
XI. BEST PRACTICES

In past evaluations, the review of best practices has focused on the funding percentage for program administration (SFY 2003 evaluation), the possibility of developing, with the utilities, an equal payment arrangement integrated with budget billing (SFY 2004 evaluation), and strengthening the energy education component of the programs (SFY 2005 evaluation). In the current evaluation, the focus is on the “best practice” features of the Nevada UEC programs and why they are best practices.

The UEC programs are important for the following reasons:

- The program is greatly appreciated by the clients and, for a high percentage, is essential to their being able to simultaneously pay their utility bills, pay for prescriptions, clothe children for school, and put meals on the table for their families. Many households are trapped in the “heat or eat”, or “run the AC or pay for prescriptions” situation. As shown in this report, households and families are caught by changing times. In our time, viewed analytically and systematically, income is being reallocated to the very upper income groups in our world society and away from the bottom and middle income groups. There are a number of reasons for these changes, some of which have been discussed in earlier sections of this report, but it is fair to summarize the causes as being due to broad structural changes in the world economy that impact the United States, and impact Nevada. These are diffuse economic changes coming from outside; changes that have continued to grow in force and impact since the early 1970s.
- From time to time, we see questioning of whether or not the UEC programs are necessary, and the assertion that there are other sources of help that would meet needs without the UEC programs. In this report, we have looked at the relative shares of help coming from guarantors, from other programs, and from the UEC and LIHEA (together). The reality is that there is no way to meet the size and extent of current need except through the UEC and the Fund for Energy Assistance and Conservation programs.
- As also noted in this report, energy prices, for a variety of reasons are expected to increase over the next fifty years.
- On the Housing Division side, the health and safety changes carried out by the Housing Division using UEC and DOE funds produce a major positive impact to the life and health of families. No one else provides these services.
- On the Division of Welfare and Supportive Services energy payment assistance side, the program is similarly essential to the health and continued

economic viability of households. This is a real program and not a token program.

Certain features developed in the legislation for NRS 702 make the program unique and properly targeted. The following six features constitute best practices.

- (1) **Size of Assistance Amount.** The size of assistance provided to individual households is appropriately gauged for the size of economic problem of utility bills. Given the federal funding formula that discriminates against the Western and Southern states for LIHEAP funding, the erratic nature of federal funding, and the general decline in federal funding (in real dollars) since the inception of the federal program, only a significant state commitment of the size of the UEC is capable of meeting needs at the household level. The UEC provides material assistance to qualifying households that meets the size of the utility payment problem encountered by households.
- (2) **Coordination with Federal Program.** The Energy Assistance Program has been structured to provide a melding of state UEC and federal LIHEA funds to provide equal treatment for Nevada households, while respecting the provisions of both programs. This provides fairness in administration and simplifies communication.
- (3) **Year-around Operation.** This is the best fit for Nevada's diverse climates and weather. The federal time table is structured towards programs that only serve during the winter months, since the original federal program was targeted to the Northeastern states. Also, the dates for opening and closing the Winter-only version of the program vary year by year making for communications problems with clients.
- (4) **Fairness of Median State Energy Burden Criterion.** Setting the criterion of assistance at the median Nevada energy burden is on its face appropriate from the perspective of equality of burden. It is a criterion that is easy to communicate and seems inherently fair.
- (5) **Automatic Updating of the Median State Energy Burden.** Not all states have set annual adjustment procedures for their assistance programs. If a legislature has not structured an adjustment procedure when a state energy assistance program is legislated, their program goes increasingly out of calibration with utility bills over time. Nevada avoided this problem by requiring that the median household energy burden be used as the criterion for calculating the Fixed Annual Credit (FAC), and further requiring that the calculation be carried out each year. Though the calculated amount is anchored in the values of the previous year (and so, does not take a sudden spike in price during a particular program year into account), it never drifts out of calibration.

(6) **Appropriateness of Median State Energy Burden Method.** The Nevada energy assistance program adjusts assistance amount to both energy bills and household income. Essentially, Nevada has developed an approach that includes the advantages of a percentage of income approach in that it is referenced to actual household (gross) income. The percentage of income payment program approach is more effective and more efficient than the other program design alternatives, such as the uniform or blocked rate discount designs, the percentage of bill payment approach, and other approaches.¹⁶⁷ At the same time, calculation of energy burden also takes total energy bill into account.

One way to understand why the Nevada approach is a best practice is to compare it to a utility discount approach. In general, utility discount approaches (using a flat utility discount, such as 10% or 20%) tend to distribute assistance dollars *less to households where it is most needed and more to households where it is less needed*. Further, the size of the assistance amount to individual households is inadequate to meet need for the lower income households.

To get a sense of this difference, Table 58 provides the current rate equations for the three major utilities (Nevada Power, Sierra Pacific Power, and Southwest Gas). A simple discount would apply a fixed discount percentage to the total annual utility bill, for example 10% or 20%.

The result can be compared with the Fixed Annual Credit expressed as a percentage of the annual energy bill (Table 44). The flat discount percentage selected (e.g., 10%, 20%) contrasts with the typical percentages of equivalent annual energy bill discounts provided by application of the Fixed Annual Credit (FAC) using the Nevada median household energy burden as the adjustment factor (that is, taking percentage of income and percentage of bill into account).

¹⁶⁷ The percentage of income approach, of which the Nevada Energy Assistance Program is uniquely developed example, can be shown mathematically to be the most efficient of the program designs.

Calculation Table for Annual Utility Bill		
Electric Bills		
Nevada Power Company	$((6.00 + (\text{kWh} \times .10439)) \times 1.05) + (\text{kWh} \times .00039)$	
Sierra Pacific Power Company	$((6.00 + (\text{kWh} \times .12401)) \times 1.02) + (\text{kWh} \times .00039)$	
Natural Gas Bills		
Sierra Pacific Power Company	$((6.50 + (\text{therm} \times 1.25651)) \times 1.02) + (\text{therm} \times .0033)$	
SW Gas	May-Oct	For fifteen therms or under: $8.50 + (\text{therm} \times 1.23225)$
		For over fifteen therms: $8.50 + (15 \times 1.23225) + ((\text{therm}-15) \times 1.04126)$
	Nov-Apr	For forty-five therms or under: $8.50 + (\text{therm} \times 1.23225)$
		For over forty-five therms: $8.50 + (45 \times 1.23225) + ((\text{therm}-45) \times 1.04126)$
<p>Note: The total annual utility bill is sum of the electric bill and the natural gas bill. This table can be used to calculate total bill, given the kWh and therms for each month. It takes both the volumetric charge and the fixed charge portions of the bill into account.</p>		

Table 44: Bill Calculation Table.

Fixed Annual Credit as Percentage of Annual Energy Bill					
49%	71%	51%	65%	62%	43%
62%	41%	64%	59%	37%	76%
46%	26%	37%	49%	96%	28%
56%	81%	44%	75%	78%	52%
<p>Note: Values shown in this table are selected as typical values from clients served by a combination of Nevada Power Company and SW Gas.</p>					

Table 45: Percentage of Annual Energy Bill.

Nevada’s Fixed Annual Credit approach adjusts to the income and bill situation of each household to produce an individual percentage of bills covered by assistance that is unique to the household (as in Table 45). A utility bill discount using a flat discount rate would apply across all eligible households. If it were set high enough to meet the needs of households most in need, it would be set too high for other

households – resulting in an inefficient use of funds by applying assistance where it was not needed. If it were set to the needs of households in less need or of average need, it would not meet the need of households in most need. Nevada’s approach automatically takes these factors into account and provides the most efficient use of funds.¹⁶⁸

The following three tables (Table 46, Table 47 & Table 48) further illustrate how the program works, using actual client cases.

Because they do constitute best practices, the six features of the Nevada UEC listed above in this section of the study should be retained. Other states might also look to these features as possible examples to copy.

The following three tables illustrate how the program works, using actual client cases.

¹⁶⁸ The way to approximate the Fixed Annual Credit result using a bill discount approach is to create many bill discount percentages instead of just one. For example, with twenty or more “bins” according to poverty level, each with a different discount, the efficiency of the Fixed Annual Credit method can be approached, but the result is still approximate and relatively inefficient.

CLIENTS WITH SIERRA PACIFIC POWER COMPANY ELECTRIC AND NATURAL GAS SERVICE

Client ID	Total Assistance Paid	Electricity (kWh)	Gas (Therms)	Annual Electric Bill	Annual Gas Bill	Annual Household Income	Electric Bill Assistance	Gas Bill Assistance	Post Program Bill	Pre-Program Household Energy Burden	Post Program Burden	Assistance (Percentage of Total Energy Bill)
4722000	1363.23	4780	689	474.39	973.95	2556	888.84	474.39	85.11	56.66%	3.33%	94.12%
4160000	180	1704	252	156.11	216.26	7625.04	59	59	253.91	4.88%	3.33%	48.34%
1587000	294	2800	346	259.48	340.66	9192	147	147	306.09	6.53%	3.33%	48.99%
6772100	975	8450	396	796.93	484.28	9192	484.28	490.72	306.09	13.94%	3.33%	76.10%
9898000	1780	7758	1066	791.13	1325.23	10104	988.87	791.13	336.46	20.95%	3.33%	84.11%
8759000	1115.88	4896	633	487.4	955.75	9828	628.48	487.4	327.27	14.68%	3.33%	77.32%
75000	279.65	2833	273	277.84	289.52	8640	139.82	139.83	287.71	6.57%	3.33%	49.29%
8543100	1051	9668	704	879.99	598.75	12833.12	525.5	525.5	427.34	11.52%	3.33%	71.07%
8621000	351.36	4554	215	457.36	211.68	9540	175.68	175.68	317.68	7.01%	3.33%	52.52%
4753100	1299	10534	656	985.16	903.73	17700.4	313.84	985.16	589.42	10.67%	3.33%	68.77%
3042100	1114.78	3095	802	312.43	1153.55	10546.6	802.35	312.43	351.2	13.90%	3.33%	76.04%
2961000	908.86	6260	310	631.18	526.63	7476	454.43	454.43	248.95	15.49%	3.33%	78.50%
11820100	881	6676	594	628.24	533.67	8416.24	440.5	440.5	280.26	13.81%	3.33%	75.82%
11682100	448.59	3807	505	388.12	760.12	21010.56	224.29	224.3	699.65	5.47%	3.33%	39.07%
7018000	1127	7231	533	748.64	767.46	11676	563.5	563.5	388.81	12.98%	3.33%	74.34%
2083000	185	2680	397	263.41	390.88	14076	92.5	92.5	468.73	4.65%	3.33%	28.27%
5844100	652.86	5579	320	617.85	544.1	15288	326.43	326.43	509.09	7.60%	3.33%	56.19%
10803000	1298.99	6842	1024	671.04	1227.35	18000	649.49	649.5	599.4	10.55%	3.33%	68.43%
11137000	2061	11487	1098	1261.16	1081.07	8452.24	1030.5	1030.5	281.46	27.71%	3.33%	87.99%
5073000	708.66	7034	876	759.74	862.49	27434.42	354.33	354.33	913.57	5.91%	3.33%	43.68%
2864100	2175.19	8788	1397	962.14	1715.75	15096	1715.75	459.44	502.7	17.74%	3.33%	81.23%
9936000	1045	6855	953	702.49	856.44	15408	522.5	522.5	513.09	10.12%	3.33%	67.03%
3312100	962	6414	517	664.55	761.12	13908	481	481	463.14	10.25%	3.33%	67.48%
11109000	653	3865	700	367.12	913.3	18816.97	326.5	326.5	626.61	6.80%	3.33%	51.00%
11506000	1212.47	7323	545	745.52	859.76	11796	606.23	606.24	392.81	13.61%	3.33%	75.53%
10671100	844	5579	357	617.85	468.75	7260	422	422	241.76	14.97%	3.33%	77.67%
4030100	2259	11216	1171	1126.18	1433.44	8996	1132.82	1126.18	299.57	28.45%	3.33%	88.26%
4510000	849.33	2699	653	267.34	837.61	7676.16	837.61	11.72	255.62	14.39%	3.33%	76.87%
8914000	553	3075	349	320.51	486.98	7624.8	486.98	66.02	253.91	10.59%	3.33%	68.48%
3647000	1412	7023	650	759.95	896.48	7320	706	706	243.76	22.63%	3.33%	85.24%

Table 46: Sierra Pacific Power Electric & Natural Gas Service.

CLIENTS USING NEVADA POWER ELECTRIC SERVICE AND SOUTHWEST GAS

Client ID	Total Assistance Paid	Electricity (kWh)	Gas (Therms)	Annual Electric Bill	Annual Gas Bill	Annual Household Income	Electric Bill Assistance	Gas Bill Assistance	Post Program Bill	Pre-Program Household Energy Burden	Post Program Burden	Assistance (Percentage of Total Energy Bill)
7234000	2283.18	17197	766	1598.92	840.10	4,680.00	840.1	1443.08	155.84	52.12%	3.33%	93.61%
3730000	331.1	4053	86	383.96	202.64	7,672.80	165.55	165.55	255.5	7.65%	3.33%	56.44%
3508000	1012.68	6441	519	610.22	678.58	8,292.00	506.34	506.34	276.12	15.54%	3.33%	78.58%
4068000	706	6950	366	616.91	405.69	9,495.60	353	353	316.2	10.77%	3.33%	69.04%
10846000	243	3795	280	353.81	294.99	12,168.00	121.5	121.5	405.19	5.33%	3.33%	37.45%
10863100	537	10114	395	941.64	379.93	23,535.58	268.5	268.5	783.73	5.62%	3.33%	40.63%
11804100	343	4260	224	395.61	333.94	11,587.45	171.5	171.5	385.86	6.30%	3.33%	47.02%
6886000	868.16	10103	201	946.54	329.21	12,240.00	329.21	538.95	407.59	10.42%	3.33%	68.05%
413000	1566	19598	568	1816.15	587.08	25,128.95	587.08	978.92	836.79	9.56%	3.33%	65.16%
6352100	1321.37	14767	339	1359.64	399.29	13,140.00	399.29	922.08	437.56	13.39%	3.33%	75.12%
6630000	253	2633	196	242.53	290.28	8,364.00	10.47	242.53	278.52	6.37%	3.33%	47.48%
493000	1149	13551	588	1263.26	579.21	20,819.00	574.5	574.5	693.27	8.85%	3.33%	62.36%
4451000	779	7311	325	677.51	351.39	7,476.00	351.39	427.61	248.95	13.76%	3.33%	75.71%
6530000	1378.09	11992	386	1111.3	539.05	8,176.00	539.05	839.04	272.26	20.19%	3.33%	83.50%
258000	667	6441	700	596.89	708.74	19,149.60	333.5	333.5	637.68	6.82%	3.33%	51.09%
6791000	1196	8883	537	827.67	608.15	7,188.00	598	598	239.36	19.98%	3.33%	83.30%
995000	837	9037	267	843.24	263.92	8,096.40	263.92	393.08	269.61	13.67%	3.33%	75.60%
1821100	519.78	6136	332	580.9	478.34	16,200.00	259.89	259.89	539.46	6.54%	3.33%	49.07%
7946000	309.12	5307	447	493.15	518.55	21,098.48	154.56	154.56	702.58	4.80%	3.33%	30.55%
8022100	1726.56	13968	922	1243.6	902.94	12,612.00	863.28	863.28	419.98	17.02%	3.33%	80.43%
9973000	216	7979	374	743.15	457.01	29,536.00	108	108	983.55	4.06%	3.33%	18.00%
160100	2041	18085	1220	1675.94	1,194.58	24,881.02	1020.5	1020.5	828.54	11.54%	3.33%	71.10%
6502000	445	6084	433	566.55	442.23	16,904.16	445	100.56	562.91	5.97%	3.33%	44.11%
7862100	1549.93	9307	846	880.27	1,010.52	10,236.00	774.96	774.97	340.86	18.47%	3.33%	81.97%
2471000	611	8450	312	791.47	291.19	14,135.38	291.19	319.81	470.71	7.66%	3.33%	56.44%
9983000	571.09	3754	349	361.94	500.46	8,748.00	285.54	285.55	291.31	9.86%	3.33%	66.22%
3034000	1801	14686	846	1367.89	855.42	12,673.20	855.42	945.58	422.02	17.54%	3.33%	81.01%
8724100	303	6883	251	648.3	299.64	19,341.00	151.5	151.5	644.06	4.90%	3.33%	31.96%
1071000	1286	12176	565	1133.96	566.08	12,432.00	152.04	1133.96	413.99	13.67%	3.33%	75.65%
2004000	2009	14825	703	1373.83	716.39	2,430.00	716.39	1292.61	80.92	86.02%	3.33%	96.11%

Table 47: Nevada Power Electric Service & Southwest Gas.

NEVADA POWER - ALL ELECTRIC HOMES

Client ID	Total Assistance Paid	Electricity (kWh)	Annual Electric Bill	Annual Household Income	Electric Bill Assistance	Post Program Bill	Pre-Program Household Energy Burden	Post Program Burden	Assistance (Percentage of Total Energy Bill)
12643000	551	8684	804.75	7,584.00	551.00	252.55	10.61%	3.33%	68.47%
12811100	468	11587	1,068.19	18,006.04	468.00	599.60	5.93%	3.33%	43.81%
13911000	518	8450	791.47	8,208.00	518.00	273.33	9.64%	3.33%	65.45%
14031000	938	13737	1,275.30	10,112.38	938.00	336.74	12.61%	3.33%	73.55%
14219000	687.57	10106	966.24	8,368.56	687.57	278.67	11.55%	3.33%	71.16%
14224000	1339	16856	1,570.98	6,948.00	1,339.00	231.37	22.61%	3.33%	85.23%
14415000	675	10958	1,007.20	9,960.00	675.00	331.67	10.11%	3.33%	67.02%
14609000	1349	27607	2,577.00	36,885.50	1,349.00	1,228.29	6.99%	3.33%	52.35%
16136000	573.4	12346	1,151.94	17,373.72	573.40	578.54	6.63%	3.33%	49.78%
17307000	704	12147	1,117.04	12,408.00	704.00	413.19	9.00%	3.33%	63.02%
17522100	1185.86	16050	1,527.12	10,248.00	1,185.86	341.26	14.90%	3.33%	77.65%
18814000	455	8952	748.72	8,796.00	455.00	292.91	8.51%	3.33%	60.77%
19154100	344.16	5019	470.78	3,802.50	344.16	126.62	12.38%	3.33%	73.10%
19332000	228	5202	482.07	7,620.00	228.00	253.75	6.33%	3.33%	47.30%
19471000	1072	13614	1,272.53	6,000.00	1,072.00	199.80	21.21%	3.33%	84.24%
20010100	645	8963	831.59	5,592.00	645.00	186.21	14.87%	3.33%	77.56%
20934000	803.61	9367	857.16	1,608.00	803.61	53.55	53.31%	3.33%	93.75%
21022000	611	9239	860.13	7,476.00	611.00	248.95	11.51%	3.33%	71.04%
21270100	265.48	11859	1,119.82	25,656.00	265.48	854.34	4.36%	3.33%	23.71%
22168000	409	9050	828.17	12,576.00	409.00	418.78	6.59%	3.33%	49.39%
22521100	630.68	10091	958.35	9,840.00	630.68	327.67	9.74%	3.33%	65.81%
23930000	221	5080	467.48	7,384.80	221.00	245.91	6.33%	3.33%	47.27%
24834000	1767	24061	2,243.46	14,280.00	1,767.00	475.52	15.71%	3.33%	78.76%
25312100	537	11662	1,076.36	16,188.00	537.00	539.06	6.65%	3.33%	49.89%
25358000	231	6028	554.19	9,708.00	231.00	323.28	5.71%	3.33%	41.68%
25370100	550.51	8450	791.47	7,236.00	550.51	240.96	10.94%	3.33%	69.56%
26197000	1137.68	13865	1,284.87	4,420.00	1,137.68	147.19	29.07%	3.33%	88.54%
26277000	450.07	8451	773.35	9,708.00	450.07	323.28	7.97%	3.33%	58.20%
26985000	748	8640	793.98	1,344.00	748.00	44.76	59.08%	3.33%	94.21%
27949000	1121.89	15954	1,459.95	10,152.00	1,121.89	338.06	14.38%	3.33%	76.84%

Table 48: Nevada Power -- All Electric Homes.