</u> Credits Repaid to Pool in 2016	-200,000
Ending Balance	<hr/> 2,183,438
<u>Solar Account Obligation</u>	
Solar Credits Owed	0
Solar Credits Repaid to Pool in 2016	0
Ending Balance	<hr/> 0

Notes to Table 3-10:

<sup>1</sup> See Docket No. 15-03042, Table 3-8 for beginning and ending balances

### **3.18. 2016 DSM Contribution**

The Commission's Order in Docket No. 16-04003 issued on April 27, 2016 authorized the carry forward of 3,481,285 pre-2015 demand-side-management kPCs. The 2015 compliance year resulted in an additional 1,407,673 DSM-derived kPCs from demand side management programs based on the approved verification and measurement reports as calculated in a spreadsheet provided in Appendix 5.9. Collectively, these two totals will provide more than a sufficient number of portfolio credits to fill the 20 percent of credits from efficiency measures that is allowable to meet the current year's RPS credit standard. Credits from approved pre-2016 DSM filings that are in excess of the allowed 20 percent DSM limit will be banked and applied towards Nevada Power's 2017 compliance.

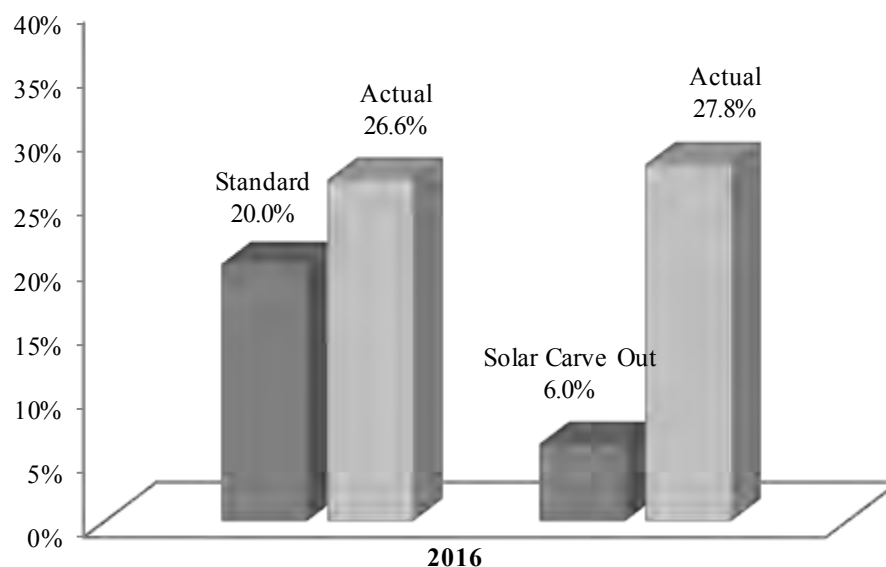
It is important to note that for purposes of this report the certification of credits earned in 2016 from demand-side and efficiency measures are currently not required to provide the full 20 percent contribution for compliance year 2016. As it has done for the past four years, Nevada Power will delay the certification of the DSM PC's earned in calendar year 2016 and any of the associated carry forward of unused 2016 DSM-derived credits until the filing of its Annual Compliance Report for the year 2017 in the spring of 2018. By that time, the Commission will have determined whether the measurement and verification report for DSM program year 2016 have been accepted or approved. This will enable the 2017 compliance filing to contain all of the approved or accepted measurement and verification results that are necessary to make a decision as to the amount of DSM-derived PCs that can be used for compliance from 2016. This change will reduce the cost of litigation in this filing by shortening the time the docket remains open and eliminates the additional expense of a separate hearing in January 2018 to address the 2017 DSM carry forward. Unless the Commission directs otherwise, the company will continue this process of delaying the approval of the annual DSM carry forward to include DSM credits from the previous year as long as the carry forward from the prior year is adequate to provide the full DSM percentage contribution allowable under the statutes for compliance from DSM-derived portfolio credits.

## 4. Sierra Annual Report Requirements

### 4.1. Overview

Sierra exceeded both the 2016 RPS requirement and the 2016 solar RPS requirement (20 percent of retail sales from RPS-eligible resources and 6 percent of the RPS from solar resources) ending 2016 at 27.6 percent and 27.8 percent respectively. The RPS percentages shown below are based on overall credit requirement of 1,667,700 kPCs and a total of 2,214,382 eligible credits. The solar RPS percentage is based on a solar requirement of 100,062 and a total of 462,943 eligible solar credits. Ignoring DSM credits, SPPC will end 2016 with a net surplus of 546,682 kPCs, 183,801 non-solar, non-DSM kPCs and 362,881 solar kPCs.

**Figure 3 Sierra Pacific Power RPS Percentage Overall & Solar**



### 4.2. NV GreenEnergy Rider Tariff

In 2013 Sierra implemented the NGR. The NGR is a voluntary program open to Sierra's customers. Option 1 of the tariff allows customers of any class to purchase either 50 percent or 100 percent of their energy needs from renewable resources. Option 2 allows customers of GS-2 class or larger to enter into a special contract with Sierra for the environmental attributes produced by a specific renewable resource.

As of December 31, 2016, 19 customers were enrolled in Option 1 of the tariff and under the terms of the tariff Sierra will retire 301,971 PCs separately and in addition to credits retired under the RPS. Sierra billed a total of \$13,776.26 dollars in 2016 under the tariff. The offsetting expense incurred to administer Option 1 of the tariff was de minimis. Appendix 5.4 is a detailed schedule showing NGR Option 1 customers by class and listing the total dollars billed under the tariff in 2016.



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

Sierra has two customers, Apple and Switch, with which it has entered into an Option 2 NGR agreement. Under the first agreement, Apple is now receiving the renewable energy credits from Fort Churchill Solar Array which commenced operation in August 2015. Per the agreement, Sierra receives an annual ground lease payment and will operate the facility. The energy generated by the new Fort Churchill Solar Array is delivered to Sierra's system. Apple retains ownership of the renewable credits associated with the generation. The credits are used by Apple to offset its data center energy consumption. The Fort Churchill lease agreement was approved by the Commission in Docket No. 13-07005. In 2016, the solar array generated 39,834 MWh of energy, with an equal number of renewable credits transferred to Apple. Table 4.6 in Section 4.11., Credit Sales, summarizes all credits committed by Sierra in 2016 under both Option 1 and Option 2 of the NGR tariff.

Subsequent to Fort Churchill NGR, Apple and Sierra entered into a second NGR transaction for 50 MW from the new solar photovoltaic project Boulder Solar 2 located in Clark County, Nevada. This agreement was approved by the Commission in Docket No. 15-11025. Boulder Solar 2 began delivering test energy in December 2016 with the project successfully completed commissioning on January 27, 2017.

Sierra is seeking Commission approval to enter into a third NGR agreement with Apple for the renewable credits from a new renewable project, Techren Solar 2 (reference Docket No. 17-02008). Techren Solar 2 is a 200 MW photovoltaic project that will be constructed in Boulder City, Nevada. If approved, the project is expected to begin delivering renewable credits to Apple to retire for the benefit of its Nevada-based data centers starting in late December 2018.

In 2015 Sierra entered into an NGR agreement with Switch for 65 percent of the output from a new 79 MW photovoltaic project, Switch Station 2, located in Clark County, Nevada. The agreement was approved by the Commission in Docket No. 15-11025. The balance of the renewable attributes from the project assigned to Switch under a companion agreement with Nevada Power.

In 2016, Switch received Commission approval to purchase its energy, capacity and/or ancillary services from a provider of new electric serviced for its operations in the service territories of both Utilities. Switch's exit application was approved in Docket No. 16-09023. Switch is expected to begin purchasing its energy from an alternative supplier in Q2 2017. The order directs Switch to seek assignment of the agreement between Nevada Power and Sierra Pacific Power for Switch Station 2.

Related to the above, Sierra transferred 268,099 kPCs to Switch per a Portfolio Energy Credit Sale Agreement that was approved by the Commission in Docket No. 15-11029. The intent of the sale was to assist Switch in achieving its renewable objectives. This and other credit transfers are reported below in Section 4.11., Credit Sales.

#### **4.3. 2016 Other Credit Obligations**

In 2010, Sierra received authority to transfer control of the assets and operations comprising its California electric distribution system to California Pacific Electric Company, LLC ("CalPeco") now Liberty Utilities ("Liberty"). As a result of this transfer Sierra no longer has a California RPS obligation. Under the first agreement, Sierra was obligated to supply Liberty equal to 20% of its California RPS requirement for the period 2011-2015. A follow up agreement for the period 2016-2022 was executed in 2015. Under the terms of the follow up agreement, the number of California eligible renewable energy credits supplied by Sierra to Liberty would be determined based upon Liberty's internal renewable capacity and the compliance year. Based on Liberty's notice to Sierra

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

to install 60 MW of new solar, Sierra's 2016 credit obligation to Liberty is set at 23 percent; its 2017 obligation is set at 3.5%; its 2018 obligation at zero, and its 2019 obligation is set at 2%. Assuming that Liberty does not exercise an option to purchase energy from an alternative supplier, Sierra's 2020 obligation would be set at 4.5%.

#### **4.4. 2016 Compliance Outlook**

Sierra has a long, established history of providing renewable energy to its customers since the development of small hydro-powered plants in the early 1900s and geothermal plants in the 1980s. This history has benefited Sierra in that its ability to meet a growing RPS has never been in jeopardy. Sierra's challenge going forward, like Nevada Power's, is how best to approach planning given the heightened amount of uncertainty. A post energy choice environment coupled with potential changes in law surrounding RPS requirement and credit eligibility could suddenly shift Sierra's compliance outlook. Nevada Power's challenge has been how to build a robust portfolio of renewable projects; Sierra's is now about how to maintain its portfolio of mature projects with approaching contract end dates. While Sierra has been able to mitigate some of this risk with its ability to carry forward excess PCs, and now with credit repayments by Nevada Power, it still must continue to monitor the renewable portfolio for unexpected events that might hinder continued successful operation of existing facilities or changes in law which could shift its credit requirement. Until some of the current uncertainty is clarified, Sierra will take a cautious approach by negotiating short-term contract extensions where it is in the customer's best interest and by exploring options to purchase credits to bolster its credit reserves provided it can obtain those credits at reasonable terms.

#### **4.5. 2016 Surplus Credit Calculation**

Table 4-1 below shows the calculation of the surplus credits required under Nevada Revised Statutes 704.7828. DSM credits, which are subject to limitations and likely have no value other than to Nevada Power. After this adjustment, Sierra will end 2016 with a surplus of 117,483 kPCs, which exceeds the 25 percent threshold of 429,199 kPCs. As required per statute, Sierra will issue a reverse RFP in 2017 similar to the one offered in 2016 to market these credits.

**Table 4-1 Sierra 2016 Surplus Carry Forward Test**

Surplus Non-DSM, Non-Solar Credits	183,801
Surplus Solar Credits	362,881
Surplus DSM Credits	<u>892,935</u>
Total Surplus Credits	1,439,617
Less DSM Credits	<u>892,935</u>
Surplus Unrestricted Credits	546,682
Estimated 2017 Credit Requirement	1,716,796
10%	171,680
25%	429,199

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

Credits in Excess of Thresholds	10%	375,002
	25%	117,483

#### **4.6. 2015 Surplus Marketing Efforts & Outcome**

Nevada Revised Statute 704.7828 requires that if surplus credits from a given year exceed more than 10 percent but less than 25 percent of the amount of portfolio credits necessary to comply with the portfolio standard for the subsequent year, the provider may sell any credits in excess of the 10 percent of the amount of portfolio energy credits necessary to complete with its portfolio standard for the subsequent year. The statute also states that if surplus credits from a given year exceed more than 25 percent of the amount of portfolio credits necessary to comply with the portfolio standard for the subsequent year, the provider shall use reasonable efforts to sell any credits in excess of the 25 percent of the amount of portfolio energy credits necessary to complete with its portfolio standard for the subsequent year.

Sierra ended 2015 with a surplus credit balance of 1,705,491 kPCs. This surplus balance is composed of non-solar, non-DSM credits, solar credits and DSM credits. The table below shows the calculations the company used to determine Sierra's excess credit balance to market under the statute.

**Table 4-2 Sierra 2015 Surplus Calculation**

Surplus Non-DSM, Non-Solar Credits		634,479
Surplus Solar Credits		293,896
Surplus DSM Credits		<u>777,116</u>
Total Surplus Credits		1,705,491
Less DSM Credits		777,116
Less Credits Committed to Switch		<u>268,099</u>
Surplus Unrestricted Credits		660,276
2016 Credit Requirement ( <u>per the 2015 filing</u> )		1,638,246
	10%	163,825
	25%	409,562
Credits in Excess of Thresholds	10%	496,451
	25%	250,714

Sierra chose not to include surplus DSM credits totaling 777,116 kPCs in the above calculation. This classification of credits is subject to the statute, scheduled to be phased-out, and cannot be used to meet RPS compliance in neighboring states. Because of these reasons, Sierra believes the market value of these credits to be de minimis to any entity other than Sierra or Nevada Power. In deciding which 250,714 surplus credits to offer up for sale, Sierra offered credits with the greatest marketability: Net, WREGIS and NVTREC certified, with both CEC and PUCN certification and for the first time station usage which have a zero or extremely low cost basis. Such credits should attract the greatest number of buyers which should translate into higher bid prices.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

Sierra issued a reverse RFP on October 18, 2016 to solicit offers from interested parties wishing to purchase unbundled PCs from Sierra. The offer was issued to NVE's regular energy trading partners, renewable energy credit brokers, and utilities in California that are subject to California's RPS. Appendix 5.5 is the copy of the offer including all terms and conditions and a breakdown of the 250,714 surplus credits offered up for bid by technology, state certification and vintage. Appendix 5.6 is a distribution list of recipients who received the offer.

The company received a total of three bids. Table 4-3 below summarizes the three 2016 RFP bids. A copy of the bid response is included in Confidential Appendix 5.7.

**Table 4-3 Sierra 2016 Reverse RFP Bid Results Summary**

					BIDDER					
					1		2		3	
Vintage	Certification	Registy	Type	Credits Available (kPCs)	Qty	Price	Qty <sup>1</sup>	Price	Qty	Price
2015	NV & CA	WREGIS	Net, Geo	250,714			25,000	\$ 0.50	239,786	\$ 0.50
2012	NV	NVTREC	SU Solar	5,668	5,668	\$ 10.00				
2013	NV	NVTREC	SU Solar	5,260	1,832	\$ 10.00				
					7,500		25,000		239,786	
					Total \$s	\$ 75,000	Total \$s	\$ 12,500	Total \$s	\$ 119,893

Notes to Table 4-3:

<sup>1</sup> Bidder 2 specified that the credits sold must be Green-e eligible

The dollar value of the three bids ranged from \$12,500 to \$119,893.

In deciding whether to accept or reject each of the bids, the decision centered on the impact to Sierra's customers. Rather than speculating on whether the company could obtain replacement credits in the future at a lower cost, the company simply looked at whether the price offered exceeded Sierra's cost to obtain the PCs. To calculate the credit premium, the company compared the cost per MWh paid to acquire the energy and credits verses the spot delivery prices for the same time period based on the average market price per MW hour per the published Intercontinental Exchange (ICE) hub delivery prices COB (North) and Mead (south). The company also considered the impact that selling the credits would have on Sierra's near-term compliance outlook. In the case of the above bids, only one bid, bid 1, meet both tests. The price bid exceeded Sierra's cost of acquiring the credits, and the numbers of credits sold has no significant impact on Sierra's ability to meet its future RPS requirements. With or without this sale, Sierra is forecasted to meet the RPS through 2020. It is for these reasons, Sierra choose to pursue the offer and execute the sale. The full \$75,000 from the sale of the credits was passed on for the benefit of Sierra's customers. The results of the cost test are shown in Confidential Appendix 5.8.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

The following pages contain the reporting information required by Section 704.8879 of the Nevada Administrative Code for annual reporting by providers of electric service.<sup>2</sup> For convenience, Sierra has listed the specific requirements of the Annual Report as set forth in Clause (2) of NAC § 704.8879.

**4.7. 2016 Capacity**

NAC § 704.8879(2)(a). The capacity of each renewable energy system owned, operated or controlled by the provider, the total number of kilowatt-hours generated by each such system during the most recently completed compliance year and the percentage of that total amount which was generated directly from renewable energy.

**Table 4-4 Sierra 2016 Owned Renewable Energy Capacity**

	Capacity (kW)	2016 Generation (kWh)	2016 Credits (PCs)	% from Renewable Energy
Sierra Plaza Fixed PV	75	138,079	138,079	100%
Sierra Plaza Wind	10	886	886	100%
Sierra Plaza Tracking PV	1	3,655	3,655	100%
Fleet Building Solar	75	126,337	126,337	100%
	161	268,957	268,957	100%

**4.8. 2016 New Systems**

NAC § 704.8879(2)(b). Whether, during the most recently completed compliance year, the provider began construction on, acquired or placed into operation any renewable energy system and, if so, the date of any such event.

The provider did not complete nor did construction begin on any renewable energy system. No new renewable energy systems were acquired by the provider and none were placed into operation by the provider.

**4.9. 2016 Retail Sales**

NAC § 704.8879(2)(c). The total number of kilowatt-hours sold by the provider to its retail customers in this State during the most recently completed compliance year.

The total number of kilowatt-hours sold by Sierra in 2016 was 8,338,498,000. This total includes sales to NGR customers which are subject to the RPS requirement.

---

<sup>2</sup> The Annual report obligations are as set forth in NAC § 704.8879.

#### 4.10. 2016 RPS Compliance Total and Summary of RPS Sources

NAC § 704.8879(2)(d). The total number of kilowatt-hours that the provider generated, acquired or saved from portfolio energy systems or efficiency measures during the most recently completed compliance year and, from that total number of kilowatt-hours, subtotals for the number of kilowatt-hours: (1) generated or saved by the provider from its own portfolio energy systems or efficiency measures; (2) acquired by the provider pursuant to long-term portfolio energy credits contracts; (3) acquired by the provider pursuant to long-term renewable energy contracts; (4) acquired by the provider pursuant to short-term portfolio energy credits contracts; (5) acquired by the provider pursuant to short-term renewable energy contracts; (6) acquired or saved by the provider pursuant to energy efficiency contracts; (7) attributable to the provider from solar thermal systems; (8) fed back to the provider from net metering systems used by customer-generators pursuant to NRS 704.766 to 704.775, inclusive; (9) carried forward by the provider from previous compliance years; and (10) saved by the provider as a result of energy efficiency measures installed at service locations of residential customers of the provider for the purposes of paragraph (b) of subsection 2 of NRS 704.7821.

**Table 4.5 Sierra 2016 Summary of RPS Sources**

	kWh <sup>1</sup> (in 000)
1. Generated or saved from owned portfolio energy systems or efficiency measures	269
2. Acquired pursuant to long-term portfolio energy credit contracts	7,850
3. Acquired pursuant to long-term renewable energy contracts	767,247
4. Acquired pursuant to short-term portfolio energy credit contracts	0
5. Acquired pursuant to short-term renewable energy contracts	0
6. Acquired or saved pursuant to energy efficiency contracts	-- <sup>2</sup>
7. Attributable to the provider from solar thermal systems	43,915
8. Fed back to the provider from net metering systems used by customers	133,665
9. Carried forward from previous compliance years	927,896
10. Saved from energy efficiency measures <sup>3</sup>	333,540
	2,214,382

Notes to Table 4-5:



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

<sup>1</sup> 1 kWh = 1 PC, 1,000 kWh (1MWh) = 1 kPC, totals reflect the solar distributed generation multiplier where applicable

<sup>2</sup> Amount is included in Row 10.

<sup>3</sup> Amount reflects allowable 20% cap, does not include the carry forward of 892,935 DSM kPCs shown in Appendix 5.2.

**4.11. 2016 Credit Sales**

NAC § 704.8879(2)(e). The total number of kilowatt-hours that the provider: (1). Sold as a result of customer participation in a voluntary option to purchase all or a portion of the customer's energy from renewable resources; and (2) Sold pursuant to paragraphs (b) and (c) of subsection 2 of NRS 704.7828.

**Table 4.6 Sierra 2016 Voluntary and Excess Credit Sales**

Type of Sale	Total kWh / PCs Sold
Kilowatt-hours Sold under a Nevada Green Rider Option 1 or 2 agreement. <sup>1</sup>	308,235,328
Kilowatt-hours sold in excess of 10% but less than 25% of the amount of portfolio energy credits necessary to comply with the subsequent calendar year	0
Kilowatt-hours sold in excess of 25% of the amount of portfolio energy credits necessary to comply with the subsequent calendar year	7,500,000

Notes to Table 4.6:

<sup>1</sup> 301,971 PCs sold under NGR Option 1, 39,834,357 PCs sold under NGR Option 2 agreement between Apple, Inc. & Sierra (Fort Churchill Solar Array) and 268,099,000 PCs sold to Switch under a one-time sale agreement

**4.12. 2016 Carry Forwards**

NAC § 704.8879(2)(f). The total number of kilowatt-hours that the provider intends to carry forward from the most recently completed compliance year.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Table 4.7 Sierra Carry Forward**

<b>Surpluses</b>		Vintage	kW hrs Solar	kW hrs Non-Solar	kW hrs DSM	kW hrs Total
1	Total Number of kilowatt hours carried from previous year compliance years	2011	57,768,000	0	0	57,768,000
		2012	47,652,000	0	0	47,652,000
		2013	42,429,000	0	250,253,000	292,682,000
		2014	43,368,000	0	526,863,000	570,231,000
		2015	102,679,000	633,999,000	0	736,678,000
		Total	293,896,000	633,999,000	777,116,000	1,647,243,000
2	Intends to carry forward from the most recently completed compliance year <sup>1</sup> .	2015	0	0	449,359,000	449,359,000
		2016	138,790,000	183,801,000	0	322,591,000
		Total	138,790,000	183,801,000	449,359,000	771,950,000
3	Intends to carry forward as excess from previous year	2011	57,768,000	0	0	57,768,000
		2012	41,982,000	0	0	41,982,000
		2013	40,599,000	0	0	40,599,000
		2014	43,368,000	0	443,576,000	486,944,000
		2015	40,374,000	0	449,359,000	489,733,000
		2016	138,790,000	183,801,000	0	322,591,000
		Total	362,881,000	183,801,000	892,935,000	1,439,617,000
<b>Deficiencies</b>						
4	Intends to carry forward as a deficiencies from previous years			Not applicable		
5	Intends to carry forward as a deficiencies from most recent compliance			Not applicable		
6	Intends to carry forward as deficiencies from previous year			Not applicable		

Notes to Table 4-7:

<sup>1</sup> The 2015 DSM credit total was derived from the 2015 verification and measurement reports which were approved by the Commission in 2016. Reference section 4.19, DSM Contribution, for additional details.

#### **4.13. 2017 Estimated Sales**

NAC § 704.8879(2)(g). The estimated number of kilowatt-hours that the provider expects to sell to its retail customers in this State during the current compliance year.

The total number of kilowatt-hours expected to be sold by Sierra Pacific Power in 2017 is estimated to be 8,583,982,000. This estimate includes sales to NGR customers, but excludes sales to customers who have received Commission approval to purchase their energy from an alternative supplier.

#### **4.14. 2017 Estimated Credit Requirement**

NAC § 704.8879(2)(h). The estimated number of kilowatt-hours that the provider must generate acquire or save from portfolio energy systems or efficiency measures to comply

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

with its portfolio standard for the current compliance year, as calculated by the provider pursuant to NAC § 704.8877.

**Table 4.8 Sierra 2017 Estimated RPS Credit Requirement**

	<b>kWh<sup>1</sup></b> <i>(in thousands)</i>
Estimated 2017 Retail Sales	8,583,982
20% RPS Requirement	1,716,976
6% Solar Requirement	103,008
20% DSM Allowance	343,359

Notes to Table 4-8:

<sup>1</sup> 1 kWh = 1 PC, 1,000 kWh (1MWh) = 1 kPC

**4.15. 2017 Estimated Costs**

NAC § 704.8879(2)(h). If the provider is a utility provider, the estimated costs for the utility provider to comply with its portfolio standard for the current compliance year. If appropriate, the utility provider must report such estimated costs for each major type of cost, such as general and administrative costs and costs for purchased power.

**Table 4.9 Sierra 2017 Estimated RPS Compliance Costs**

<u>Renewable Energy</u>	<b>\$</b>
Purchase Power and PC Expenditures	\$70,071,619
Company-Development	0
General & Administrative Expenditures	480,000
Company-Owned O&M	0
	<u>\$70,551,619</u>
<u>Energy Efficiency &amp; Renewable Generations</u>	
Energy Efficiency Program Expenditures (includes incentives)	\$11,700,000
Energy Efficiency General & Administrative Expenditures (includes M&V)	1,753,000

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

SolarGenerations (includes General, Admininstrative, and Incentive expenditures)	4,588,000
HydroGenerations (includes General, Admininstrative, and Incentive expenditures)	690,000
WindGenerations (includes General, Admininstrative, and Incentive expenditures)	20,000
	\$18,751,000

Notes to Table 4-9:

Excludes: (1) other ancillary department costs such as legal, contract administration, transmission & accounting, which are not exclusively dedicate to renewable activities, and (2) costs which are included in general rates from prior rate cases.

#### **4.16. 2016 Affirmative Showing of RPS Compliance**

Per Section 704.8879(3) of the Nevada Administrative Code, Nevada Power must make an affirmative showing that it complied with its portfolio standard during the most recently completed compliance year.

As described herein, Sierra exceeded the RPS credit requirements (20 percent of retail sales and 6 percent of the RPS from solar resources) for the calendar year ending 2016 with 27.7 percent of retail sales met by RPS-eligible resources and 27.8 percent of the RPS met by solar resources.

**Table 4.10 Sierra 2016 RPS Compliance Summary**

	<b>kWh<sup>1</sup></b>
<u>Overall RPS Summary</u>	<u>(in thousands)</u>
Total Credits	2,214,382
20% RPS Requirement <sup>2</sup>	1,667,700
Cumulative RPS Position (+/-)	546,682
<u>Solar Summary</u>	
2015 Solar Credits	462,943
6% Solar Requirement	100,062
Solar RPS Position (+/-)	362,881

Notes to Table 4-10:

<sup>1</sup> 1 kWh = 1 PC, 1,000 kWh (1MWh) = 1 kPC

<sup>2</sup> Based on 2016 retail sales of 8,338,498 MWh

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

Additional detail for 2016 and projected estimates for 2017 and the plan period of 2018 through 2020, including a breakdown by renewable facility, are provided in Appendix 5.2. of this report.

**4.17. 2016 Attestations**

Since Sierra acquired kilowatt-hours from renewable energy systems that are not owned, operated or controlled by it to comply with its portfolio standard during 2016, NAC § 704.8879(4) requires Sierra to provide separate attestations from the owner or operator of the renewable energy system that the energy represented by those kilowatt-hours: (a) has not been and will not be sold or otherwise exchanged for compensation or used for credit in any other state or jurisdiction; and (b) has not been and will not be included within a blended energy product certified to include a fixed percentage of renewable energy in any other state or jurisdiction. These individual attestations and a summary table of the attestations are provided in Appendix 5.3.

**4.18. 2016 Joint Pooling Arrangement with Nevada Power Status**

As approved by the Commission in Docket No. 08-04002, Nevada Power and Sierra created a joint pool of solar and non-solar PCs that consists of PCs contributed when either company exceeded its respective RPS obligations. Pursuant to the Pooling Agreement, these surplus PCs would be available to either Utility if they were unable to meet their RPS obligations in a calendar year, provided that the Utility repay to lending Utility's account before the lending utility required the PCs for compliance. Nevada Power withdrew a total of 2,772,360 non-solar kPCs and 21,431 solar kPCs from the pool in 2007, 2008 and 2009. Nevada Power began repayment of this obligation to Sierra in 2011 with 143,922 non-solar kPCs and 21,431 solar kPCs which left Nevada Power with a balance of 2,628,438 non-solar kPCs. The solar obligation was completely met in 2011 when Nevada Power deposited 21,431 kPCs in Sierra's account. Nevada Power paid back 200,000 non-solar, non-DSM kPCs to the joint pool in 2016. Nevada Power plans on repaying 500,000 kPC annually for the period 2017-2020 with a final repayment of 183,438 kPCs in 2021. Accordingly, the respective non-solar and solar balances in the Joint Pool are as shown in the following Table:

**Table 4.11 Sierra Joint Pool Accounting**

<b>Sierra Credits in Pool</b>	<b>kPCs</b>
<hr/>	
<u>Total Non-Solar/Non-DSM Account Balance</u>	
Starting Non-Solar/Non-DSM Balance <sup>1</sup>	634,000
Net Surplus Non-Solar/Non-DSM Credits Deposited / <Withdrawn> in 2016	< 650,199 >
Repayment of Surplus Non-Solar/Non-DSM Credits by NPC in 2016	200,000
Net Surplus/(Deficit)	183,801

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Total Solar Account Balance**

Starting Solar Credits Balance <sup>1</sup>	293,896
Surplus Solar Credits Deposited <Withdrawn> in 2016	68,985
Repayment of Surplus Credits	0
Net Surplus/(Deficit)	<u>362,881</u>

**Nevada Power Credits Owed to Sierra in Pool**

**kPCs**

**Non-Solar/Non-DSM Account Obligation**

Non-Solar/ <u>Non-DSM</u> Credits Owed <sup>1</sup>	(2,383,438)
Non-Solar/ <u>Non-DSM</u> Credits Repaid to Pool in 2016	200,000
Ending Balance	<u>(2,183,438)</u>

**Solar Account Obligation**

Solar Credits Owed <sup>1</sup>	0
Solar Credits Repaid to Pool in 2016	0
Ending Balance	<u>0</u>

Notes to Table 4-11:

<sup>1</sup> See Docket No. 15-03042, Table 4-10 for beginning and ending balances

#### **4.19. 2016 DSM Contribution**

The Commission's Order in Docket No. 16-04003 issued April 27, 2016 authorized the carry forward of 777,116 pre-2014 demand-side-management kPCs. The 2015 compliance year resulted in an additional 449,359 DSM-derived kPCs from demand side management programs based on the approved verification and measurement reports as calculated in a spreadsheet provided in Appendix 5.9. Collectively, these two totals will provide more than a sufficient number portfolio credits to fill the 20 percent of credits from efficiency measures that is allowable to meet the current year's RPS credit standard. Credits from approved, pre-2016 DSM filings that are in excess of the allowed 20 percent DSM limit will be banked and applied towards Sierra's 2017 compliance.

It is important to note that for purposes of this Compliance Report the certification of credits earned in 2015 from demand-side and efficiency measures are currently not required to meet the full 20 percent contribution for compliance year 2016. As Sierra has done for the past four years, it will delay the certification of the DSM PC's earned in calendar year 2016 and any of the associated carry forward of unused 2015 DSM-derived credits until the filing of its Annual Compliance Report for the year 2017 in the spring of 2018. By that time, the Commission will have determined whether the measurement and verification report for DSM program year 2016 have been accepted or approved. This will enable the 2017 Compliance filing to contain all of the approved or accepted measurement and verification results that are necessary to make a decision as to the amount of DSM-derived PCs that can be used for compliance from 2016. This change will reduce the cost of litigation in this filing by shortening the time the Docket remains open and eliminates the additional expense of a separate hearing in January 2018 to address the 2016 DSM carry forward. Unless the Commission directs otherwise, Sierra will continue this process of delaying the approval of the annual DSM carry forward to include DSM credits from the previous year as long as the carry forward from the prior year is adequate to provide the full DSM percentage contribution allowable under the statutes for compliance from DSM-derived portfolio credits.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

## 5. Appendix

### 5.1. Nevada Power Projected Portfolio Standard Requirements and Supplies

Appendix 5.1, Table 5-1 Nevada Power Summary Table

Nevada Power / NV Energy South	Actual	Projected <sup>a</sup>			
	2016	2017	2018	2019	2020
Retail Sales (MWhs)	21,581,533	20,762,721	21,183,120	21,452,841	21,687,236
RPS %	20%	20%	20%	20%	22%
Total Credit Requirement	4,316,308	4,152,544	4,236,624	4,290,568	4,771,192
Non-Technology Specific PC Requirement	4,057,330	3,903,391	3,982,427	4,033,134	4,484,920
Solar Specific PC Requirement (6%)	258,978	249,153	254,197	257,434	286,272
DSM Allowance (20% 2015-2019, 10% 2020)	863,262	830,509	847,325	858,114	477,119
<b>Geothermal</b>					
Desert Peak 2, Net	84,145	72,323	78,307	78,307	78,522
Desert Peak 2, SU	25,679	7,318	11,159	11,159	11,190
Faulkner 1, Net	236,374	240,115	240,115	240,115	240,773
Faulkner 1, SU	92,422	38,125	38,125	38,125	38,230
Galena 2, Net	38,600	43,139	43,139	43,139	43,257
Galena 2, SU	26,108	3,353	3,353	3,353	3,362
Jersey Valley, Net	71,773	74,216	74,216	74,216	74,419
Jersey Valley, SU	36,469	15,293	15,293	15,293	15,335
McGinness Hills, Net	759,203	712,284	712,284	712,284	714,235
McGinness Hills, SU	149,091	110,692	110,692	110,692	110,995
Salt Wells, Net	103,410	107,530	107,530	104,305	104,590
Salt Wells, SU	38,571	21,945	21,945	20,861	20,918
Stillwater II, Net	174,249	148,432	148,432	154,942	155,367
Stillwater II, SU	52,019	70,107	70,107	70,107	70,299
Tuscarora, Net	133,481	141,552	141,552	141,552	141,940
Tuscarora, SU	52,651	26,968	26,968	26,968	27,042
Tuscarora Expansion Option (Net)	0	0	0	35,328	70,970
Tuscarora Expansion Option (SU)	0	0	0	6,742	13,521
2009 Ormat SPPC/NPC PC Transfer Agreement	b. 19,710	19,710	19,710	19,710	19,710
	2,093,955	1,853,101	1,862,928	1,907,199	1,954,674
<b>Solar</b>					
Crescent Dunes, Net	127,647	484,972	484,972	484,972	486,300
Crescent Dunes, SU	15,281	43,647	43,647	43,647	43,767
Nevada Solar One, Net	81,035	80,114	80,114	80,114	80,333
Nevada Solar One, SU	12,289	8,970	8,970	8,970	8,994
Apex Solar, Net	52,232	51,384	51,384	51,384	51,525
Apex Solar, SU	218	975	975	975	978
Boulder Solar I	23,738	289,288	288,565	287,842	287,905
Mountain View Solar, Net	53,005	52,840	52,840	52,840	52,985
Mountain View Solar, SU	1,767	1,057	1,057	1,057	1,060
Nellis Solar II, Net	39,010	41,937	41,832	41,727	41,736
Nellis Solar II Multiplier Credits (1.4x)	54,614	58,712	58,565	58,418	58,430
Searchlight Solar, Net	48,624	43,187	47,509	47,509	47,639
Searchlight Solar, SU	0	648	648	648	650
Silver State Solar, Net	117,547	125,202	125,202	125,202	125,545
Silver State Solar, SU	1,959	7,256	7,256	7,256	7,276
Spectrum, Net	81,824	82,776	82,776	82,776	83,003
Spectrum, SU	305	1,109	1,109	1,109	1,112
Stillwater 2 Solar, Net	35,364	38,247	38,247	41,159	41,272
Stillwater 2 Solar, SU	76,345	57,623	57,623	57,623	57,781
Techren Solar I	0	0	0	285,952	285,875
Fremont MS, Credit Only	122	122	122	122	122
Nellis AFB Solar Star, Credit Only	73,816	70,122	69,772	69,423	69,265
SunPower - LV Water District (six sites), Credit Only	13,438	11,987	11,927	11,867	11,840
ProCaps Laboratory (Covered Parking, 2 Roof Top Systems)	3,167	0	0	0	0
	913,347	1,552,175	1,555,112	1,842,592	1,845,393



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Table 5-1 - Nevada Power Summary Table-Continued**

	Actual	Projected <sup>a</sup>			
	2016	2017	2018	2019	2020
<b>Landfill Gas:</b>					
CC Landfill Energy, Net	29,633	28,221	28,221	28,221	28,299
CC Landfill Energy, SU	7,128	9,700	9,700	9,700	9,727
Lockwood, Net	25,509	24,528	24,528	24,528	24,595
Lockwood, SU	1,040	1,217	1,217	1,217	1,221
	63,310	63,666	63,666	63,666	63,842
<b>Waste Heat</b>					
Goodsprings (NVE Owned), Net	21,958	41,423	41,423	41,423	41,537
Goodsprings (NVE Owned), SU	4,533	8,699	8,699	8,699	8,723
	26,491	50,122	50,122	50,122	50,260
<b>Wind</b>					
Spring Valley Project, Net	344,152	318,780	318,780	318,780	319,654
Spring Valley Project, SU	6,883	0	0	0	0
	351,035	318,780	318,780	318,780	319,654
<b>NVE Owned Small (&lt; .5 MW) Systems</b>					
Solar - South	319	200	200	200	200
Non-Solar - South	0	0	0	0	0
	319	200	200	200	200
<b>Net Metered (Renewable Generations)</b>					
Solar - South	434,449	572,081	594,115	594,115	594,115
Non-Solar - South	8	8	8	8	8
	434,457	572,089	594,123	594,123	594,123
<b>Net Metered (Advanced Building Techniques)</b>					
Solar - South	1,694	1,600	1,600	1,600	1,600
<b>NON-SOLAR/NON-DSM CREDIT SUMMARY</b>					
Prior Year Carry Forward Credits	c. 0	0	0	0	0
Geothermal	2,093,955	1,853,101	1,862,928	1,907,199	1,954,674
Biomass/Methane	63,310	63,666	63,666	63,666	63,842
Small Hydro	0	0	0	0	0
Waste Heat Recovery	26,491	50,122	50,122	50,122	50,260
Wind	351,035	318,780	318,780	318,780	319,654
Net Metered (Renewables Generations)	8	8	8	8	8
Transferred to Joint Pool for the benefit of Sierra (Non-DSM)	d. (200,000)	(500,000)	(500,000)	(500,000)	(500,000)
> Non-Solar/DSM Credits Transferred to Wynn per the Exit Agreement	e. 0	(16,942)	(16,699)	(16,510)	(16,387)
> Non-Solar/DSM Credits Transferred to MGM per the Exit Agreement	f. 0	(84,712)	(83,495)	(82,548)	(81,937)
Solar PCs Applied to Non-Technology Specific Requirement	859,269	1,388,859	1,439,792	1,434,303	2,217,686
Total Non-Solar, Non-DSM PCs	3,194,068	3,072,882	3,135,102	3,175,020	4,007,801
<b>SOLAR SUMMARY</b>					
Prior Year Carry Forward Credits	c. 269,020	468,285	718,239	884,007	1,341,137
Solar PCs	913,347	1,552,175	1,555,112	1,842,592	1,845,393
Net Metered (Solar Generations)	434,449	572,081	594,115	594,115	594,115
Net Metered (Advanced Building Techniques)	1,694	1,600	1,600	1,600	1,600
Company Owned Small Solar Generation	319	200	200	200	200
Solar PCs Applied to Non-Technology Specific Requirement	(859,269)	(1,388,859)	(1,439,792)	(1,434,303)	(2,217,686)
> Solar Credits Transferred to Wynn per the Exit Agreement	e. (3,902)	(13,123)	(12,892)	(12,747)	(12,633)
> Solar Credits Transferred to MGM per the Exit Agreement	f. (20,543)	(65,614)	(64,462)	(63,735)	(63,166)
> NGR Short-Term Credit Sale, City of Las Vegas	g. (3,600)	(43,200)	(43,200)	(43,200)	0
> RENGEM Credits Transferred to Wynn per the Exit Agreement	e. (720)	(5,511)	(5,609)	(5,539)	(5,479)
> RENGEM Credits Transferred to MGM per the Exit Agreement	f. (3,532)	(27,553)	(28,047)	(27,694)	(27,395)
> NGR/Subscription Solar Placeholder	i. 0	(83,089)	(137,060)	(136,725)	(136,755)
Total Solar PCs	727,263	967,392	1,138,204	1,598,571	1,319,331

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Table 5-1 - Nevada Power Summary Table-Continued**

Nevada Power / NV Energy South		Actual	Projected <sup>a</sup>			
		2016	2017	2018	2019	2020
<b>DSM</b>						
Prior Year Carry Forward	c.	3,481,285	3,803,529	3,736,180	3,619,262	3,508,371
Less Credits Transferred to Wynn per the Exit Agreement	e.	(36,577)	(20,441)	(20,441)	(20,441)	(20,441)
Less Credits Transferred to MGM per the Exit Agreement	f.	(185,590)	(79,661)	(79,661)	(79,661)	(79,661)
DSM credits approved in 2016 for 2015 and prior years		1,407,673	863,262	830,509	847,325	858,114
Total DSM		4,666,791	4,566,689	4,466,587	4,366,485	4,266,383
DSM Cap (20%)		863,262	830,509	847,325	858,114	477,119
DSM Credits Applied Towards the Current Year RPS		863,262	830,509	847,325	858,114	477,119
Current Year DSM Surplus to be Carried Forward		3,803,529	3,736,180	3,619,262	3,508,371	3,789,264
<b>COMPLIANCE SUMMARY</b>						
<b>OVERALL ELIGIBLE PCS</b>						
Non-Solar/Non-DSM		3,194,068	3,072,882	3,135,102	3,175,020	4,007,801
Solar		727,263	967,392	1,138,204	1,598,571	1,319,331
DSM		863,262	830,509	847,325	858,114	477,119
Total kPCs		4,784,593	4,870,783	5,120,631	5,631,705	5,804,251
<b>NON-TECHNOLGY SPECIFIC CREDIT SUMMARY</b>						
Non-Solar/Non-DSM Credit		3,194,068	3,072,882	3,135,102	3,175,020	4,007,801
Allowable DSM Credits		863,262	830,509	847,325	858,114	477,119
		4,057,330	3,903,391	3,982,427	4,033,134	4,484,920
Non-Technology Specific Renewable Requirement		4,057,330	3,903,391	3,982,427	4,033,134	4,484,920
Surplus / (Open Position)		0	0	0	0	0
<b>SOLAR SPECIFIC CREDIT SUMMARY</b>						
Total Solar Credit		727,263	967,392	1,138,204	1,598,571	1,319,331
Solar-Technology Specific Renewable Requirement		258,978	249,153	254,197	257,434	286,272
Surplus / (Open Position)		468,285	718,239	884,007	1,341,137	1,033,059
<b>OVERALL SURPLUS CALCULATION</b>						
Total Credits Generated/Carried Forward w/o DSM Cap		8,588,122	8,606,963	8,739,893	9,140,076	9,593,515
Total Requirement		4,316,308	4,152,544	4,236,624	4,290,568	4,771,192
Net Surplus / (Open Position)		4,271,814	4,454,419	4,503,269	4,849,508	4,822,323
<b>Overall Surplus Credits:</b>						
Non-Solar/Non-DSM		0	0	0	0	0
Solar		468,285	718,239	884,007	1,341,137	1,033,059
DSM		3,803,529	3,736,180	3,619,262	3,508,371	3,789,264
<b>Total Surplus Credits</b>		<b>4,271,814</b>	<b>4,454,419</b>	<b>4,503,269</b>	<b>4,849,508</b>	<b>4,822,323</b>

- The 2017 to 2020 RPS credit requirement and credit supply forecasts are forward looking estimates; the actual credit requirement, credit supply, and the timing of new projects can vary. The above list excludes dedicated Nevada GreenRider Tariff projects where the 100% credits and other green attributes are assigned to the customer. In the case of Nevada Power, such agreements include Switch Station 1
- a. Per PUCN order 09-09018 (SPPC) and 09-08020 (NPC) credits from the expansion of certain Ormat facilities would be sold to NPC by SPPC based on a pre-negotiated schedule and price
- b. Authorized, pre-2016 credit balances rolled forwarded per PUCN order 16-04003 (non-solar/non demand side kPCs, 0, solar kPCs 269,020 & demand-side management kPCs 3,481,285 2017-2020 is estimated
- c. The number of NPC non-DSM surplus credits repaid (2016) or to be repaid (2017-2020) to the joint credit pool and transferred to SPPC. The exact timing of the remaining repayments is subject to change.
- d. NPC's 2016 actual and 2017-2020 projected credit obligation to Wynn Las Vegas based on the allocation methodology approved by the Commission in PUCN order 15-05006 (Application of Wynn Las Vegas, LLC to purchase energy, capacity, and/or ancillary services from a provider of new electric resources).
- e. NPC's 2016 actual and projected 2017-2020 credit obligation to MGM Resorts International based on the allocation methodology approved by the Commission in PUCN order 15-05017 (Application of MGM Resorts International to purchase energy, capacity, and/or ancillary services from a provider of new electric resources).
- f. A short-term PC sale agreement under which Nevada Power agreed to sell energy credits from its Boulder Solar I project to the City of Las Vegas over a three year period once the project achieves COD. Boulder Solar I achieved COD on December 9, 2016 (ref. PUCN Docket 15-11026).
- g. The exact number of 2016 DSM credits is the subject of a separate and later filing. Only 2015 and prior certified DSM credits will be applied against the current year's RPS credit requirement subject to all DSM credit limitations.
- h. Placeholder for subscription solar (NPC/SPPC) and/or future NGR agreements. The assumption is that such credits would initially come from Boulder Solar I
- i.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

## 5.2. Sierra Projected Portfolio Standard Requirements and Supplies

Appendix 5.2, Table 5-2 Sierra Pacific Power Summary Table

Sierra Pacific Power / NV Energy North	Actual	Projected <sup>a.</sup>			
	2016	2017	2018	2019	2020
<b>RPS %</b>					
Retail Sales (MWhs)	8,338,498	8,583,982	8,887,192	9,206,798	9,296,964
RPS %	20%	20%	20%	20%	22%
Total Credit Requirement	1,667,700	1,716,796	1,777,438	1,841,360	2,045,332
Non-Technology Specific PC Requirement	1,567,638	1,613,788	1,670,792	1,730,878	1,922,612
Solar Specific PC Requirement (6%)	100,062	103,008	106,646	110,482	122,720
DSM Allowance (20% 2015-2019, 10% 2020)	333,540	343,359	355,488	368,272	204,533
<b>Geothermal</b>					
Beowawe, Net	104,577	104,483	104,483	104,483	104,769
Beowawe, SU	20,756	8,348	8,348	8,348	8,370
Brady, Net	53,387	52,969	52,969	52,969	53,114
Galena 3, Net	144,796	147,954	138,753	138,753	139,134
Galena 3, SU	43,973	11,373	20,809	15,660	10,695
Homestretch, Net	9,125	10,305	0	0	0
Homestretch, SU	7,715	6,600	0	0	0
Richard Burdette, Net	148,167	151,210	156,630	148,828	151,624
Richard Burdette, SU	31,830	46,390	31,090	25,950	36,610
San Emidio (Amor 2), Net	75,049	73,444	73,444	73,444	73,645
San Emidio (Amor 2) SU	25,753	18,362	18,362	18,362	18,412
Soda Lake I & II, Net	70,275	68,070	55,116	55,116	55,267
Steamboat Hills, Net	90,237	86,605	14,891	0	0
Steamboat II, Net	64,067	65,408	65,408	65,408	65,587
Steamboat III, Net	70,857	72,310	72,310	72,310	72,509
2009 Ormat SPPC/NPC PC Transfer Agreement	b. (19,710)	(19,710)	(19,710)	(19,710)	(19,710)
	940,854	904,121	792,903	759,921	770,027
<b>Solar</b>					
Nevada Solar One, Net	38,131	37,683	37,683	37,683	37,786
Nevada Solar One, SU	5,784	4,220	4,220	4,220	4,232
	43,915	41,903	41,903	41,903	42,018
<b>Biomass/Biogas</b>					
City of Sparks/TMWW (Credit Only)	7,850	7,738	7,738	7,738	7,759
	7,850	7,738	7,738	7,738	7,759
<b>Hydro</b>					
Fleish, Net	5,927	10,605	10,605	10,605	10,634
Hooper, Net i.	932	0	0	0	0
TCID New Lahontan, Net	10,716	10,706	10,706	10,706	10,736
Verdi, Net	13,994	9,466	9,466	9,466	9,492
Washoe, Net	8,279	7,419	7,419	7,419	7,439
	39,848	38,196	38,196	38,196	38,301

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Table 5-2 - Sierra Summary Table-Continued**

		Actual	Projected <sup>a</sup>			
		2016	2017	2018	2019	2020
Sierra Pacific Power / NV Energy North						
NVE Owned Small (< .5 MW) Systems						
Solar - North		268	250	250	250	250
Non-Solar - North		1	1	1	1	1
		269	251	251	251	251
Net Metered (Renewable Generations)						
Solar - North		132,364	141,670	141,670	141,670	141,670
Non-Solar - North		1,301	1,300	1,300	1,300	1,300
		133,665	142,970	142,970	142,970	142,970
NON-SOLAR/NON-DSM CREDIT SUMMARY						
Prior Year Surplus Carry Forward Credits	c.	634,000	183,801	343,644	368,477	308,694
Transferred to Credit Pool for the benefit of Sierra (Non-DSM)	d.	200,000	500,000	500,000	500,000	500,000
Geothermal		940,854	904,121	792,903	759,921	770,027
Biomass/Methane		7,850	7,738	7,738	7,738	7,759
Hydro		39,848	38,196	38,196	38,196	38,301
Company Owned Small Generation		1	1	1	1	1
Net Metered (Renewables Generations)		1,301	1,300	1,300	1,300	1,300
Solar PCs Applied to Non-Technology Specific Requirement		0	0	0	0	0
Credits Earmarked for CalPeco CA RPS Compliance		(137,554)	(20,784)	0	(4,333)	0
> Switch Credit Sale	e.	(268,099)	0	0	0	0
Nevada Green Rider Credit Retirements	g.	(302)	(300)	0	0	0
Total Non-Solar PCs		1,417,899	1,614,073	1,683,781	1,671,300	1,626,082
SOLAR SUMMARY						
Prior Year Carry Forward Credits	c.	293,896	362,881	443,696	520,873	594,214
Solar PCs		43,915	41,903	41,903	41,903	42,018
Company Owned Small Solar Generation		268	250	250	250	250
Net Metered (Solar Generations)		132,364	141,670	141,670	141,670	141,670
> Surplus Credit Sale	f.	(7,500)	0	0	0	0
Solar PCs Applied to Non-Solar Requirement		0	0	0	0	0
Total Solar PCs		462,943	546,704	627,519	704,696	778,152
DSM						
Prior Year Carry Forward	c.	777,116	892,935	883,116	870,987	858,203
DSM credits approved in 2016 for 2015 and prior years	h.	449,359	333,540	343,359	355,488	368,272
Total DSM		1,226,475	1,226,475	1,226,475	1,226,475	1,226,475
DSM Cap (20%)		333,540	343,359	355,488	368,272	204,533
DSM Credits Applied Towards the Current Year RPS		333,540	343,359	355,488	368,272	204,533
Current Year DSM Surplus to be Carried Forward		892,935	883,116	870,987	858,203	1,021,942

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Table 5-2 - Sierra Summary Table-Continued**

Sierra Pacific Power / NV Energy North	Actual	Projected <sup>a.</sup>			
	2016	2017	2018	2019	2020
<b>COMPLIANCE SUMMARY:</b>					
<b>OVERALL ELIGIBLE PCS</b>					
Non-Solar/Non-DSM	1,417,897	1,614,071	1,683,779	1,671,298	1,626,080
Solar	462,949	546,710	627,525	704,702	778,158
DSM	333,540	343,359	355,488	368,272	204,533
Total kPCs	2,214,386	2,504,140	2,666,792	2,744,272	2,608,771
<b>NON-TECHNOLOGY SPECIFIC CREDIT SUMMARY</b>					
Non-Solar/Non-DSM Credit	1,417,897	1,614,071	1,683,779	1,671,298	1,626,080
Allowable DSM Credits	333,540	343,359	355,488	368,272	204,533
	1,751,437	1,957,430	2,039,267	2,039,570	1,830,613
Non-Technology Specific Renewable Requirement	1,567,638	1,613,788	1,670,792	1,730,878	1,922,612
Surplus / (Open Position)	183,799	343,642	368,475	308,692	(91,999)
<b>SOLAR SPECIFIC CREDIT SUMMARY</b>					
Total Solar Credit	462,949	546,710	627,525	704,702	778,158
Solar-Technology Specific Renewable Requirement	100,062	103,008	106,646	110,482	122,720
Surplus / (Open Position)	362,887	443,702	520,879	594,220	655,438
<b>OVERALL SURPLUS CALCULATION</b>					
Total Credits Generated/Carried Forward w/o 20% DSM Cap	3,107,321	3,387,256	3,537,779	3,602,475	3,630,713
Total Requirement	1,667,700	1,716,796	1,777,438	1,841,360	2,045,332
Net Surplus / (Open Position)	1,439,621	1,670,460	1,760,341	1,761,115	1,585,381
<b>Overall Surplus Credits:</b>					
Non-Solar/Non-DSM	183,799	343,642	368,475	308,692	(91,999)
Solar	362,887	443,702	520,879	594,220	655,438
DSM	892,935	883,116	870,987	858,203	1,021,942
<b>Total Surplus Credits</b>	1,439,621	1,670,460	1,760,341	1,761,115	1,585,381
<b>Net kPCs Carried Forward</b>	<b>1,439,621</b>	<b>1,670,460</b>	<b>1,760,341</b>	<b>1,761,115</b>	<b>1,585,381</b>

- The 2017 to 2020 RPS credit requirement and credit supply forecasts are forward looking estimates; the actual credit requirement, credit supply, and the timing of
- new projects can vary. The above list excludes customer-dedicated Nevada GreenRider Tariff projects where the credits and other renewable attributes are fully assigned to the customer. In the case of Sierra, such agreements include Boulder Solar 2, Switch Station 2 (65% of output) and Fort Churchill Solar Array.
  - per PUCN order 09-09018 (SPPC) and 09-08020 (NPC) credits from the expansion of certain Ormat facilities would be sold to NPC by SPPC based on a pre-negotiated schedule and price. Note, the 2015 credit total has already been adjusted for the 19,710 SU credits transferred to NPC
  - 2016 authorized, pre-2016 credit balances rolled forwarded per PUCN order 16-04003 (non-solar/non demand side kPCs 634,479, solar kPCs 293,896, & demand-side management kPCs 777,116 2016-2020 is estimated Note, the actual number of non-solar/non demand side kPC carried forward was 479 kPCs lower to the final CalPeco credit obligation coming in higher than the estimate that was available at the time the report was filed.
  - The number of NPC non-DSM surplus credits repaid (2016) or to be repaid (2017-2020) to the joint credit pool and transferred to SPPC. The exact timing of the remaining repayments is subject to change.
  - Credits sold to Switch under Portfolio Energy Credit Sale Agreement approved by the Commission in Docket 15-11029.
  - A credit sale executed per NRS 704.7828 which requires the marketing of excess credit that exceed a threshold that is calculated based on the following year's RPS credit requirement. The sale was executed based on the value that it provides to Sierra's customers. The small number of credits sold has no material impact on Sierra's future credit needs.
  - Credits to be set aside and retired against the Sierra Nevada Green Rider Tariff as calculated based total kW hours sales billed under the tariff
  - The exact number of 2016 DSM credits is the subject of a separate and later filing. Only 2015 and prior certified DSM credits will be applied against the current year's RPS credit requirement subject to all DSM credit limitations.
  - Contract terminated on June 22, 2016. Total includes only credits from January 1, 2016 to June 22, 2016 net generation

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

### 5.3. Attestations

#### Long & Short Term PPA Agreements

Owner	Facilities	Attestation Returned?
American Capital Energy / D. E. Shaw Renewable Investments, LLC	Searchlight Solar	Yes
Beowawe Power, LLC	Beowawe	Yes
CC Landfill Energy, LLC	Apex LF Renewable Energy Generating Facility (CC Landfill)	Yes
City of Sparks - TMWRF	Truckee Meadows Waste Water Facility	Yes
Silver State Solar Power North, CC /Enbridge, Green Energy	Silver State Solar North, LLC	Yes
Enel Stillwater, LLC & Enel Salt Wells, LLC	Salt Wells, Stillwater Geothermal & Stillwater PV	Yes
Homestretch Geothermal, LLC	Homestretch	Yes
Hooper Hydroelectric	Hooper	a.
Amor IX, LLCC, / Alterra Power Corp	Soda Lake 1, Soda Lake 2 (credits from net energy deliveries only)	Yes
Nevada Geothermal Power Co.	Faulkner 1 (aka Blue Mountain)	Yes
Acciona Energy /Nevada Solar One, LLC	Nevada Solar One	Yes
Ormat Nevada, Inc	Brady, Desert Peak 2, Galena 2, Galena 3, Jersey Valley, McGinness Hills, Richard Burdette, Steamboats 1A, 2 & 3, Steamboat Hills & Tuscarora	Yes
ProCaps Laboratories	Covering Parking, Rooftop Eastgate, Rooftop Parkson	Yes
Solar Reserve	Crescent Dunes	Yes
Solar Star NAFB, LLC	Solar Star, NAFB	Yes
Southern Renewable Energy	RV Apex Solar, FRV Spectrum	Yes
BSP Holding Company, LLC	Boulder Solar I	Yes
NextEra Energy Resources, LLC	Mountain View Solar, LLC	Yes
Spring Valley Wind LLC (Pattern Energy)	Spring Valley Wind	Yes
SunPower Corporation	Fort Apache, Grand Canyon, Luce, Ronzone, Spring Mountain & Spring Preserve	Yes
Truckee Carson Irrigation District	New Lahontan	Yes
Truckee Meadows Water Authority	Washoe, Verdi, & Fleish	Yes
USG Nevada, LLC	San Emidio	Yes
WM Nevada Renewable Energy, LLC	WMNRE - Lockwood	Yes

a. Hooper Hydro failed to respond to multiple requests to provide an attestation. Sierra's PPA with Hooper expired on June 22, 2016. Only credits that were derived from January 1, 2016 through June 22, 2016 net generation are included in Sierra's eligible credit total as reported in Table 5.2.

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Searchlight Solar

Signature

Name

ACE Searchlight Solar, LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Beowawe

*Vitaly A. Lee*

Signature

VITALY A. LEE, VP BUSINESS MANAGEMENT

Name

BEOVAWE POWER LLC

Company Name

P.O. Box 98910, M513, Las Vegas, NV 89151-0001



NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Apex LF Renewable Energy Generating Facility (CC Landfill)

Ronald Howley

Signature

Ronald Howley

Name

CC Landfill Energy, LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Truckee Meadows Waste Water Facility

A handwritten signature in dark ink, appearing to read "Michael A. Drunketter", written over a horizontal line.

Signature

The name "Michael A. Drunketter" handwritten in dark ink over a horizontal line.

Name

The name "City of Sparks" handwritten in dark ink over a horizontal line.

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Silver State Solar North, LLC

A handwritten signature in black ink, appearing to read "Ian MacRobbie", written over a horizontal line.

Signature

IAN MACROBBIE      GENERAL MANAGER

Name

ENBRIDGE ENERGY

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Salt Wells, Stillwater Geothermal & Stillwater PV

Greg Rizzo

Signature

Greg Rizzo

Name

Enel Stillwater, LLC and Enel Salt Wells, LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Homestretch

  
\_\_\_\_\_

Signature

Andrew E. Egbert  
\_\_\_\_\_

Name

Homestretch Geothermal  
\_\_\_\_\_

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Soda Lake 1, Soda Lake 2 (Credits from net energy only)

Monte C. Morrison PE VP Operations and Safety

Signature

Monte C. Morrison PE

Name

AMOR IX, LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

---



NV Energy

2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): NGP Blue Mountain I LLC

A handwritten signature in black ink, appearing to read "A. Mandell", written over a horizontal line.

Signature

Aaron Mandell

Name

NGP Blue Mountain I LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

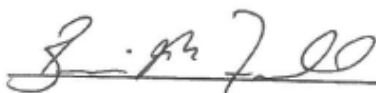


2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Nevada Solar One



Signature

Brian M. Farrell

Name

ACCIONA ENERGY NORTH AMERICA FOR NEVADA SOLAR ONE LLC

Company Name

P.O. Box 98910, M513, Las Vegas, NV 89151-0001



NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Brady, Desert Peak 2, Galena 2, Galena 3, Jersey Valley, McGinness Hills, Richard Burdette, Steamboats 1A, 2 & 3, Steamboat Hills & Tuscarora

  
\_\_\_\_\_  
Signature

Evan Warner  
\_\_\_\_\_  
Name

Ormat Nevada, Inc  
\_\_\_\_\_  
Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Covering Parking, Rooftop Eastgate & Rooftop Parkson Station  
Usage

  
\_\_\_\_\_

Signature

  
\_\_\_\_\_

Name

  
\_\_\_\_\_

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Crescent Dunes

A handwritten signature in black ink, appearing to read "S. Bidani", written over a horizontal line.

Signature

Sumeet Bidani

Name

Tonopah Solar Energy, LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016




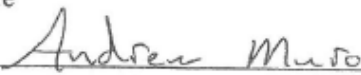
2016 Annual Renewable Energy Portfolio Credit Attestation Request


The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Solar Star, NAFB

  
\_\_\_\_\_  
Signature

  
\_\_\_\_\_  
Name

  
\_\_\_\_\_  
Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): RV Apex Solar, FRV Spectrum

Valery N. Brown

Signature

Valery N. Brown

Name

Southern Turner Renewable Energy, LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Boulder Solar I

Valery N. Brown

Signature

Valery N. Brown

Name

BSP Holding Company, LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

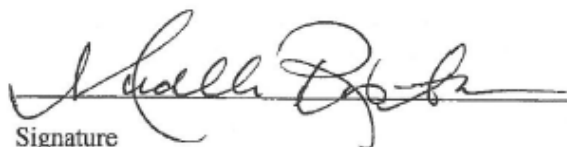


2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Mountain View Solar

  
Signature

Michelle Rios-Alen  
Name

NextEra Energy Resources  
Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Spring Valley Wind

A handwritten signature in cursive script, appearing to read "Chris Shugart", written over a horizontal line.

Signature

Chris Shugart

Name

Spring Valley Wind LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001



NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Fort Apache, Grand Canyon, Luce, Ronzone, Spring Mountain & Spring Preserve

Signature

Name

Company Name

P.O. Box 98910, M513, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



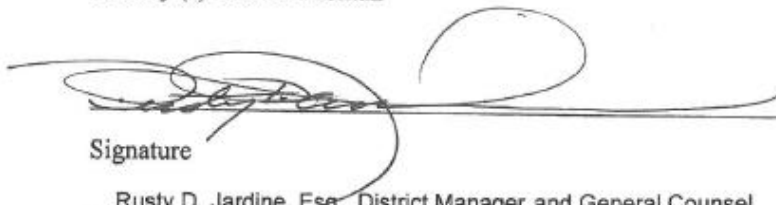
NV Energy

2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): New Lahontan

  
\_\_\_\_\_  
Signature  
Rusty D. Jardine, Esq. District Manager and General Counsel  
\_\_\_\_\_  
Name  
Truckee-Carson Irrigation District  
\_\_\_\_\_  
Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

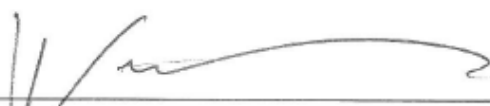


2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): Washoe, Verdi, & Fleish

  
\_\_\_\_\_  
Signature

WILLIAM L. HAUCK  
\_\_\_\_\_  
Name

TRUCKEE MEADOWS WATER AUTHORITY  
\_\_\_\_\_  
Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016




2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): San Emidio



Signature

DOUGLAS J GLASPEY

Name

U.S.G. Nevada LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



2016 Annual Renewable Energy Portfolio Credit Attestation Request

The renewable energy and associated portfolio energy credits produced at the facility(s) listed below and transfer to Sierra Pacific Power Company/Nevada Power Company in 2016:

- a.) Have not been and will not be sold or exchanged for compensation or used in any other state or jurisdiction; and
- b.) Have not been and will not be included within a blended product certified to include a fixed percentage of renewable energy in any other state or jurisdiction.

Facility (s): WMNRE - Lockwood

Paul Pabor

Signature

PAUL PABOR

Name

WM Nevada Renewable Energy, LLC

Company Name

P.O. Box 98910, MS13, Las Vegas, NV 89151-0001

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**5.4. GreenRider Option 1 Customers by Customer Type**

	Total Customers 12/31/16	NGR Option 1 Customers 12/31/2016	Total 2016 Revenue
<b>Residential</b>			
D-1 Domestic Use	217,348	13	\$ 3,062.10
DM-1 Domestic Multi-Family	72,479	1	\$ 229.01
OD-1-TOU Optional Domestic Ser	853	1	\$ 102.18
ODM-1-TOU Op Dom MF-TOU	40		
OLS-res Outdoor Lighting Servi	-		
OD-1-TOU-HEV (Hybrid Vehicle)	96	2	\$ 490.18
D-1-NEM	2,265		
D-1-NEM-TOU	18		
D-1-NEM-TOU-EVRR	8		
DEAA Revenue	-		
Unbilled	(15)		
<b>Total Residential</b>	<b>293,092</b>	<b>17</b>	<b>\$ 3,883.47</b>
<b>Commercial &amp; Industrial - Small</b>			
GS-1 Small General Service	40,720		
OGS-1-TOU Optional General - T	287	1	\$ 98.17
SSR 2 Sm Standby (GS-1)	5		
WP Water Plumbing	1		
IS-1 Irrigation Service	504		
IS-2 Interruptible Irrigation	815		
WCS-1-Wireless Comm - Level 1	1		
OLS-com1 Outdoor Lighting Ser	-		
GS-1-NEM	169		
GS-1-NEM-TOU	-		
GS-2S Med Gen Serv-Secondary	3,451		
GS-2P Med Gen Serv-Primary	30		
GS-2T Med Gen Serv-Transmissio	10		
GS-2S-TOU Med Gen Serv-TOU-S	117	1	\$ 9,794.62
GS-2P-TOU Med Gen Serv-TOU-P	7		
GS-2T-TOU Med Gen Serv-TOU-T	7		
SSR-3P Sm Standby (GS-2P)	2		
SSR-3T Sm Standby (GS-2T)	2		
OGS-2S-TOU Optional Med Gen-S	495		
LSR-1T Med Standby(GS-2-TOU-T)	5		
DEAA Revenue	-		
Unbilled	-		
<b>Commercial &amp; Industrial - Small Total:</b>	<b>46,628</b>	<b>2</b>	<b>\$ 9,892.79</b>
<b>Commercial &amp; Industrial - Large</b>			
GS-4 Large Transmission Service	4		
GS-4T-NG-New Gen GS-4-Transmis	3		
GS-3S-NG-New Gen GS-3-Secondar	(1)		
GS-3P-NG-New Gen GS-3-Primary	2		
GS-3T-NG-New Gen GS-3-Transmis	1		
GS-3S Large General Service-S	43		
GS-3P Large General Service-P	37		
GS-3T Large General Service-T	15		
LSR-2P Lg Standby Serv(GS-3-P)	1		
LSR-2T Lg Standby Serv(GS-3-T)	9		
DO-GS-4 Large Transmission	3		
DEAA Revenue	-		
Unbilled	-		
<b>Commercial &amp; Industrial - Large Total:</b>	<b>117</b>	<b>-</b>	<b>-</b>
<b>Public Street &amp; Hwy. Lights</b>			
SL Street Lighting	111		
Unbilled	-		
<b>Public Street &amp; Hwy. Lights Total:</b>	<b>111</b>	<b>-</b>	<b>-</b>
<b>GRAND TOTAL</b>	<b>339,948</b>	<b>19</b>	<b>\$ 13,776.26</b>

## 5.5. RFP Offer

### Reverse Request for Proposal for Renewable Energy Credits (“RFP”)

**October 18, 2016**

Sierra Pacific Power Company, a Nevada corporation doing business as NV Energy (“Sierra Pacific”), is soliciting proposals to sell unbundled Renewable Energy Credits (RECs), also referred to in Nevada as Portfolio Energy Credits (PECs). Sierra Pacific is required under Nevada Revised Statute 704.7828 to market for sale RECs that are in excess of twenty five percent of the number of PECs that are needed to comply with its projected portfolio energy standard for the subsequent calendar year.

Interested buyers should provide Sierra Pacific with the requested information on the attached 2016 Bid Response Form, Exhibit A, by no later than October 25, 2016, by 9:00 a.m. Pacific Prevailing Time (PPT) by e-mail to: [SPPC2016RECOffer@NVEnergy.com](mailto:SPPC2016RECOffer@NVEnergy.com)

---

#### RFP Description and Definitions

**Seller:**

Sierra Pacific Power Company, dba NV Energy

**Buyer:**

Counterparty

**Product:**

Certain offered RECs, from eligible renewable resources shown in Exhibit B, with the following characteristics:

- Unbundled, pre-2016 net and station usage RECs,
- Both WREGIS and NVTREC certified RECs,
- Generating units have been certified by the Public Utilities Commission of Nevada (PUCN) and, where indicated, by California Energy Commission (CEC) as RPS eligible resources subject to limitations,
- “REC” has the meaning given to Green Attributes in Nevada as defined under Nevada Revised Statute 704.7815 and 704.78215 or if also CEC certified under California law (Public Utilities Code §399.12[f]),
- The RECs are all from renewable resources located within the State of Nevada.
- Sierra Pacific has obtained LORS Certification for each California eligible resource. “LORS Certification” means certification by the CEC of an electric generation facility not located within the state of California that such facility meets California’s environmental quality laws, ordinances, regulations, and standards as set forth in the CEC’s RPS Eligibility Guidebook.

**REC Quantity Offered:**

The maximum number of RECs offered cannot exceed to maximum available per Exhibit B. Sierra Pacific may in its discretion further limit the maximum number of RECs for which it will accept bids. The minimum amount of RECs bid by a prospective buyer should not be less than 1,000 RECs and all bid quantities must be in increments of 500 RECs.

**REC:**

1 REC or  $k_{PC}$  = 1 megawatt hour of renewable energy produced

**REC Price Offer:**

\$/REC

**REC Delivery:**

RECs will be transferred to the Buyer's account via the Western Renewable Energy Generation Information System (WREGIS) or Nevada Tracks Renewable Energy Credits (NVTREC), depending upon the REC certification.

**Contingencies:**

The proposed terms and conditions are for discussion purposes only and are not an offer or commitment of Sierra Pacific to enter into any transaction. Sierra Pacific reserves the right to terminate this offer at any time prior to deadline. The number of and specific types of RECs offered for sale is subject to change until the execution of a definitive agreement between seller and buyer containing all appropriate provisions, including those related to dispute resolution, credit and governing law. Submission of the 2016 Sierra Pacific REC RFP Response Form, Exhibit A, does not obligate either party to enter into a transaction or definitive agreement with the other party, and each party may cease discussion for any reason at any time.

Sierra Pacific may seek regulatory review by the Public Utilities Commission of Nevada (PUCN), in the case of certain sales to ensure that the sale does not in any way disadvantage Sierra Pacific's rate payers.



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Exhibit A – 2016 Sierra Pacific REC RFP Response Form**

Please return by e-mail to: [SPPC2016RECOffer@NVEnergy.com](mailto:SPPC2016RECOffer@NVEnergy.com)

Buyer Contact Information:

Counterparty Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Prospective Buyers are requested to specify the RECs that they are interested in purchasing based on the RECs offered for sale per Exhibit B.

<b>Resource</b> Geothermal, Solar	<b>Registry</b> NVTREC/WREGIS	<b>Certification</b> CEC, PUCN	<b>Year</b>	<b>Bid Price</b> \$/REC	<b>Quantity</b> Minimum 1,000

The above RFP response does not constitute an obligation on the part of the bidder to purchase or Sierra Pacific to sell the above requested RECs until both parties have reached a binding agreement. Agreement may be subject to regulatory review by the Public Utilities Commission of Nevada (PUCN).

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**Exhibit B – RECs Offered**

Resource *	Registry	Certification	Vintage	Type	Quantity
Geothermal	WREGIS	PUCN & CEC	2015	Net	239,786
Solar	NVTREC	PUCN	2012	SU	5,668
Solar	NVTREC	PUCN	2013	SU	5,260

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

**5.6. 2016 RFP Mailing List**

<b>COMPANY / MUNICIPALITY</b>	
1	3Degrees
2	ACT Commodities Inc.
3	Alameda Municipal Power
4	American Electric Power Company
5	APS
6	Bear Valley Electric Service
7	Beowawe
8	Black Hills Power
9	Bonneville Power
10	BP Energy
11	Calpine
12	Cargill
13	Chelan County PUD
14	Citigroup
15	City of Anaheim
16	City of Azusa, CA
17	City of Banning, CA
18	City Of Burbank
19	City of Healdsburg, CA
20	City of Las Vegas
21	City of Palo Alto, CA
22	City of Pasadena, CA
23	City of Redding, CA
24	City of Riverside, CA
25	City of Roseville, CA
26	City of Santa Clara, CA
27	City of St. George
28	City of Ukiah, CA
29	City of Vernon, CA
30	Clear Energy
31	Conoco Phillips
32	Constellation
33	Douglas County PUD
34	EDF Trading
35	El Paso Electric Company
36	Element Markets

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

COMPANY / MUNICIPALITY	
37	Enel
38	EV Markets
39	Eweb
40	Excelon
41	FPL Energy Power Marketing
42	GCPUD
43	Glendale Water & Power
44	Guzman Energy
45	Iberdrola
46	Idaho Power
47	Imperial Valley Irrigation District
48	Inland Power and Light
49	Karbone
50	LADWP
51	Las Vegas Valley Water Authority
52	Macquarie Cook
53	Liberty Utilities
54	Metropolitan Water District of Southern California
55	MEMO Sunshine Renewables
56	Morgan Stanley
57	ORMAT
58	Patua
59	PGE
60	PNM
61	Port of Oakland
62	Powerex
63	PPL Montana
64	Rainbow Energy
65	Renewable Choice
66	RPS Advisors
67	Saguaro Power Company
68	Salt River Project
69	Sempra
70	Shell Energy
71	Sierra Nevada Corp.
72	Silver State Energy Authority
73	SMUD
74	Soda Lake
75	Southern California Edison
76	Sterling Planet
77	Switch

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

COMPANY / MUNICIPALITY	
78	Tenaska Power Services
79	Transalta Energy Marketing US
80	Tri-State Generation & Transmission
81	Tucson Electric Power
82	UAMPS
83	Valley Electric Association
84	Vitol Inc.
85	Wynn
86	Xcel Energy/Public Service Co. of CO

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016

5.7. RFP Bid Responses



Exhibit A – 2016 Sierra Pacific REC RFP Response Form

Please return by e-mail to: SPPC2016RECOffer@NVEnergy.com

Buyer Contact Information:

Counterparty Name:

Contact Name:

Contact Number:

Contact Email:

BID 1.

Prospective Buyers are requested to specify the RECs that they are interested in purchasing based on the RECs offered for sale per Exhibit B.

Resource Geothermal, Solar	Registry NVTREC/WREGIS	Certification CEC, PUCN	Year	Bid Price \$/REC	Quantity Minimum 1,000
Solar	NVTREC	PUCN	2012 2013	\$10.00	7500

The above RFP response does not constitute an obligation on the part of the bidder to purchase or Sierra Pacific to sell the above requested RECs until both parties have reached a binding agreement. Agreement may be subject to regulatory review by the Public Utilities Commission of Nevada (PUCN).

P.O. Box 98910, REO MS 13, Las Vegas, NV 89151-001

NV Energy  
Portfolio Standard Annual Report, Compliance Year 2016



**Exhibit A – 2016 Sierra Pacific REC RFP Response Form**

Please return by e-mail to: [SPPC2016RECOffer@NVEnergy.com](mailto:SPPC2016RECOffer@NVEnergy.com)

Buyer Contact Information:

Counterparty Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

BID 2.

Prospective Buyers are requested to specify the RECs that they are interested in purchasing based on the RECs offered for sale per Exhibit B.

Resource Geothermal, Solar	Registry NVTREC/WREGIS	Certification CEC, PUCN	Year	Bid Price \$/REC	Quantity Minimum 1,000
Geothermal	WREGIS		BH15*	\$0.50	25,000

The above RFP response does not constitute an obligation on the part of the bidder to purchase or Sierra Pacific to sell the above requested RECs until both parties have reached a binding agreement. Agreement may be subject to regulatory review by the Public Utilities Commission of Nevada (PUCN).

\*Note: 3Degrees is bidding on Sierra Pacific's entire BH15 (7/1/2015 - 12/31/2015) geothermal volume and would need to purchase these RECs under the Green-e National Standard.

P.O. Box 98910, REO MS 13, Las Vegas, NV 89151-001

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**



**Exhibit A – 2016 Sierra Pacific REC RFP Response Form**

Please return by e-mail to: [SPPC2016RECoffer@NVEnergy.com](mailto:SPPC2016RECoffer@NVEnergy.com)

**Buyer Contact Information:**

Counterparty Name:

Contact Name:

Contact Number:

Contact Email:

BID 3.

Prospective Buyers are requested to specify the RECs that they are interested in purchasing based on the RECs offered for sale per Exhibit B.

Resource Geothermal, Solar	Registry NVTREC/WREGIS	Certification CEC, PUCN	Year	Bid Price \$/REC	Quantity Minimum 1,000
Geothermal	WREGIS	PUCN & CEC	2015	\$0.50	234,786

The above RFP response does not constitute an obligation on the part of the bidder to purchase or Sierra Pacific to sell the above requested RECs until both parties have reached a binding agreement. Agreement may be subject to regulatory review by the Public Utilities Commission of Nevada (PUCN).

P.O. Box 98910, REO MS 13, Las Vegas, NV 89151-001



**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**5.8. RFP Evaluation Results**

Did the bid price exceed Sierra's original cost to obtain the RECs?

Vintage	State Endorsement	Registry	Type	Credits Available (kPCs)	Cost Range		Average Imputed Cost per kPC	Highest Bid Received
					Min	Max		
2015	Nevada & California	WREGIS	Net, Non-Solar	239,786				\$ 0.50
2012	Nevada	NVTREC	Station Service	5,668				\$ 10.00
2013	Nevada	NVTREC	Station Service	5,260				\$ 10.00
				<u>250,714</u>				

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**5.9. DSM 2015 Credit Calculations**

**NPC**

NPC DSM

DSM Programs	2005 Full Annual Savings kWh <sup>1</sup>	2006 Full Annual Savings kWh <sup>2</sup>	2007 Full Annual Savings kWh <sup>3</sup>	2008 Full Annual Savings kWh <sup>4</sup>	2009 Full Annual Savings kWh <sup>5</sup>	2010 Full Annual Savings kWh <sup>6</sup>	2011 Full Annual Savings kWh <sup>7</sup>	2012 Full Annual Savings kWh <sup>8</sup>	2013 Full Annual Savings kWh <sup>9</sup>	2014 Full Annual Savings kWh <sup>10</sup>	2015 First Year Savings kWh <sup>11</sup>	Total Savings kWh	% kWh On-Peak for Annual kWh Savings
Residential													
Energy Star Lighting	1,989,946	0	0	145,394,385	11,357,761	80,296,079	34,662,007	0	0	9,750,608	6,948,396	290,399,381	7.68%
Refrigerator Recycling	0	2,671,954	6,149,408	8,680,312	12,439,374	6,708,238	5,808,423	5,088,621	4,761,860	5,054,423	2,288,621	59,651,234	9.80%
Mobile & Manuf. Homes	0	0	0	0	0	708,039	1,880,065	0	0	0	0	2,588,044	9.21%
Demand Response	0	0	0	0	0	0	0	0	0	0	21,731,026	21,731,026	41.03%
High Eff Residential AC	13,400,810	32,563,206	3,191,928	37,884,825	14,367,659	0	4,379,734	6,850,111	9,573,484	10,345,621	1,215,562	133,772,940	18.19%
Pool Pumps	0	0	152,836	1,345,368	4,929,485	2,515,931	5,967,128	5,739,104	8,598,006	10,196,676	6,882,356	46,326,890	18.14%
ES Home Plus	0	0	0	1,533,258	2,041,407	4,054,597	3,926,034	4,018,236	0	0	0	15,573,532	8.80%
Consumer Electronics 80 Plus	0	0	0	0	0	0	7,629,541	5,414,464	0	0	0	13,044,065	9.57%
Low Income	101,238	1,009,781	1,577,331	1,463,601	3,327,228	1,748,155	694,059	0	0	0	0	9,921,393	8.80%
HomeFree Nevada/HER	0	0	0	0	0	102,358	35,796	0	0	0	12,874,537	13,012,691	17.52%
Solar Thermal	0	0	0	0	0	0	65,814	20,530	34,242	7,189	844	128,619	4.60%
Advance Build Tech.	0	0	0	0	0	0	365,047	501,257	0	0	0	866,304	8.80%
	15,491,994	36,244,941	11,071,503	196,301,949	48,462,914	96,133,397	65,413,588	27,632,323	22,967,592	35,354,517	51,941,342	607,016,060	12.50%
Commercial													
Comm Construction	0	3,462,383	10,448,263	25,725,138	59,394,066	24,440,406	7,526,035	14,280,337	0	0	0	145,276,830	10.78%
Schools	924,568	4,354,743	3,522,689	5,756,419	5,309,732	2,380,697	21,581,481	12,010,784	11,246,004	8,790,183	5,541,418	81,418,718	8.18%
Comm Incentives	0	0	68,644,823	64,834,701	114,572,100	108,409,556	100,067,301	89,951,467	94,699,185	105,561,343	33,417,610	780,138,086	7.81%
Hotels/Motels	0	0	2,064,042	4,700,972	0	0	0	0	0	0	0	6,765,014	20.41%
Consumer Electronics 80 Plus	0	0	0	0	0	0	547,888	65,763	0	0	0	613,651	14.94%
Non-Profit Grants	246,272	145,880	82,283	406,189	169,295	324,559	252,785	335,332	650,002	612,292	369,608	3,594,497	7.81%
Commercial DR	0	0	0	0	0	0	0	0	0	0	2,545,797	2,545,797	9.65%
	1,170,844	7,963,008	84,762,100	101,423,419	179,445,193	135,555,218	129,975,490	116,643,883	106,595,191	114,963,818	41,874,433	1,020,372,593	8.35%
Line loss multiplier													
1.05													
On peak multiplier													
2.00													
												Portfolio Energy Credits	
												Residential	717,055,486
												Commercial	690,617,730
												Total DSM Portfolio Energy Credits for	1,407,673,216

Notes for Table:

1. See Docket No. 06-06051
2. See Docket No. 07-08016
3. See Docket No. 08-08011
4. See Docket No. 10-02009
5. See Docket No. 10-10024
6. See Combined Docket No. 12-03004, No. 12-08005 and No. 12-03006 for 2010 Savings.
7. See Combined Docket No. 12-06052, No. 12-06053 and No. 12-08009 for 2011 Savings.
8. See Combined Docket No. 13-07002, No. 12-06053 and No. 13-07005 for 2012 Savings.
9. See Combined Docket No. 14-07007 and No. 14-07008 for 2013 Savings.
10. See Combined Docket No. 15-06065 and No. 15-07004 for 2014 Savings.
11. See Combined Docket No. 16-07001 and No. 16-07007 for 2015 Savings.
12. Total PCs Claimed From Energy Efficiency Measures are calculated such that 50% of Total Savings (in kWh) included come from residential sources. See NRS 704.7821.
13. See Docket No. 15-03042

**NV Energy**  
**Portfolio Standard Annual Report, Compliance Year 2016**

**SPPC**

SPPC DSM

DSM Programs	2005 Full Annual Savings kWh <sup>1</sup>	2006 Full Annual Savings kWh <sup>2</sup>	2007 Full Annual Savings kWh <sup>3</sup>	2008 Full Annual Savings kWh <sup>4</sup>	2009 Full Annual Savings kWh <sup>5</sup>	2010 Full Annual Savings kWh <sup>6</sup>	2011 Full Annual Savings kWh <sup>7</sup>	2012 Full Annual Savings kWh <sup>8</sup>	2013 Full Annual Savings kWh <sup>9</sup>	2014 Full Annual Savings kWh <sup>10</sup>	2015 First Year Savings kWh <sup>11</sup>	Total Savings kWh	% kWh On-Peak for Annual kWh Savings
<b><u>Residential</u></b>													
Energy Star Lighting	0	0	16,868,856	53,980,919	24,546,059	24,671,212	11,507,031	2,106,009	0	2,319,792	2,886,911	136,750,781	24.23%
Refrigerator Recycling	0	1,226,873	1,682,143	3,572,164	5,577,683	2,923,536	2,909,452	2,106,009	1,859,872	2,467,100	1,073,515	25,398,347	16.85%
ES Manufactured Homes	0	0	0	228,000	9,792	69,180	80,189	0	0	0	0	387,161	23.44%
High Eff Residential AC	0	321,994	0	0	0	0	0	0	0	0	0	321,994	26.11%
Low Income	4,518	240,309	105,840	531,331	582,988	466,974	193,312	0	0	0	0	2,125,272	23.44%
Consumer Electronics/80 Plus	0	0	0	0	0	0	3,278,690	2,088,216	0	0	0	5,366,906	26.59%
Solar Thermal Water H.	0	0	0	0	0	0	42,358	8	58,668	15,110	9,522	125,666	21.97%
HER	0	0	0	0	0	0	0	0	0	0	7,726,917	544,030	21.21%
Demand Response	0	0	0	0	0	0	0	0	0	0	0	544,030	27.18%
	4,518	1,789,176	18,656,840	58,282,414	30,716,522	28,130,902	18,011,032	4,194,233	1,918,540	4,802,002	12,240,895	178,747,074	23.12%
<b><u>Commercial</u></b>													
Comm Construction	0	2,180,651	1,510,562	4,867,585	6,974,009	1,691,813	4,563,197	5,246,686	11,861,041	0	0	38,895,544	15.94%
Schools	0	3,116,325	1,802,028	3,264,958	3,052,071	1,870,398	1,153,881	3,392,964	2,214,482	1,588,536	304,258	21,759,901	14.99%
Comm Incentive	0	40,492,091	20,561,429	31,279,658	39,939,224	30,316,481	30,326,756	23,031,818	21,737,690	37,464,750	9,551,189	284,701,086	16.27%
SureBet Hotels/Motels	0	0	0	3,535,188	4,058,486	0	0	0	0	0	0	7,593,674	22.70%
Consumer Electronics/80 Plus	0	0	0	0	0	0	235,447	45,830	0	0	0	281,277	26.64%
Non-Profit Grants	147,196	112,049	174,287	258,172	407,891	585,604	230,035	105,843	218,381	367,276	187,494	2,794,228	16.27%
Commercial DR	0	0	0	0	0	0	0	0	0	0	10,250	10,250	10.11%
	147,196	45,901,116	24,048,306	43,205,561	54,431,681	34,464,296	36,509,316	31,823,141	36,031,594	39,420,562	10,053,191	356,035,960	16.30%
<b>Line loss multiplier</b>	<b>1.05</b>												
<b>On peak multiplier</b>	<b>2.00</b>												
<b>Portfolio Energy Credits</b>													
												<b>Residential</b>	<b>231,079,616</b>
												<b>Commercial</b>	<b>218,278,741</b>
												<b>Total DSM</b>	<b>449,358,357</b>
												<b>Portfolio Energy Credits for 2015<sup>12</sup></b>	<b>449,358,357</b>

**Notes for Table:**

- See Docket No. 06-08020
- See Docket No. 07-06049
- See Docket No. 08-08012
- See Docket No. 09-08017
- See Docket No. 10-10024
- See Combined Docket No. 12-03004, No. 12-03005 and No. 12-03006 for 2010 Savings.
- See Combined Docket No. 12-06052, No. 12-06053 and No. 12-08009 for 2011 Savings.
- See Combined Docket No. 13-07002, No. 12-06053 and No. 13-07005 for 2012 Savings.
- See Combined Docket No. 14-07007 and No. 14-07008 for 2013 Savings.
- See Combined Docket No. 15-06065 and No. 15-07004 for 2014 Savings.
- See Combined Docket No. 16-07001 and No. 16-07007 for 2015 Savings.
- Total PCs Claimed From Energy Efficiency Measures are calculated such that 50% of Total Savings (in kWh) included come from residential sources. See NRS 704.7821.
- See Docket No. 15-03042