State Report – Nevada

This Appendix furnishes detailed information for Nevada, including:

- Statistical Overview – Key characteristics for Nevada households and housing units.
- Needs Assessment – Statistics for Nevada low-income households and estimates of the need for energy affordability and energy efficiency programs.
- Legal and Regulatory Framework – A description of the legal and regulatory framework for low-income programs and identification of any legal or regulatory barriers to program design enhancements.
- Low-Income Affordability Programs – Information on Nevada's publicly funded affordability programs, the ratepayer-funded affordability programs targeted by this study, and an assessment of the share of need currently being met.
- Affordability Program Evaluation – A summary of the available evaluation findings regarding the performance of Nevada's affordability programs.
- Energy Efficiency Programs – Information on Nevada's publicly funded energy efficiency programs and the ratepayer-funded energy efficiency programs targeted by this study.
- Energy Efficiency Program Evaluation – A summary of the available evaluation findings regarding the performance of Nevada's energy efficiency programs.

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I. Statistical Overview

Nevada is the 35th largest state in terms of population. It is about average in income and poverty (20th in median family income in 2005 and 36th in individuals below poverty). An important challenge for low-income households in Nevada is the high cost of living. In 2005, the median housing value was $283,400 and the median rent was $861.

Most housing units (93%) in Nevada are heated with regulated fuels, predominantly natural gas (60%). Energy prices are moderate, with electric 8% above the national average; natural gas is 3% below the national average. The weather is moderate in the winter (3,802 heating degree days compared to the national average of 4,524) and hot in the summer (1,921 cooling degree days compared to the national average of 1,242). Households are most at risk from the cold during the months of November through March, and are most at risk from the heat during the months of May through September.

The following population and housing statistics were developed using data from the 2005 American Community Survey (ACS).

Population Profile

Total Population	2.4 million
Individuals 65 and Over	0.3 million (13%)
Individuals Under 18	0.6 million (25%)
Individuals 5 & Over Who Speak a Language Other than English at Home	0.6 million (25%)
Individuals Below Poverty	11% (36th nationally)

Household Profile

Total Households	0.9 million
Median Household Income	$49,169 (17th nationally)
Homeowners	
Total Homeowners	0.6 million (61%)
Median Value	$283,400 (6th nationally)
Median Housing Burden	24%
Renters	
Total Renters	0.4 million (39%)
Median Rent	$861
Median Rental Burden	29%

The following energy statistics were derived from a number of sources, including the 2005 American Community Survey (ACS), the Energy Information Administration's (EIA) supplier data collection, and NOAA's National Climatic Data Center (NCDC).

Energy Profile

Home Heating Fuel (Source: 2005 ACS)	
Utility gas	60%
Electricity	33%
Fuel Oil	1%
Other	6%
2005 Energy Prices (Source: EIA)	
Natural gas, per ccf	$1.246
Electricity, per kWh	$0.1020
Fuel oil, per gallon	n/a
Weather (Source: NCDC)	
Heating Degree Days	3,802
Months of Winter (i.e., average temperature below 50°)	5
Cooling Degree Days	1,921
Months of Summer (i.e., average temperature above 70°)	5
Days with Temperatures Over 90°	68

[Note: Updates are available for energy prices and weather for 2006. Population statistics updates for 2006 will be available in August 2007.]

II. Profile of Low Income Households

Nevada policymakers have chosen to target the publicly funded and ratepayer-funded low income programs at households with incomes at or below 150% of the HHS Poverty Guideline. For 2005, the income standard for a one-person household was about $14,355 and the income standard for a four-person household was $29,025. For the analysis of low-income households in Nevada, we will focus on households with incomes at or below 150% of the HHS Poverty Guideline.

Table 1 furnishes information on the number of Nevada households with incomes that qualify them for the LIHEAP program and the ratepayer-funded programs. About 17% of Nevada households are income-eligible for these programs.

Table 1
Eligibility for Ratepayer Programs (2005)

Poverty Group	Number of Households	Percent of Households
Income at or below 150%	158,480	17%
Income above 150%	747,815	83%
ALL HOUSEHOLDS	906,295	100%

Source: 2005 ACS

Tables 2A and 2B furnish information on main heating fuels and housing unit type for Nevada low-income households. Table 2A shows that about 45% of low-income households use natural gas as their main heating fuel, less than the 60% for all Nevada households. Low-income households are more likely to heat with electricity and other fuels than the Nevada average. Table 2B shows that one of the reasons for the higher rate of electric main heat is that 39% of low-income households are in buildings with 5 or more units. Many multiunit buildings use electric space heating rather than natural gas or fuel oil. About 40% of low-income households live in single family homes, while 12% live in buildings with 2-4 units. Ten percent of low-income households live in mobile homes.

Table 2A
Main Heating Fuel for Low-Income Households (2005)

Main Heating Fuel	Number of Households	Percent of Households
Electricity	75,723	48%
Fuel Oil	1,284	1%
No fuel used	649	0%
Other Fuels	9,746	6%
Utility Gas	71,078	45%
ALL LOW INCOME	158,480	100%

Source: 2005 ACS

Table 2B
Housing Unit Type for Low-Income Households (2005)

Housing Unit Type	Number of Households	Percent of Households
Boat, RV, Van, etc	388	1%
Building with 2-4 units	18,362	12%
Building with 5+	61,331	39%
Mobile Home	15,326	10%
Single Family	63,073	40%
ALL LOW INCOME	158,480	100%

Source: 2005 ACS

About 158,000 Nevada households are categorized as low-income. However, only those households that directly pay an electric bill or a gas bill are eligible for the Nevada ratepayer-funded programs. Table 2C shows that about 91% of low-income households directly pay an electric bill and that about 51% of low-income households directly pay a gas bill.

Table 2C
Low-Income Households
Direct Payment for Electric and/or Gas Bill (2005)

Poverty Group	Number of Households	Percent of Households
Electric Bill - Direct Payment	143,667	91%
Gas Bill - Direct Payment	81,178	51%
ALL INCOME ELIGIBLE	158,480	100%

Source: 2005 ACS

Tables 3A and 3B show the distribution of electric bills and burden for low-income households that do not heat with electricity and reported electric expenditures separately from gas expenditures.[1] Table 3A shows the distribution of electric expenditures for households that do not have electricity as their main heating fuel and Table 3B shows the electric energy burden.[2] Among these households, about 56% have electric bill that is less than $1,000 per year while about 25% have an annual electric bill of $1,500 or more. Electric energy burden is less than 5% of income for about 30% of these households, while it is greater than 15% of income for 32% of households.[3]

[1]The ACS allows respondents who have a combined electric and gas bill from one utility to report the total for both fuels. Those households are not included in these tables.
[2] Electric energy burden is defined as the household's annual electric bill divided by the household's annual income.
[3] About 13% of households have their electric usage included in their rent. These households have a nonzero electric energy burden, since part of their rent is used to pay the electric bill. However, since there is no way to measure the share of rent that is used to pay the electric bill, electric energy burden is unknown for these households.

Table 3A
Electric Bills for Low-Income Households without Electric Heat (2005)

Electric Bill	Number of Households	Percent of Households
$1 to less than $500	15,339	21%
$500 to less than $1,000	24,822	35%
$1,000 to less than $1,500	13,120	18%
$1,500 or more	18,179	25%
TOTAL	71,460	100%

Source: 2005 ACS

Table 3B
Electric Burden for Low-Income Households without Electric Heat (2005)

Electric Burden	Number of Households	Percent of Households
0% to less than 5%	21,086	30%
5% to less than 10%	18,880	26%
10% to less than 15%	8,670	12%
15% or more	22,824	32%
TOTAL	71,460	100%

Source: 2005 ACS

Tables 4A and 4B show the distribution of electric bills and burden for low-income households that heat with electricity. Table 4A shows the distribution of electric expenditures and Table 4B shows the electric energy burden. Among these households, about 43% have an electric bill that is less than $1,000 per year while about 35% have an annual electric bill of $1,500 or more. Electric energy burden is less than 5% of income for about 22% of these households, while it is greater than 15% of income for 32%.

Table 4A
Electric Bills for Low-Income Households with Electric Heat (2005)

Electric Bill	Number of Households	Percent of Households
$1 to less than $500	10,707	16%
$500 to less than $1,000	17,889	27%
$1,000 to less than $1,500	14,115	22%
$1,500 or more	22,796	35%
TOTAL	65,507	100%

Source: 2005 ACS

Table 4B
Electric Burden for Low-Income Households with Electric Heat (2005)

Electric Burden	Number of Households	Percent of Households
0% to less than 5%	14,186	22%
5% to less than 10%	21,979	34%
10% to less than 15%	8,444	13%
15% or more	20,898	32%
TOTAL	65,507	100%

Source: 2005 ACS

Tables 5A and 5B show the distribution of gas bills and burden for low-income households that heat with gas and report their gas bills separately from their electric bills. Table 5A shows the distribution of gas expenditures and Table 5B shows the gas energy burden. Among these households, about 79% have a gas bill that is less than $1,000 per year while about 9% have an annual gas bill of $1,500 or more. Gas energy burden is less than 5% of income for about 51% of these households, while it is greater than 15% of income for 21%.

Table 5A
Gas Bills for Low-Income Households (2005)

Gas Bill	Number of Households	Percent of Households
$1 to less than $500	37,063	50%
$500 to less than $1,000	21,505	29%
$1,000 to less than $1,500	9,101	12%
$1,500 or more	6,809	9%
TOTAL	74,478	100%

Source: 2005 ACS

Table 5B
Gas Burden for Low-Income Households (2005)

Gas Burden	Number of Households	Percent of Households
0% to less than 5%	37,722	51%
5% to less than 10%	14,161	19%
10% to less than 15%	7,225	10%
15% or more	15,370	21%
TOTAL	74,478	100%

Source: 2005 ACS

Tables 6A and 6B show the distribution of total electric and gas expenditures for low-income households that pay bills directly to a utility company. Table 6A shows the distribution of electric and gas expenditures and Table 6B shows the electric and gas energy burden. About 91% of households have an electric bill, a gas bill, or both. Over one-fourth of low-income households have a total electric and gas bill that is less than $1,000 per year while 16% have an annual bill of $2,500 or more. Electric and gas energy burden is less than 5% of income for 11% of low-income households, while it is greater than 25% of income for more than one in five low income households.

Table 6A
Electric and Gas Bills for Low-Income Households (2005)

Electric and Gas Bill	Number of Households	Percent of Households
$1 to less than $500	9,899	6%
$500 to less than $1,000	35,047	22%
$1,000 to less than $1,500	32,509	21%
$1,500 to less than $2,000	26,461	17%
$2,000 to less than $2,500	14,350	9%
$2,500 or more	25,586	16%
No Bill	14,628	9%
ALL INCOME ELIGIBLE	158,480	100%

Source: 2005 ACS

Table 6B
Electric and Gas Burden for Low-Income Households (2005)

Electric and Gas Burden	Number of Households	Percent of Households
0% to less than 5%	17,932	11%
5% to less than 10%	45,392	29%
10% to less than 15%	23,735	15%
15% to less than 20%	14,136	9%
20% to less than 25%	7,948	5%
25% or more	34,709	22%
No Bill	14,628	9%
ALL INCOME ELIGIBLE	158,480	100%

Source: 2005 ACS

We have developed a series of demographic tables for households that pay an electric or gas bill. Table 7 furnishes information on the presence of vulnerable members in the household and illustrates what share of the population might be particularly susceptible to energy-related health risks. Table 8 shows the household structure for these households, and Table 9 presents statistics on the language spoken at home by these households. About one-fourth of the low-income households with utility bills are elderly. About one-third do not have any vulnerable household members. Some programs choose to target vulnerable households with outreach procedures and may offer priority to these households.

Table 7
Vulnerability Status for Low-Income Households with Utility Bills (2005)

Vulnerability Type	Number of Households	Percent of Households
Disabled	20,793	14%
Elderly	36,110	25%
No Vulnerable Members	48,704	34%
Young Child	38,245	27%
Total	143,852	100%

Source: 2005 ACS

More than four in ten low-income households have children, almost one-fourth are headed by a person 65 or older, and just over one-third are other household types. Single parent families with children represent about one-fifth of low-income households with utility bills.

Table 8
Household Type for Low-Income Households with Utility Bills (2005)

Household Type	Number of Households	Percent of Households
Married with Children	29,363	20%
Other	50,421	35%
Senior Head of Household	33,813	24%
Single with Children	30,255	21%
TOTAL	143,852	100%

Source: 2005 ACS

Over one-fourth of low income households speak Spanish and about 3% speak an Indo-European language (e.g., Russian, Polish). In total, program managers might find that more than one-third of eligible households speak a language other than English at home.

Table 9
Language Spoken at Home by Low-Income Households with Utility Bills (2005)

Language Spoken	Number of Households	Percent of Households
English	91,741	64%
Spanish	38,623	27%
Indo-European	4,940	3%
Other	8,548	6%
TOTAL	143,852	100%

Source: 2005 ACS

III. Legal and Regulatory Framework

The Nevada universal service program is a creature of statute. Legislatively authorized in 2001, the "Fund for Energy Assistance and Conservation" was set aside as a "special revenue fund" in the state treasury. Out of this fund, the legislature created a bill payment assistance program under the administration of the state's Division of Welfare and Supportive Services[4] and an energy efficiency program under the administration of the Housing Division.[5]

A. The Statutory Program

The Nevada program is designed to be comprehensive in nature. In addition to using funds generated by the state's "universal energy charge," under the statute, "all money received from private or public sources to carry out the purposes of this chapter must be deposited in the state treasury for credit to the Fund."[6] The Welfare Division is directed to ensure, to the extent practicable, "that the money in the Fund is administered in a manner which is coordinated with all other sources of money that are available for energy assistance and conservation, including, without limitation, money contributed from private sources, money obtained from the Federal Government and money obtained from any agency or instrumentality of this State or political subdivision of this State."[7]

The legislature directed both the Welfare Division of the Department of Health and Human Services (for bill payment assistance) and the Housing Division of the Department of Business and Industry (for weatherization and efficiency assistance) to "coordinate with other federal, state and local agencies that provide energy assistance or conservation services to low-income persons. . ."[8]

The Nevada program provides no discretion on how to utilize the universal service funding. According to the statute, seventy-five percent (75%) of the money in the Fund *must* be distributed to the Welfare Division "for programs to assist eligible households in paying for natural gas and electricity."[9] This funding requirement, however, is both a floor and a ceiling. The Division, in other words, does not have the discretion to use more than 75% for such purposes.[10] The legislature further provides that twenty-five percent of the money in the Fund *must* be distributed to the Housing Division for programs of "energy conservation, weatherization and energy efficiency for eligible households."[11]

Out of its funding, the statute provides that the Welfare Division may use its universal service money "*only* to. . .assist eligible households in paying for natural gas and electricity."[12] In addition, the funds can be used for the related purposes of engaging in consumer outreach, program design, and program evaluation. The Housing Division is authorized to use its funding only to provide an eligible household with services of basic home energy conservation and home energy efficiency or to assist an eligible household to acquire such services."[13] The legislature explicitly included "services of load management" within the rubric of these

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[4] N.R.S., §702.250(1) (2007).
[5] N.R.S., §702.270(1) (2007).
[6] N.R.S., §702.250(2) (2007).
[7] N.R.S., §702.250(3) (2007).
[8] N.R.S., §702.260(8)(b) (2007) (Welfare Division); N.R.S., §702.270(6)(c) (207) (Housing Division).
[9] N.R.S., §702.260(1) (2007). (emphasis added).
[10] The requirement that the Division "must" use 75% of the funding for bill payment assistance normally carries with it the implication that the Division "may" use more than 75% should it choose.
[11] N.R.S., §702.270(1) (2007).
[12] N.R.S., §702.260(2)(a) (2007). (emphasis added).
[13] N.R.S., §702.270(2) (2007).

programs.[14] The Housing Division may, also, “pay for appropriate improvements associated with energy conservation, weatherization and energy efficiency,” engage in consumer outreach, and pay for program design and evaluation.

Though similar in structure, the bill payment assistance in Nevada differs somewhat in purpose from that distributed in related programs in other states. Like many states, Nevada pays percentage-of-income based benefits to its program participants. The Nevada program is, however, not aimed at making bills affordable. Instead, it has more of an equity emphasis to it. Rather than tying bill payment assistance to an affordable percentage of income, the Nevada statute provides that the amount of assistance provided to each household shall, to the extent practicable, be “sufficient to reduce the percentage of the household’s income that is spent on natural gas and electricity to the median percentage of household income spent on natural gas and electricity statewide.”[15] The percentage of income home energy burden for the median-income household, in other words, was, by law, deemed to be the objective of the program irrespective of whether that median income burden is above, below or precisely equal to that which is affordable.

The Nevada low-income energy assistance programs are funded through a legislatively-imposed “universal energy charge.”[16] The universal energy charge is imposed on “each retail customer,”[17] which is explicitly defined to include “without limitation, a residential, commercial or industrial end-use customer that purchases natural gas or electricity for consumption” in the state.[18] While customers of certain types of utilities are exempt from paying the universal energy charge,[19] those customers are also prohibited from receiving any “money or other assistance” from the universal energy fund.[20]

The Nevada statute is specifically designed to impose the universal energy charge on customers that have bypassed the distribution systems of the state’s electric and/or natural gas utilities. In the event that a customer uses the distribution system of the local public utility, the utility is directed to collect the universal service charge as a separately stated line-item on each customer’s distribution bill.[21] If a retail customer does *not* use the local distribution utility, however, the statute imposes the responsibility on each such customer to remit the appropriate funds to the state.

The Nevada program is designed so that the program funding is set by statute, rather than fluctuating to meet the required needs of program participants. A uniform charge of 3.30 mils per therm of natural gas, and 0.39 mils per kilowatthour (kWh) of electricity, is imposed on each retail customer.[22] Statutory caps were created, however, on the quarterly payment that any single customer or “multiple retail customers under common ownership and control” are required to pay.[23] The only role played by the Nevada utility commission in the administration of the state’s universal service program is the administration of the imposition and collection of the funding.

[14] N.R.S., §702(2)(a) (2007).
[15] N.R.S., §702.260(6)(a) (2007).
[16] N.R.S., §§ 702.100 (2007) and 702.160 (2007).
[17] N.R.S. §702.160(1) (2007).
[18] N.R.S., §702.090(2) (2007).
[19] For example, customers of Rural Electric Cooperatives (RECs) do not pay the universal service charge. This statutory mandate, however, was largely rendered irrelevant by program provisions that allowed customers of such utilities to receive greater LIHEAP benefits, with the reduction in LIHEAP benefits in the rest of the state being made up out of universal service funds.
[20] N.R.S., §702.150 (2007).
[21] N.R.S., §702.160(3) (2007).
[22] N.R.S., §702.160(1) (2007).
[23] Quarterly payments exceeding $25,000 are subject to refund under the statute. N.R.S., §702.160(5) (2007).

Given the limited funding provided under the Nevada statute, the program administrators are given flexibility in defining both what population they are to serve and precisely what amount of assistance –as opposed to what *type* of assistance—they are to provide. The Welfare Division may provide assistance to households with annual income of "not more than 150% of the federally designated level signifying poverty. . ."[24] In times of constrained funding, therefore, it would appear that the Welfare Division could limit eligibility below this level if needed to stay within budget. Moreover, the Welfare Division's obligation to distribute bill payment assistance to reduce home energy burdens to that of the statewide median is only "to the extent practicable."[25] In times of constrained funding, it may not be "practicable" to achieve that statutory objective.[26] Finally, while the Welfare Division is "*authorized* to render emergency assistance to a household if an emergency related to the cost or availability of natural gas or electricity threatens the health or safety of one or more of the members of the household,"[27] it is not *required* to render such emergency assistance. In times of constrained funding, it may choose not to exercise those actions which the program's statutory charter authorizes but does not mandate. The Welfare Division is, however, not completely unconstrained in its decisionmaking. The statute specifically provides that the Division is to prepare an annual plan and work with a general oversight group in so doing.[28]

Similar observations can be made about the administration of the energy efficiency funding provided pursuant to the statute.[29]

B. The Articulation of Policy in Nevada

While Nevada regulators had not previously adopted a low-income rate affordability program for electric and/or natural gas customers prior to the enactment of the universal service statute, the state Public Service Commission had, in a variety of circumstances, addressed the underlying issues presented by such programs. Perhaps most directly, in 1987, the Commission approved an experimental telephone lifeline service tariff proposed by Nevada Bell Telephone Company.[30] Under its original proposal, Nevada Bell offered a program directed toward households with incomes at or below $10,000. The Nevada Bell program would provide 30-call monthly allowance at a $6 rate, with each call over the 30-call allowance costing $0.15 per call. According to the Company, it was proposing the Lifeline program in response to testimony by Nevada's Division for Aging Services regarding the need for discount local telephone service.

The Division, however, objected to the specifics of Nevada Bell's proposal. According to its response, aging customers made four phone calls a day, 75% of which were for necessary services. In addition, the Division argued that eligibility should be tied to a percentage of poverty rather than to an absolute income level of $10,000. Nevada Bell accepted those critiques, changing its program proposal to offer a flat monthly discount for households with income at or below 150% of the Federal Poverty Level. The program would be funded by a surcharge on other customers.

The Nevada Commission held a prehearing conference devoted exclusively to the legal issue of whether it had jurisdiction to approve the proposed Lifeline rate. Nevada Bell, MCI and the Commission staff argued that whether the proposed Lifeline rate was discriminatory, unjust or

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[24] N.R.S., §702.260(3) (2007).
[25] N.R.S., §702.260(6)(a) (2007).
[26] How the Welfare Division would *actually* respond to funding constraints is, of course, speculative. Whether the Division would reduce benefit levels (by increasing the percentage of income burden) or reduce eligibility, or engage in some other action, cannot be determined in the abstract. This discussion only identifies what the Division is *authorized* to determine.
[27] N.R.S., §702.260(4) (2007).
[28] N.R.S., §702.280 (2007).
[29] N.R.S., §§702.270(3) and 702.270(4) (2007).
[30] Re. Nevada Bell, 81 PUR4th 110 (Nevada PSC 1987).

preferential was a question of fact and not of law. Accordingly, these parties argued, the question could only be determined based on the evidence after hearing. In contrast, AT&T, Mountain States Legal Foundation and Southwest Gas Company argued that the Commission lacked statutory authority to adopt the Lifeline proposal. US Sprint argued that the Commission clearly had both the authority and the jurisdiction to consider the Lifeline proposal.

Nevada Bell presented testimony that the proposed Lifeline program would improve the value of the entire telephone network. They argued that “if a significant number of low income customers were forced to discontinue telephone service because of high rates, then there would be a reduction in the value of the telephone service to existing customers.”[31] Bell testified that “trying to keep everyone on line is the concept of universal service, and any changes that affect such service are matters appropriately addressed by the Commission.” [32] According to Bell, “if customers leave the phone system due to price sensitivity, the value of service to the remaining customers declines.” Bell argued that “this loss of economic efficiency has served as a rationale for the dominance of the universal service objective for the past 50 years.”[33] Bell continued, however, to assert that “drop-off was not the only factor [to] consider before implementing the Lifeline program because people may be sacrificing other needs to maintain their telephone service.”

Mountain States Legal Foundation responded that the Lifeline program “would be but another public assistance program [added] to an already exiting plathora (sic) of welfare program.”[34] Moreover, the Mountain States witness said, since not all households that are eligible for the program would participate in the program, “ineligible low income customers would be taxed for the surcharge although they were in the same economic class as those who qualified for the Lifeline program.” Significant disagreement existed between witnesses over both the size of the eligible population and the proportion of the eligible population that would actually participate in the proposed Lifeline program once offered.

The Nevada Commission approved the Nevada Bell proposal. According to the Commission:

> . . .Nevada Bell had determined that no drop-off has occurred in its own system as a result of its rate increases. However, although drop-off by itself may indicate there is no need for the Lifeline program, the evidence presented by the [Aging] Division indicates otherwise. The Division presented evidence that potential Lifeline users were sacrificing other necessities such as food and medicine in order to maintain their phone service. Therefore, one cannot rely on the drop-off rate as the sole criteria in determining when to implement the Lifeline program.[35]

The Commission thus held that it “should approve Nevada Bell’s proposed experimental Lifeline program on the terms as proposed by Nevada Bell. . .”[36]

The Commission then ducked the funding issue. During the course of the hearing, Nevada Bell offered to pay for the costs of the experimental program through shareholders, thus precluding the need for the Commission to address “the legal issues raised by some of the parties concerning the legality of the $0.25 access charge.”[37]

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[31] 81 PUR4th at 114.
[32] Id., at 115.
[33] Id., at 119.
[34] Id., at 125.
[35] 81 PUR4th at 129.
[36] The Commission directed certain modifications to the program on matters not relevant here. Id.
[37] Id., at 129.

The Commission rejected the arguments, however, that the discount violated statutory provisions prohibiting discriminatory rates. “Since this docket is to remain open to evaluate the data from the experimental program,” the Commission held, the Commission “is merely continuing its investigation into the feasibility of a permanent Lifeline program.”[38] While acknowledging that some parties had argued that the Lifeline rate was in violation of statutory provisions, the Commission noted further that other parties such as Nevada Bell and the Staff indicated that the Commission “must first ***hold a hearing, after due investigation***, to determine whether the proposed Lifeline program is unjust, unreasonable, discriminatory or preferential.”[39] (emphasis added). By holding the docket open to evaluate the data generated through the program, the Commission said, it was engaging in precisely the type of investigation contemplated by the statute in support of the hearing process.[40] The Commission held that it was statutorily authorized “to conduct and continue its investigation into the Lifeline rates.”[41]

Despite the seemingly favorable Bell decision, while the Nevada Commission has articulated several principles that could be used to support low-income rates, it has not consistently rendered opinions favorable to rate discounts generally or to providing low-income relief in particular. The Commission has, for example, expressed its willingness to bend on its adherence to the application of strict cost of service principles in order to deliver rate relief to Nevada consumers. In a 2002 rate decision involving Nevada Power Company, the Commission discussed the role of cost-based rates. The Commission observed that in the 18 years since its decision in the 1983 Nevada Power general rate case, it had considered four different stipulations reducing that company’s rates, three of which did not move residential ratepayers toward cost based rates. The Commission approved each of those four stipulations, even though only one “addressed moving the residential customer class towards cost based rates.”[42] In discussing those stipulations, the Commission noted:

> While the orders’ language varied among these three stipulations, the meaning was the same; the Commission found these settlements to be in the public interest and thus accepted them. Therefore, it must be presumed that the Commission found other public policy issues being served by these settlements that were more pressing than a move toward cost based rates, or the settlements would have been rejected.[43]

The mere fact that a program is designed to assist low-income customers is not a “public policy issue,” in the word of the Nevada Power order, sufficient unto itself to result in approval of utility expenditures on such a program in Nevada. The Commission, for example, disapproved cost recovery for a utility checkoff program proposed by Sierra Pacific Power Company.[44] In this proceeding, the utility sought to recover the costs of its Special Assistance Fund for Energy (SAFE). Through the program, Sierra Pacific solicited funds from ratepayers, which it then matched with shareholder funding. After noting that “the company’s position is that ratepayers benefit from the SAFE program and they should bear the cost of administering it,” the Commission rejected that argument. “We need not determine who benefits from the program in order to resolve the issue. This charitable program was established by the shareholders and designed to operate on funds provided by the shareholders and by voluntary contributions from

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[38] 81 PUR4th at 130.
[39] Nevada’s statute provides that “”If, upon any hearing and after due investigation, the rates, tolls, charges, schedules, or joints rates shall be found to be unjust, unreasonable or unjustly discriminatory, or to be preferential . . .” NRS 704.120.
[40] Id., at 130, citing American Hoescht Corp. v. Massach8setts Department of Public Utilities, 379 Mass. 408, 399 N.E.2d 1 (1980) (approving experimental electric rate structure for low-income elderly customers).
[41] 81 PUR4th at 133.
[42] Re. Nevada Power Company, 216 PUR4th 457, 539 (NV PSC 2002).
[43] Id.
[44] 73 PUR4th 306, 343 (NV PSC 1985).

others. . .As it is a shareholders' program, the shareholders should devise an appropriate method of funding it. Involuntary contributions from ratepayers may not be used. . ."[45]

The fact that it was a program to assist low-income customers did not allow the company to receive cost recovery. "The commission agrees with the shareholders and the company that assisting needy persons with utility bills is a worthwhile project and one that deserves support. We encourage the shareholders to continue the program, but acknowledge that they should also bear the responsibility for the advertising associated with the administration of the program."[46] The *Sierra Pacific Power* decision should not, however, be read too broadly. The Commission was not impressed with the fact that "the company seeks to recover an advertising expense of $37,655 to collect $59,390."[47]

In contrast to this Sierra Pacific decision, the fact that a move away from cost-based rates can be used to mitigate the economic burdens imposed on vulnerable customers was acknowledged by the Nevada Commission in 2002. In its 2002 Nevada Power Company rate decision,[48] the Commission decided not to move residential customers toward cost-based rates. In explaining its rationale, the Commission noted that there were sound reasons not to mechanistically apply a cost-of-service mandate. In 2002, the Commission said, the "current southern Nevada economic slowdown has detrimentally affected both residential consumers and commercial entities."[49] The Commission continued, observing that "during this difficult time, all customers are looking toward this Commission to mitigate the historically high energy rates."[50] The Commission ultimately decided to "hold[. . .] in abeyance further movement of the residential customer class to cost based rates."[51] It reasoned that "while additional movement of the residential customer classes towards cost based rates would provide a measure of relief to the other customer classes, additional movement of the residential customer classes toward cost based rates would aggravate the residential customer classes current economic situation."[52]

The decision was made easier by the fact that the Commission observed that "historically, southern Nevada economic slowdowns tend to have a life cycle of eighteen to twenty-four months. . .Accordingly, the suspension of the residential customer classes' movement to cost based rates is anticipated to be of limited duration."[53]

The Commission decision in the Nevada Power case should come as no surprise. The Commission had previously explicitly stated that "the commission is of the opinion that the theory of cost of service should be given consideration on the formulation of rates; however, the guidelines offered by a cost-of-service study in the setting of rates must be tempered with other factors such as value of service, price elasticity, conservation considerations and historical rate design. Thus, although the commission considers data on the cost of service to be necessary and valuable in the setting of rates, it does not consider it to be the only factor in the rate-making process."[54]

The above decisions should not be read as indicating that the Nevada Commission would be inclined, without considerable documentation, to approve rates that are not based on cost-of-service principles. The Commission disapproved a proposed employee discount, for example, holding that the proposed discount was discriminatory in contravention of statute.[55] The

[45] Id., at 343.
[46] Id.
[47] Id.
[48] Re. Nevada Power Company, 216 PUR4th 457 (NV PSC 2002).
[49] Id., at 539.
[50] Id.
[51] Id., at 539.
[52] Id.
[53] Id.
[54] Re. Sierra Pacific Power Company, 10 PUR4th 461, 465 (NV PSC 1975).
[55] Re. CP National Corporation, 38 PUR4th 277, 282 (NV PSC 1980).

Commission did not find this to be the case as a matter of law, however. Rather, the Commission found the employees discounts to be "unreasonable because. . .they involve the sale of power and gas at below cost."[56] Noting that the Commission's disapproval of employee discounts had "already been thoroughly considered and found wanting" by a local trial court, the Commission nonetheless stated that "*the facts involved in the instant proceeding are markedly different* from the facts in that action."[57] (emphasis added). In a decision that mirrored the Staff's discussion in its telephone Lifeline decision, the Commission then held that "the *evidence of record* indicates that employee discounts are unreasonable and discriminatory, contrary to statutory mandate."[58] (emphasis added).

Guidance on the type of public interest factors that the Nevada Commission might consider can be found in its decisions regarding the proper economic evaluation of demand side management (DSM) measures implemented by the state's electric utilities. Under the Commission's own regulations, the "basic criterion" to be considered in comparing various supply and demand side strategies is the "present worth of revenue requirement" (PWRR).[59] This "least-cost" principle, in other words, is to electric resource planning what the "cost-of-service" principle is to ratemaking.

While the PWRR cost-effectiveness test may be the "basic" criterion the Nevada Commission applies to its resource planning, it is not the *only* such criterion. "It is the starting point of the analysis. It is not the only determinative factor. Other considerations are also important."[60] According to the Commission "definitionally, "basic" criteria is a foundation, a starting point; it is not where the evaluation ends."[61] The Commission noted that, in addition, "reliability is always a issue as are regulatory and financial constraints."[62] It held that "another criteria to be considered by the utility is avoidance of risk."[63]

> The Commission cannot ignore these varying emphases. It is the Commission's responsibility to regulate public utilities in the public interest. Arguably, if evaluating demand-side options solely on the basis of PWRR might produce a higher overall rate and a system with less reliability, the public interest is not being served. Thus, other factors should be considered. [Commission regulations] allow[…] for this further consideration; NAC 704.934 requires that equitable considerations for various groups of ratepayers be taken into account.[64]

C. Summary and Conclusions

In sum, the Nevada low-income energy assistance and conservation programs are creatures of statute. By enacting this law, the Nevada legislature removed any question but that low-income affordability programs are consistent with statute. In the absence of such legislation, it is not clear whether or not the Commission would have approved an affordability program. While the Commission had disapproved an employee discount, it had approved a telephone Lifeline program. While the commission articulated its adherence to cost-of-service principles, it varied from that principle when necessary to provide relief from historically high energy bills. The Commission, on both rate and resource planning issues, found that regulation "in the public interest" included such factors as risk to the system, system reliability and equity considerations.

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56 Id., at 282.
57 Id., at 280.
58 Id., at 282.
59 Re. Nevada Power Company, 87 PUR4th at 233, 251 (1987).
60 Id.
61 Re. Nevada Power company, 78 PUR4th 525, 547 (NV PSC 1986).
62 Id.
63 78 PUR4th at 547.
64 78 PUR4th at 548.

It expressly found that “other public policy issues” could, at any given time, be “more pressing” than the need for cost based rates.

Several aspects of the Nevada universal service program (and its underlying funding) are noteworthy. The statute provides that the state universal service fund is to capture all public and private funding to be devoted to the program. While the state appears to capture LIHEAP funding, however, there has been no subsequent discussion about capturing public funding such as FEMA or HUD utility allowance funding. Nevada is noteworthy, too, in that it explicitly extends its universal service funding to all retail customers. Not only are non-residential not exempt from the universal service charge, but a specific statutory process for collecting the charge from customers who do not take service off of the distribution system has been created. Capping total collections from non-residential customers is an innovation in Nevada not commonly found elsewhere.

The statutory mix of rate affordability and energy efficiency funding in Nevada is unique. Not only does the statute explicitly set the rate at which funds will be collected (on a per-therm and per-kWh charge), but it mandates the distribution of funds between rate affordability (75%) and energy efficiency (25%) program uses. Despite this statutory prescription of funding distribution, the Nevada program mandates the coordination of the rate affordability and energy efficiency programs. The statute requires preparation of a joint annual program plan, and creates a general oversight committee which is to be involved with the preparation of that plan.

Finally, the Nevada plan is unique in that it targets its percentage of income payment guidelines not to an independently determined level of “affordability.” Rather, the state defines “affordability” by reference to what a median income household pays for his or her home energy service. One might expect that the median income household pays less as a percentage of income than whatever amount might actually be considered “affordable.” The median income household, in other words, could likely “afford” to pay more for home energy than it actually does pay. Nonetheless, the use of the median income burden in Nevada creates an objective, empirically-ascertainable, affordability threshold.

IV. Low-Income Affordability Programs

The two major affordability programs available to low-income households in Nevada are the LIHEAP Program and the Nevada Fund for Energy Assistance and Conservation Energy Assistance Program.

- LIHEAP Program – In 2005, the Nevada LIHEAP program received about $3.9 million in funding from the Federal government.[65] Since about 93% of low-income households use natural gas or electricity for their home heating fuel, we will estimate that about $3.6 million was made available to gas and electric customers for LIHEAP benefits.

- Nevada Fund for Energy Assistance and Conservation Energy Assistance Program (NFEAC-EAP) – In 2005, the Nevada Fund for Energy Assistance and Conservation Energy Assistance Program furnished about $12.6 million in electric and gas benefits to eligible households.[66]

In total, about $16 million was available to help pay the electric and gas bills for low-income households. Using the ACS data, we estimated the following statistics regarding the aggregate electric and gas bills for low-income households in Nevada.

[65] Source: LIHEAP Clearinghouse
[66] Source: LIHEAP Clearinghouse

- Aggregate Electric and Gas Bill – The total electric and gas bill paid directly by low-income households is estimated to be about $236 million. The available funding of $16 million in benefits would cover about 6% of the total bill for low-income households.

- 5% Need Standard – Some analysts suggest that 5% of income is an affordable amount for low-income households to pay for the energy needs. The aggregate value of electric and gas bills that exceeds 5% of income is estimated to be about $148 million. The available funding of $16 million in benefits could cover about 11% of the unaffordable amount for low-income households. [Note: If benefits from either of these two programs are allocated to households with an energy burden less than 5% of income, the program would not cover 11% of the estimated need.]

- 15% Need Standard – Some analysts suggest that 15% of income is an affordable amount for low-income households to pay for the energy needs. The aggregate value of electric and gas bills that exceeds 15% of income is estimated to be about $69 million. The available funding of $16 million in benefits could cover about 23% of the unaffordable amount for low-income households if it were targeted to only those households with energy bills greater than 15% of income.

- 25% Need Standard – Many low-income households pay more than 25% of income for energy service. Among the ratepayer-funded low-income programs that have used a percent-of-income guideline in their benefit determination process, none have been as high as 25% of income for combined use of electric and gas. The aggregate value of electric and gas bills that exceeds 25% of income is estimated to be about $47 million. The available funding of $16 million in benefits could cover about 34% of the unaffordable amount for low-income households if it were targeted to households with energy bills greater than 25% of income.

These statistics demonstrate that the Nevada programs cover a modest portion of the total low-income need.

The Nevada Energy Assistance Program was targeted for analysis by this study. Some important features of the program include:

- Commission Oversight – The Nevada Commission has limited authority over the EAP program. The legislation sets the funding level and distribution. The LIHEAP Office administers the program.

- Program Operations – The State LIHEAP Office (with the Division of Welfare and Supportive Services) is responsible for the design and implementation of the program.

- Program Funding/Participation – Program funding for 2005 was about $13 million and served more than 17,500 customers.

- Targeting – The program is open to all customers. The LIHEAP office conducts outreach to TANF, Food Stamp, and Medicaid populations.

- Benefit Type – The program gives a fixed annual benefit to participating household.

The following table furnishes detailed information on the program

Program State	Nevada.
Program Name	Energy Assistance Program (EAP).
Utility Company (If Applicable)	n/a

Program Goals	To expend UEC monies on as many Nevada households needing energy and weatherization assistance as possible within the amount of UEC funds collected, and administer those funds in an effective and efficient manner. Increase the numbers of households receiving utility assistance. Continue to improve client service delivery. Continue to assess the staffing situation in the northern and southern Nevada offices in an effort to provide for optimum program operations. Continue to work with the utilities to develop ways for households to budget their benefits over a 12-month period.
Funding Source (SBC or Rates)	SBC – Universal Energy Charge (UEC), which funds the Nevada Fund for Energy and Conservation, which funds the EAP. The EAP is also funded by Nevada's federal LIHEAP grant.
Annual Program Funds – Allocated (2005)	$8,861,243 (PY2005).
Annual Program Funds – Expended (2005)	$12,553,566 (PY2005; includes carryover funding from previous program years; amount includes expenditures for Arrearage Program).
# of Households Served (2005)	17,577 (PY2005).
Participation Limit (Maximum # of Enrollees)	Until all funds are expended.
Eligibility – % of Poverty Level	150% of the federal poverty guidelines.
Eligibility – Other Criteria	EAP recipients must have a universal energy charge on their utility bill for the month in which they apply for benefits. The billed UEC must be for the resident address at which the person or household resides**.**
Targeted Groups	TANF, Food Stamp, and Medicaid populations.
Benefit Calculation Type (% of Income, Benefit Matrix, etc.)	Formula based on targeted energy burden with minimum credit of $180.
Benefit Calculation (Document Formula)	The annual energy usage for the "address" at which the household resides at time of application is used in determining the Fixed Annual Credit (FAC) benefit. 1) Identify an eligible household's gross annual income and apply 3.60% (the statewide median household energy burden for natural gas and electricity for PY2007) to determine the amount the household is expected to pay for their energy burden. 2) Identify eligible household's annual energy usage in dollars (to include all energy sources). 3) Compare the 3.60% figure to the eligible household's annual energy burden (usage in dollars) as follows: • If the household energy burden is greater than 3.60% of the household's annual income, the difference is the FAC for that household. The FAC is the benefit amount the household receives not to exceed UEC annual usage. • If the eligible household energy burden is less than 3.60% of the household's annual income, the household may receive a payment of $180. If the household's annual usage is less than $180, UEC funds will be used to pay up to the usage amount; the remainder will be paid from the federal LIHEAP funds. If the household resides in a newly constructed residence where 12 months of historical energy usage does not exist or if they reside in a new residence where the 12-month historical energy usage is not representative of the potential usage of the applicant household, EAP staff may use the median energy usage for the residence type (single family or multi-family) from the applicable utility. **<u>Master-Metered Residences</u>** • If all utilities are in the landlord's name and the household does not receive a separate bill that includes consumption and dollar usage, the household may receive $180 in energy assistance *paid with non-UEC monies*. • If all utilities are in the landlord's name, whether included in the rent or not, but the household receives a separate bill that includes consumption and dollar usage, the household is eligible for a fixed annual credit or $180, whichever is greater, payable to the household. • If one of the utilities is in the landlord's name and one is in the household's name, the household will receive a fixed annual credit based on the utility in the household's name payable to the household's utility, unless the household receives a separate bill from the landlord that includes energy consumption and dollar usage. If the household receives both, the household may receive a fixed annual credit based on both utilities payable to the household's utility not to exceed the annual usage, and the remainder payable to the household.

	[NOTE: Households who reside in housing subsidized by a governmental entity and where all utilities are included in the rent are not eligible for EAP.
Benefit Amount (Mean Subsidy)	$715 (PY2005).
Benefit Limit	None.
% of Program Dollars Spent on Administrative Costs	3%. For PY2005, the limit was 3% of budgeted allocation; for PY2007, the limit is 5%. [NOTE: Per Nevada Revised Statute NRS 702.250, no more than 3% of UEC funds may be retained by the PUCN for administrative expenses.]
Benefit Distribution (Fixed Payment, Fixed Payment with a Limit, Fixed Credit, Fixed Credit with Budget Billing, etc.)	Fixed annual credit (FAC) payable in the name of the recipient directly to the recipient's utility. Households are encouraged, but not required, to spread their benefit over a 12-month period. The EAP recipient may direct the benefit to their UEC heating provider or UEC cooling provider, or split their benefit equally between the two.
Arrearage Forgiveness Plan – Y/N	Yes. Arrearage forgiveness is available only to customers receiving service from Nevada Power, Sierra Pacific Power, Southwest Gas, or the cities of Boulder City, Caliente, Fallon, or Pioche.
Amount Eligible for Forgiveness (Dollars, %, or Unlimited)	Assistance is provided in an amount eliminating the debt owed to a household's heating and/or cooling vendor. The benefit may be directed to the household's electric vendor, gas vendor, or split between the two.
Forgiveness Requirement (Payments, On-Time Payments)	The UEC-eligible household may receive an arrearage benefit only once for as long as they participate in EAP. The UEC-eligible household must have paid an amount equal to at least 3.33% of their current income toward the arrearage during the 12 months in which the arrearage occurred. Once eligible for arrearage payment assistance, the household must budget its FAC benefit over 12 months to ensure an arrearage does not occur again. [NOTE: The only exceptions are households with chronic, long-term medical conditions that create a financial hardship and/or increase energy consumption.]
Forgiveness Period (One-Time, 12 months, 24 months, etc.)	One-time.
Program Manager (PUC, State, Utility)	Nevada Department of Health and Human Services, Division of Welfare and Supportive Services (DWSS).
Data Manager (PUC, State, Utility, Other)	DWSS. DWSS has a computer-generated exchange of information with the major utilities to ascertain the annual energy usage of applicant households to determine the fixed annual credit (FAC) benefit. DWSS electronically transfers to the Housing Division files containing important household data for the purpose of potentially helping those households with energy conservation.
Enrollment Responsibility (Utility, CAP, etc.)	DWSS-contracted intake sites, including county social services offices, senior citizen centers, or community-based organizations.
Application Method (Mail, In-Person, Phone)	EAP applications are completed at intake sites who immediately send them to one of two program offices statewide for processing. Applications may also be mailed to one of the two program offices.
Joint Application	None.
Recertification Required – Y/N	Yes.
Recertification Frequency	Annual, approximately 11 months after a household received its last benefit.
Recertification Method (Agency, Automatic Enrollment, Self-Certification)	EAP recipients must reapply annually.
Recertification Procedures	30 to 45 days prior to the end of their current certification period, EAP applications for the upcoming program year are mailed to current PY EAP recipients. EAP recipients must reapply for benefits.
Removal Reasons	Service is disconnected or they have been found guilty of committing an Intentional Program Violation (IPV). Household moves out of state or to an in-state area serviced by a non-UEC-participating vendor.

	Person or household is determined by a utility or law enforcement agency of obtaining energy fraudulently or through unlawful activities are ineligible for a set period of time. Person or household is determined by a utility or law enforcement agency of utilizing energy for the purpose of conducting unlawful activities are ineligible for a set period of time.
Other Communications	All Notice of Decision letters generated by the NOMADS computer system – which serves the Temporary Assistance for Needy Families (TANF), Food Stamp and Medicaid populations – will contain language informing the noticed recipient or household they may be eligible to receive assistance with their heating and/or cooling bills, and where to call to get an application. Applicants or recipients known to the NOMADS computer system may be electronically screened to determine if they are income eligible and known to the EAP program. If an applicant/recipient is income-eligible and has not applied for energy assistance in the current or previous program year, an EAP application and cover letter may be generated requesting them to consider completion of the application.
Budget Counseling	The Division of Welfare will continue to educate the household on how to budget the FAC benefit throughout the program year.
Evaluation Frequency	Annual, per Nevada Revised Statute NRS 702.280.
Coordination with LIHEAP	DWSS carefully coordinated FEAC funding for EAP with federal LIHEAP payment assistance funding throughout PY2005.
Coordination with WAP	None.
Coordination with Energy Efficiency Programs	All EAP participants are referred by the DWSS, via the agency's computer system, to the Housing Division. 25% of the UEC amount collected is transferred to the Housing Division to assist with their Weatherization Program. A list of eligible households with a FAC of $2,000 or greater is also provided to the Housing Division on a daily basis directly from the EAP.
Coordination with Other Energy Affordability Programs	None.

The EAP program includes two crisis components, the Crisis Intervention Program and Fast-Track Program. Each is summarized below.

Crisis Intervention Program

The Crisis Intervention Program assists households experiencing a special circumstance or crisis and whose gross annual income exceeds 150% of poverty except for allowably qualifying expenses that reduce the annual income to 150% of poverty. Qualifying expenses must be supported by valid and verifiable documentation and must create a financial hardship of no less than 3 months, and may include:

- Unreimbursed medical expenses for medical emergencies or long-term, chronic medical conditions
- Unreimbursed compulsory and necessary home repairs
- Automobile repairs only if transportation is needed for ongoing medical care, the repairs are critical to the operation of the vehicle, and it is the only registered vehicle in the household. Regular maintenance is excluded, including tire purchases.

Fast-Track Program

The Fast-Track Program provides expedited application processing to eligible households who meet the following criteria:

1) The household must:
   - Be in danger of having their heating or electric service disconnected within 48 hours, or had service terminated, or
   - Be in need of heating fuel and have less than 10% in their tank, or
   - Be in need of a deposit, and the household must have tried to alleviate their

energy-related crisis, including personally contacting the energy vendor to request a payment plan and been denied.

2) The household must have experienced a recent unexpected loss of income or emergency expense in the last 2 to 5 months of at least 15% of the household's total monthly gross income, which caused the inability to pay heating/cooling costs. The loss of income could not have been from a seasonal or temporary position, or for being terminated for misconduct. The emergency expense includes:

- Unreimbursed medical expenses for a medical emergency or long-term chronic medical conditions
- Unreimbursed compulsory and necessary home repairs
- Automobile repairs only if transportation is needed for ongoing medical care, the repairs are critical to the operation of the vehicle, and it is the only registered vehicle in the household. Regular maintenance is excluded, including tire purchases.

The household must provide proof they paid for the expense out-of-pocket and could not have been charged on a credit card or paid by a friend or relative.

3) Fast-Track assistance cannot be provided unless:

- The benefit or a combination of the benefit and a payment made by the household are sufficient to alleviate the crisis, and
- The household has paid at least $25 on their home energy bill(s) during the 60 days prior to the unexpected loss or emergency expense.

4) Each household can only receive Fast-Track assistance every other year unless there are extenuating circumstances (e.g., terminal illness, car accident, etc.).

V. Affordability Program Evaluation Findings

Nevada's Housing Division and Division of Welfare and Supportive Services contracted with H. Gil Peach & Associates to conduct an evaluation of the Energy Assistance Program (EAP). The evaluation covers state fiscal year (SFY) 2005. The evaluation examines how to make the program more effective and efficient.[67]

The key findings and recommendations from the evaluation are summarized below.

- Approximately 24,000 applications were received for the EAP in SFY 2005. This represents a 27 percent increase over the previous year.

- In the initial years of the program, there was significant carryover of available program resources. Full program expenditure should be reached in SFY 2006 or SFY 2007.

VI. Low-Income Energy Efficiency Programs

The two major sources of funding for energy efficiency programs available to low-income households in Nevada are the DOE Weatherization Assistance Program (WAP) and the Nevada Fund for Energy Affordability and Conservation Weatherization Assistance Program.

- DOE WAP Program – In 2005, Nevada received about $0.9 million in funding for the Weatherization Program. These funds were distributed to local agencies to deliver weatherization services to low-income households.[68]

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[67] State Fiscal Year 2005 Evaluation of the NRS 702, H. Gil Peach & Associates, May 2006.
[68] Source: LIHEAP Clearinghouse

- Nevada Fund for Energy Affordability and Conservation Weatherization Assistance Program – In 2005, the Nevada Fund for Energy Affordability and Conservation Weatherization Assistance Program was funded at a level of about $2.6 million.[69]

In total, about $3.5 million was available to help furnish energy efficiency services to low income households in Nevada.

It is a little more challenging to estimate the need for energy efficiency programs. In general, we would suggest that energy efficiency programs should be used in place of affordability programs when the energy efficiency programs result in cost-effective savings to the household. The literature on energy efficiency programs demonstrates that programs that target high users achieve the highest savings levels and are the most-effective. For electric baseload, programs that target households that use 8,000 kWh or more are most cost-effective. For electric heating, programs that target households that use 16,000 or more kWh are most cost-effective. For gas heating, programs that target households that use 1,200 or more therms are most cost-effective.

Our primary state-level data source, the ACS, does not ask respondents to report on the amount of electricity or natural gas that they use. However, we can develop a proxy for usage based on the respondent's estimate of the household's electric and gas bill. [Note: kWh price = 10.20 cents, therm price = 1.246].

Using the ACS data, we developed estimates of the number of households that would be eligible for energy efficiency programs using the cost-effectiveness targets. Table 10 shows that 59% of households could be targeted for high baseload bills, 30% could be targeted for high electric heat bills, and 10% could be target for high gas usage.

Table 10
Need for Energy Efficiency Programs for Low-Income Households (2005)

Group	Number of Households with Bills	Number of Households with High Bills	Percent of Households with High Bills
Electric Baseload Services[70]	77,340	45,664	59%
Electric Heating Services	65,507	19,395	30%
Gas Heating Services	64,666	6,645	10%

Source: 2005 ACS

In general, low income weatherization programs spend about $3,000 per unit including all costs for administration and service delivery. With the available funds, Nevada could serve about 1,200 low-income households, or about 5% of the high usage homes needing weatherization assistance or 2% of the homes need electric baseload services.

Some important features of the Nevada Fund for Energy Assistance and Conservation program include:

- Program Administration – The state WAP Office (the Housing Division of the Nevada Department of Business and Industry) administers this program.

- Service Delivery – Five local subgrantees deliver services to clients.

[69] Source: LIHEAP Clearinghouse
[70] For households that report electric and natural gas expenditures as one bill, we allocated half of the cost to electricity and half of the cost to natural gas.

- WAP Office Collaboration – The program is directly coordinated with the WAP program.
- Demographic/Program Targeting – The LIURP program targets clients with health and safety programs, vulnerable households, and clients with a high payment subsidy.
- Usage Targeting – The program implicitly targets high usage customers when it targets those with a high payment subsidy.
- Funding/Service Delivery – The program was funded at the level of about $3.5 million. It delivered weatherization services to 847 clients in 2005.

The following table furnishes detailed information on the program.

Program State	Nevada
Program Name	Weatherization Assistance Program – Fund for Energy Assistance and Conservation (WAP-FEAC)
Utility Company (If Applicable)	n/a
Program Goals	To expend UEC monies on as many Nevada households needing energy and weatherization assistance as possible within the amount of UEC funds collected, and administer those funds in an effective and efficient manner. Increase the number of homes weatherized, contingent upon the availability of funds. Provide more effective and efficient methods of service delivery. Continue the ongoing relationship with utility Demand-Side Management (DSM) programs.
Funding Source (SBC or Rates)	SBC – Universal Energy Charge, which funds the Nevada Fund for Energy and Conservation, which funds the WAP-FEAC.
Annual Program Funds – Allocated (2005)	$2,953,748 (PY2005).
Annual Program Funds – Expended (2005)	$2,621,272 (PY2005). [NOTE: This figure was calculated by adding the program operations expenditures to ½ of the health and safety expenditures.]
# of Households Served (2005)	847 (using WAP-FEAC funding, PY2005). [NOTE: A total of 994 homes were weatherized in PY2005. The additional homes were serviced using non-WAP-FEAC dollars.]
Participation Limit	None.
Eligibility – % of Poverty Level	150% of the federal poverty guidelines.
Eligibility – Home Type	Owner- or renter-occupied single- and multi-family dwellings and mobile homes. Master metered complexes or other properties where the utilities are in the landlord's name, as long as long as the dwelling unit is in an area served by a UEC participating utility.
Eligibility – Energy Usage	None.
Eligibility – Participation in Energy Assistance	None.
Eligibility – Other Criteria	They must have a universal energy charge for the month in which they apply for benefits for the resident address at which the person or household resides.
Targeted Groups	Priority is given by subgrantees to households: 1) With a weatherization-related health and safety hazard. 2) With a member who is either elderly, disabled, or under the age of six. 3) Referred by DWWS as having an annual FAC of $2,000 or greater.

Measure Determination	The Housing Division has developed a list of weatherization measures that a subgrantee may provide to eligible households. The weatherization measures priority list is based on the following factors: 1) Climate of the region 2) Dwelling type 3) Type of heating or cooling system 4) Type of energy source used by the heating or cooling system and the cost of the energy source. Up to 20% of the amount of funds awarded to the subgrantees may be used to eliminate or mitigate weatherization-related health and safety issues of program participants.
Mean Costs per Home (2005)	$2,468 (PY2005).
Targeted Average Cost (2007)	$2,700 (PY2007).
Cost Limit	$4,000, WAP-FEAC funds (PY2007). The cap is $7,000 when federal funds are included.
Landlord Contribution	The subgrantees, to the extent possible, will assess the landlord's financial responsibility in participating with the cost of weatherization assistance. In multi-family units, the replacement costs of HVAC equipment, water heaters, windows, and minor home repairs are the landlord's responsibility.
% of Program Dollars Spent on Administrative Costs	4.73%. Administrative costs cannot be more than 6% of program funding. [NOTE: Per Nevada Revised Statute NRS 702.250, no more than 3% of UEC funds may be retained by the PUCN for administrative expenses.]
Efficiency Measures	Measures may include but are not limited to: ▸ Ceiling, floor, and duct insulation ▸ Duct leakage sealing (return and supply systems) ▸ Shell infiltration sealing (e.g., replace broken windows, weather-stripping, caulking, evaporative cooler covers) ▸ Insulate water heater and adjoining pipes ▸ Solar screens in southern Nevada only ▸ Heating and cooling system repairs/replacements ▸ Health and safety measures (carbon monoxide testing of appliances, indoor air quality standards, and installation of carbon monoxide detectors) ▸ Compact fluorescent lighting ▸ Mobile home roof insulation (southern Nevada only) ▸ Refrigerators. Additional measures may be implemented if determined to be cost effective or if they address occupant health and safety.
Customer Education – Y/N	Yes. Subgrantees or a qualified nonprofit agency may provide education on energy conservation measures to reduce a client's energy usage.
Education as Part of Service Delivery – Y/N	Yes, for most jobs.
Education Separate from Service Delivery – Y/N	Yes, in some cases, but not typically.
Follow-Up with Customers – Y/N	Yes.
Program Manager (PUC, State, Utility)	Nevada Department of Business and Industry, Housing Division (HD).
Data Manager (PUC, State, Utility, Other)	Nevada Department of Business and Industry, Housing Division. HD receives a data transfer from the EAP computer system containing the names and addresses of all approved EAP-eligible households to determine if a household participates in UEC. When requested, the Housing Division shall provide DWSS a list of eligible households that received weatherization services.
Enrollment Responsibility (Utility, CAP, etc.)	Community action agencies, local nonprofit agencies, and local governments.
Number of Provider Agencies and/or Contractors	There are five subgrantees (i.e., local service providers who are intake sites) statewide. (PY2007)

Type of Provider (For-Profit, CAA, etc.)	Community action agencies.
Application Method (Mail, In-Person, Telephone)	Mail (form is mailed to the household's local service provider), in-person, or from DWSS. Customers apply at the site of their local service provider (subgrantee), an entity under contract to the Housing Division. The Housing Division also accepts lists of UEC-eligible households meeting the income criteria from DWSS.
Joint Application	No.
Reasons for Service Denial	The dwelling unit . . . ▸ Five years immediately preceding the application, had been improved, in whole or in part, through a program of weatherization assistance, be it federal, state or local. ▸ Is vacant. ▸ Is on the market (i.e., for sale). ▸ Is in the process of being foreclosed, acquired, or sold; or having its title transferred for the failure of a person to pay under the terms of a mortgage, a deed of trust, a land instrument contract or under any other contract, lien or judgment.
Type of Follow-Up	Client questionnaires are mailed to serviced households; results and any corrective action is shared with the appropriate subgrantee.
Quality Control (Inspections?, etc.)	The Housing Division reviews job expenditures. On-site inspections are conducted at a minimum of 10% of dwelling units weatherized during the program year.
Evaluation Frequency	Annual, per Nevada Revised Statute NRS 702.280.
Coordination with LIHEAP	None.
Coordination with WAP	WAP-FEAC coordinates funding with federal Department of Energy funding.
Coordination with Energy Affordability Programs	The Housing Division will, as feasible, provide weatherization assistance to households determined eligible for a FAC payment of $2,000 or greater providing the household cooperates with the subgrantee. The Housing Division will contact these households within two weeks from referral from the Division of Welfare to determine if they are interested in receiving weatherization assistance. If interested, the applicants will be referred to the appropriate Subgrantee for assistance.
Coordination with Other Energy Efficiency Programs	Utility DSM funding has helped fund client education, including customer energy kits and brochures. A portion of the funding for crew training and manuals came from DSM funds.

VII. Energy Efficiency Program Evaluation Findings

Nevada's Housing Division and Division of Welfare and Supportive Services contracted with H. Gil Peach & Associates to conduct an evaluation of the Weatherization Assistance Program (WAP). The evaluation covers state fiscal year (SFY) 2005.[71]

The key findings from the evaluation are summarized below.

- 847 homes were weatherized with funding from the Fund for Energy Assistance & Conservation in SFY 2005.

- Energy savings are shown in the table below. Solid conclusions cannot be drawn due to the large attrition (only 10 percent of the sample was included in the analysis) and the small sample size.

[71] State Fiscal Year 2005 Evaluation of the NRS 702, H. Gil Peach & Associates, May 2006.

Table 11
Usage Impact Results

	# of Households	Usage		Gross Savings	
		Pre	**Post**	**Amount**	**Percent**
Nevada Power Customers – Electric Heat					
Apartments	43	5,216	5,012	205	3.9%
Mobile Homes	5	3,404	3,799	-395	-11.6%
Single Family	16	6,405	6,779	-375	-5.8%
Nevada Power Customers – Natural Gas Heat					
Apartments	2	9,902	8,960	943	9.5%
Mobile Homes	16	6,578	6,821	-243	-3.7%
Single Family	11	7,180	7,182	-3	0.0%
Southwest Gas Customers					
North	24	354	296	58	16.3%
South		200	182	18	9.2%