

STATE OF NEVADA

PUBLIC UTILITIES COMMISSION

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January 27, 2011

Lorne Malkiewich, Director Legislative Counsel Bureau Capitol Complex Carson City, Nevada 89710

Dear Mr. Malkiewich:

This report to the Nevada Legislature was prepared by the Regulatory Operations Staff of the Public Utilities Commission of Nevada under the statutory requirements of NRS 704.7825(5) "to compile information that sets forth whether any [electric service] provider has used energy efficiency measures to comply with its [renewable energy] portfolio standard, and if so, the type of energy efficiency measures used and the amount of energy savings attributable to each such energy efficiency measure."

The establishment of Nevada's renewable portfolio standard for electric service providers is set forth in NRS 704.7801-7828. NRS 704.7821(2)(b) states that "Of the total amount of electricity that the provider is required to generate, acquire or save from portfolio energy systems or efficiency measures during each calendar year, not more than 25 percent of that amount may be based on energy efficiency measures. If the provider intends to use energy efficiency measures to comply with its portfolio standard during any calendar year, of the total amount of electricity saved from energy efficiency measures for which the provider seeks to obtain portfolio energy credits pursuant to this paragraph, at least 50 percent of that amount must be saved from energy efficiency measures installed at service locations of residential customers of the provider, unless a different percentage is approved by the Commission."

Energy savings resulting from implementation of efficiency measures are documented by electric service providers Nevada Power Co. and Sierra Pacific Power Co., operating subsidiaries of NV Energy, and Shell Energy North America (US), L. P. ("Shell Energy", service provider to the Barrick Goldstrike mines) in their annual portfolio standard compliance filings with the Commission. The most recent such filings for NV Energy were made in Docket No. 10-04002, and for Shell Energy in Docket No. 10-03029, and report savings from energy efficiency measures in excess of the limitations on allowances that can be claimed as portfolio credits. Energy savings reported herein are for calendar year 2009, the most recent year for which figures are available.

I. Definition of Demand Side Management ("DSM")

Demand Side Management ("DSM") programs are collectively defined as those comprising an electric service provider's demand side plan in NAC 704.9057: "Demand side plan" means the programs proposed by a utility to promote energy efficiency and conservation." NAC 704.90605 further defines energy efficiency as "a

modification of energy use patterns which results in the greater productive use of energy or a reduction in the consumption of electric power."

II. Current DSM Programs in Effect at NV Energy

The following DSM programs yielded credits claimed by NV Energy for 2009, as shown in the 2010 Portfolio Standard Annual Report for Compliance Year 2009, which was assigned Docket No. 10-04002. All programs have been authorized by the Commission and are in effect at both Nevada Power Co. and Sierra Pacific Power Co. subsidiaries unless otherwise indicated:

- Energy Star Appliances and Lighting. This program promotes the sale of household appliances that conform to Energy Star standards. Energy Star is a voluntary labeling program established by the U. S. Environmental Protection Administration and Department of Energy. Appliance units so labeled must be at least 15 percent more efficient than current federal standards. The program also currently promotes the sale and distribution of compact fluorescent light bulbs ("CFLs").
- <u>Refrigerator Recycling</u>. Removes and recycles second refrigerators (and/or stand alone freezers) owned by residential customers. Typically such units are more energy-intensive not only because they are older, but also because they are often located outside or in non-air conditioned space and thus require extra effort to offset climatic conditions. In addition to energy savings, secondary benefits include recycling of such materials as refrigerants, metal, plastics, and glass.
- Energy Star Manufactured Homes. The intent of this program is to switch placement of new manufactured homes built under HUD Manufactured Housing Standards with units built in compliance with substantially more stringent Energy Star standards. Key elements of such standards relate to energy-efficient building envelope, air distribution, and equipment installed (Sierra Pacific only).
- <u>Pool Pumps.</u> Provides rebates to customers for the purchase of energy efficient pool pumps. Customers filtering their pools with single-speed pumps were eligible under this program to upgrade to energy-efficient two-speed or variable speed pumps. (Nevada Power only)
- Energy Star Home Plus. A residential DSM project designed to accelerate the implementation of energy-efficient construction practices in the Las Vegas-area housing market. Energy Star-qualified homes must meet energy efficiency guidelines set by the U. S. Environmental Protection Agency, and must be at least 15% more energy efficient than homes built to the 2006 International Energy Conservation Code (2006 IECC). (Nevada Power only)
- Low Income A/C. The Low Income Air Conditioner ("A/C") Project is designed to replace the A/C units of low income customers whose A/C unit is older and declining in respect to reliability, maintenance and repair costs or has failed. The project replaces mostly SEER 8 A/C units with new SEER 13 units avoiding further large maintenance and repair cost and saves significant energy while providing the low income customer a reliably safe and comfortable living environment in terms of temperature in the residence. (Nevada Power only)

- <u>Low Income Assistance</u>. The Low Income Project facilitates the installation of energy efficiency weatherization measures in single-family and multi-family homes of residential customers in greatest need, specifically those with incomes between 150 percent of poverty level and 80 percent of county median income.
- <u>Sure Bet New Construction</u>. Provides financial incentives and technical assistance to building owners and developers to identify, validate, and implement energy efficiency measures. Funds are paid upon completion of construction, issuance of a certificate of occupancy, and demonstration that energy efficiency measures implemented have met the project requirements.
- <u>Sure Bet Schools</u>. This program facilitates energy efficiency improvements and peak demand reductions in public schools by providing design assistance and financial incentives to school districts.
- <u>Sure Bet Commercial Incentives</u>. This program's objective is to influence design and purchase decisions in the commercial sector by providing direct financial incentives and customer assistance through outreach activities and industry support.
- <u>Sure Bet Hotel/Motel</u>. Provides assistance to owners of small hotels and motels for the purpose of reducing energy consumption in unoccupied rooms. This is achieved through the installation of air-conditioning and heating controllers. Other initiatives include installation of devices to reduce energy use in lighting and by vending machines.
- 80 Plus. The purpose of this project is to promote the use of power supplies for commercial appliances (typically office applications such as desktop computers, servers, and printers) that convert AC to DC power with minimum efficiency level of 80 percent and minimum power correction factor of 90 percent.
- Non-Profit Agency Grants. Provides grants for upgrades for energy efficiency projects in new and existing commercial spaces leased or owned by non-profit organizations located in residential, office, and warehouse facilities.

III. Energy Efficiency Measures Undertaken by Shell Energy

Shell Energy claimed 30,602,152 kWh energy savings for the compliance year 2009 at the Barrick Goldstrike mine facilities it serves. In its compliance filing in Docket No. 10-03029, Shell Energy claimed that these savings are the result of improved management of liquid oxygen supplies resulting in reduced electric power consumption, as well as installation of optimization software to reduce electricity consumption at the mines' Roaster facility. Shell Energy did not calculate individual savings made by implementation of each measure.

IV. Measurements of Energy Efficiency and Savings

Energy efficiency and savings for DSM programs are estimated by means of measurement and verifications ("M&V") procedures. These are reported by utilities for each project proposed or implemented. The M&V process typically involves two separate calculations: First, baseline conditions are established to determine the potential savings a given measure can achieve. This is done by means of site inspections, phone surveys, spot measurements and commissioning activities, and estimates energy use requirements before a measure is implemented. Second, actual savings are sampled by comparing energy use levels after the measure is implemented with the baseline values

previously calculated, with any necessary adjustments made to account for climatic and other differences between the two periods evaluated.

IV. DSM Collaborative

The DSM Collaborative or "Working Group" was established in Docket Nos. 01-7004 and 01-7016, at which time the PUCN ordered Sierra Pacific and Nevada Power Cos. to "[W]ork collaboratively to develop a list of feasible projects, to determine the appropriate cost/benefit test(s), to determine the projects that should be proposed as either trial or full, to determine the appropriate amount that should be spent of demand-side projects, staff, rebates, etc., and to discuss and resolve any such matters that the parties deem appropriate."

In its Order in Docket No. 05-08019 and 05-08020 the PUCN ordered both utilities to "make an effort to expand participation [in the Collaborative] to include a wider base of constituencies in this process to ensure that programs are designed to deliver energy savings measures in a manner that is both efficient and meets the needs of the constituency".

The most recent meeting of the full Collaborative was held on Jan. 6, 2011, and included participation from NV Energy, Southwest Gas, PUCN staff, and the Southwest Energy Efficiency Project.

V. Summary of portfolio energy credits obtained from energy efficiency measures claimed by Nevada utilities

Table 1 below summarizes energy savings by programs described in Section II above for each of NV Energy's operating subsidiaries for the compliance year 2009, the most recent for which data are available. Total savings are shown, as well as savings claimed subject to the limitation requiring at least 50 percent from residential customers. Table 2 shows portfolio credits from energy efficiency measures for 2009 made by Shell Energy in serving the Barrick Goldstrike mines.

Table 1. NV Energy Portfolio Standard, Energy Savings from Efficiency Measures (kWh)
2009 Portfolio Compliance Year

	Nevada Power	Sierra Pacific	Total	SPPC Subject to Residential 50% Minimum Share	Total Utility Subject to Residential 50% Minimum Share
Residential					
Energy Star Lighting	320,061,671	140,370,526	460,432,197	140,370,526	460,432,197
Refrigerator Recycling	29,399,837	11,868,967	41,268,804	11,868,967	41,268,804
ES Manufactured Homes	0	583,416	583,416	583,416	583,416
ACLM	0	0	0	0	0
Home Energy Display	0	0	0	0	0
High Efficiency Res AC	145,068,869	426,383	145,495,252	426,383	145,495,252
Pool Pumps	6,063,153	0	6,063,153	0	6,063,153
ES Home Plus	1,981,726	0	1,981,726	0	1,981,726
Low Income AC	1,052,909	0	1,052,909	0	1,052,909
Low Income	8,038,530	2,226,917	10,265,447	2,226,917	10,265,447
	511,666,695	155,476,209	667,142,904	155,476,209	667,142,904
Commercial					

Commercial Construction	80,150,113	14,448,844	94,598,957	10,456,501	90,606,614
Schools	23,197,043	13,163,023	36,360,066	9,525,963	32,723,006
Commercial Incentives	315,777,885	175,748,532	491,526,417	127,187,660	442,965,545
Hotels/Motels	8,553,336	8,937,953	17,491,289	6,468,318	15,021,654
80 Plus	2,612,920	1,269,455	3,882,375	918,693	3,531,613
Non-Profit Agency					
Grants	1,364,244	1,269,981	2,634,225	919,074	2,283,318
	431,655,541	214,837,788	646,493,329	155,476,209	587,131,750
Total Residential and				-	
Commercial	943,322,236	370,313,997	1,313,636,233	310,952,418	1,254,274,654

Table 2. Shell Energy Portfolio Standard, Energy Savings from Efficiency Measures (kWh) 2009 Portfolio Compliance Year

Credits claimed and approved by the Commission for 2009 Energy efficiency credits carried forward from 2009 Total credits for 2009	43,011,348 10,340,869 53,352,217
Maximum allowed under 25% energy efficiency limitation	30,602,152
Excess credits to be carried forward to 2010	22,750,065

Please feel free to contact me should you have questions about this report.

Sincerely,

Crystal Jackson
Executive Director