

# STATE FISCAL YEAR 2004 EVALUATION OF THE NRS 702

## **ENERGY ASSISTANCE PROGRAM & WEATHERIZATION ASSISTANCE PROGRAM**

April 2005

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## CONTENTS

<b>I.</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>I-1</b>
<b>II.</b>	<b>THE SIZE OF THE NEED .....</b>	<b>II-1</b>
A.	HOW ENERGY BURDEN IS DEFINED .....	II-1
1.	<i>Energy Burden – A Federal Definition</i> .....	II-1
2.	<i>Nevada Energy Burden</i> .....	II-4
3.	<i>Household View of Energy Burden</i> .....	II-4
B.	INCOME ALLOCATION .....	II-5
C.	VERY HELPFUL, THOUGH LESS THAN RELIABLE FEDERAL FUNDING.....	II-6
D.	ENERGY PRICES ARE TRENDING UPWARDS .....	II-6
E.	NUMBER OF ELIGIBLE HOUSEHOLDS .....	II-7
F.	ANOTHER APPROACH TO NEED - SELF SUFFICIENCY VS. PERCENT OF POVERTY.....	II-8
G.	COMPARISON OF ALTERNATIVE ELIGIBILITY LEVELS .....	II-10
H.	SUMMARY .....	II-12
<b>III.</b>	<b>THE LOGIC OF THE PROGRAM &amp; PROGRAM CHALLENGES.....</b>	<b>III-1</b>
A.	RATIONALE FOR THE FUND FOR ENERGY EFFICIENCY AND CONSERVATION .....	III-1
B.	PROGRAMS OF ENERGY ASSISTANCE: SIX CHARACTERISTICS.....	III-2
C.	INCREASING RESOURCE SCARCITY .....	III-3
D.	TRADITIONAL “COST OF SERVICE” PRICING.....	III-4
E.	CHALLENGES TO THE PROGRAM.....	III-5
1.	<i>Internal Challenges</i> .....	III-5
2.	<i>Internal &amp; External</i> .....	III-6
3.	<i>External Challenges</i> .....	III-7
F.	LOGIC MODEL .....	III-8
<b>IV.</b>	<b>PROGRAM STORIES.....</b>	<b>IV-1</b>
A.	<i>Energy Assistance Participants</i> .....	IV-2
1.	<i>Mr. and Mrs. S</i> .....	IV-2
2.	<i>Ms. C</i> .....	IV-3
3.	<i>Mr. S</i> .....	IV-3
B.	WEATHERIZATION ASSISTANCE PARTICIPANTS .....	IV-4
1.	<i>Mrs. E</i> .....	IV-4
2.	<i>Mr. L</i> .....	IV-5
3.	<i>Ms. H</i> .....	IV-6
C.	SUMMARY .....	IV-7
<b>V.</b>	<b>FISCAL ANALYSIS.....</b>	<b>V-1</b>
A.	THE CHARGE (UEC) AND THE FUND (FEAC) .....	V-1
B.	SFY 2004 AS THE SECOND PROGRAM YEAR .....	V-2
C.	COLLECTIONS (PUBLIC UTILITIES COMMISSION OF NEVADA) .....	V-2
D.	THE FUND FOR ENERGY ASSISTANCE & CONSERVATION) .....	V-3
E.	THE PROGRAMS (WELFARE DIVISION & HOUSING DIVISION).....	V-5
F.	DISCUSSION.....	V-10
G.	SUMMARY .....	V-10
H.	RECOMMENDATIONS .....	V-11
<b>VI.</b>	<b>THE WEATHERIZATION ASSISTANCE PROGRAM.....</b>	<b>VI-1</b>
A.	SUBGRANTEES AND SERVICE TERRITORIES .....	VI-1
1.	<i>HELP of Southern Nevada</i> .....	VI-2
2.	<i>Community Service Agency (CSA)</i> .....	VI-3
3.	<i>City of Henderson Neighborhood Services (NS)</i> .....	VI-3
4.	<i>Rural Nevada Development Corporation (RNDC)</i> .....	VI-4

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B.	INSTALLATION SUMMARY .....	VI-5
C.	CONTRACTOR TRAINING .....	VI-9
D.	UTILITY HELP .....	VI-9
E.	FORMAL AND INFORMAL COMPLIANCE .....	VI-10
1.	<i>Specific Provisions</i> .....	VI-10
2.	<i>Review of Client Files</i> .....	VI-12
3.	<i>Informal Compliance</i> .....	VI-13
F.	HOUSING AUTOMATION ANALYSIS .....	VI-13
1.	<i>Links between Welfare and Housing</i> .....	VI-13
2.	<i>Welfare Link Recommendation</i> .....	VI-14
3.	<i>The Building Weatherization Report (BWR)</i> .....	VI-14
4.	<i>Energy Savings Tracking Database</i> .....	VI-15
G.	EFFECTIVENESS AND EFFICIENCY.....	VI-15
1.	<i>Data Arrangements with the Utilities</i> .....	VI-16
2.	<i>Analysis Window, Baseline &amp; Post Year</i> .....	VI-16
3.	<i>Initial Results</i> .....	VI-17
H.	IMPROVEMENTS AND PLANS.....	VI-19
I.	STAFFING ANALYSIS .....	VI-20
J.	RECOMMENDATIONS .....	VI-21
<b>VII.</b>	<b>ENERGY ASSISTANCE PROGRAM.....</b>	<b>VII-1</b>
A.	FAST-TRACK COMPONENT .....	VII-3
B.	CRISIS-INTERVENTION COMPONENT .....	VII-3
C.	YEAR-AROUND SERVICE.....	VII-3
D.	FORMAL AND INFORMAL COMPLIANCE .....	VII-3
E.	INFORMAL COMPLIANCE .....	VII-5
F.	CALCULATION OF MEDIAN ENERGY BURDEN .....	VII-5
G.	WELFARE AUTOMATION ANALYSIS FOR SFY 2004 .....	VII-7
1.	<i>Necessary Computer System Support</i> .....	VII-7
2.	<i>Accomplishments to Date</i> .....	VII-7
3.	<i>Plans for 2005</i> .....	VII-8
H.	STAFFING ANALYSIS .....	VII-8
I.	PAYMENT BEHAVIOR .....	VII-11
J.	EFFECTIVENESS AND EFFICIENCY.....	VII-13
K.	IMPROVEMENTS AND PLANS.....	VII-15
1.	<i>Arrearage Component</i> .....	VII-15
2.	<i>Outreach (Marketing &amp; Communications)</i> .....	VII-15
<b>VIII.</b>	<b>BEST PRACTICES COMPARISON .....</b>	<b>VIII-1</b>
<b>IX.</b>	<b>APPENDIX 1. SFY 2004 RECOMMENDATIONS .....</b>	<b>IX-1</b>
A.	OVERALL RECOMMENDATIONS .....	IX-1
B.	HOUSING DIVISION RECOMMENDATIONS .....	IX-2
C.	WELFARE DIVISION RECOMMENDATIONS .....	IX-3
D.	UTILITY RECOMMENDATIONS .....	IX-4
<b>X.</b>	<b>APPENDIX 2. SFY 2003 SUMMARY OF RECOMMENDATIONS .....</b>	<b>X-1</b>
A.	STATUTORY RECOMMENDATIONS .....	X-1
B.	WELFARE DIVISION RECOMMENDATIONS .....	X-2
C.	HOUSING DIVISION RECOMMENDATIONS .....	X-2
D.	EVALUATION RECOMMENDATIONS .....	X-4

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## TABLE OF FIGURES

FIGURE 1: ENERGY BURDEN IN THE US (USDOE) .....	II-2
FIGURE 2: THE FULL RANGE OF ENERGY BURDENS .....	II-3
FIGURE 3: INCOME DONUT – INCOME ALLOCATION IN NEVADA .....	II-5
FIGURE 4: AVERAGE NATURAL GAS & ELECTRICITY PRICE INDEXES: WEST, URBAN .....	II-7
FIGURE 5: OVERALL LOGIC MODEL .....	III-8
FIGURE 6: EVALUATION WINDOW .....	V-2
FIGURE 7: MONTH BY MONTH INSTALLATIONS, SFY 2004 .....	VI-6
FIGURE 8: TWO CYCLES OF WEATHERIZATION (SFY 2003 & SFY 2004).....	VI-7
FIGURE 9: WEATHERIZATION ASSISTANCE PROGRAM INSTALLATIONS .....	VI-8
FIGURE 10: TIMING FOR QUANTITATIVE ANALYSIS OF UTILITY DATA .....	VI-16
FIGURE 11: ENERGY BURDEN CALCULATION .....	VII-6
FIGURE 12: STAFFING STRUCTURE .....	VII-9
FIGURE 13: REMINDER.....	VIII-2

## TABLE OF TABLES

TABLE 1: DECLINE IN LIHEA FUNDING SINCE THE MID-1980’S .....	II-6
TABLE 2: NUMBER OF INCOME-ELIGIBLE HOUSEHOLDS .....	II-8
TABLE 3: ALTERNATIVE ELIGIBILITY LEVELS .....	II-12
TABLE 4: TOP-LEVEL FISCAL PERSPECTIVE – UNIVERSAL ENERGY CHARGE .....	V-2
TABLE 5: TOP-LEVEL FISCAL PERSPECTIVE - NEW FUNDS (FEAC).....	V-3
TABLE 6: TOP-LEVEL FISCAL PERSPECTIVE - FUNDS CARRIED FORWARD (FEAC).....	V-4
TABLE 7: TOP-LEVEL FISCAL PERSPECTIVE - TOTAL FUNDS AVAILABLE.....	V-5
TABLE 8: FUND PLAN, BUDGET, EXPENDITURE .....	V-6
TABLE 9: RATE OF EXPENDITURE (WELFARE DIVISION) .....	V-6
TABLE 10: RATE OF EXPENDITURE (HOUSING DIVISION) .....	V-7
TABLE 11: FEAC – MAJOR LINE ITEMS.....	V-8
TABLE 12: ALLOCATION TO DIVISIONS.....	V-9
TABLE 13: HOMES WEATHERIZED (BY SUBGRANTEE).....	VI-5
TABLE 14: TYPES OF HOMES WEATHERIZED (BY SUBGRANTEE) .....	VI-5
TABLE 15: REPORTING SEQUENCE FOR ANALYSIS DEPENDENT ON UTILITY DATA .....	VI-16
TABLE 16: SFY 2003 WEATHERIZED HOMES (ATTRITION TABLE).....	VI-18
TABLE 17: PERCENT OF TOTAL BILL PAID (PRE AND POST WEATHERIZATION).....	VI-18
TABLE 18: INCOME GUIDELINES .....	VII-2
TABLE 19: UTILITY DATA ATTRITION TABLE .....	VII-12
TABLE 20: PERCENT OF TOTAL BILL PAID .....	VII-12
TABLE 21: ENERGY ASSISTANCE DOLLARS DISTRIBUTED, SIERRA PACIFIC POWER CO.....	VII-13
TABLE 22: ENERGY ASSISTANCE DOLLARS DISTRIBUTED, NEVADA POWER.....	VII-13
TABLE 23: SFY 2004 PROGRAM STATISTICS .....	VII-14
TABLE 24: RECOMMENDED FUNDING ALLOCATION .....	IX-1

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## I. EXECUTIVE SUMMARY

This document is the State Fiscal Year 2004 evaluation report for the Energy Assistance Program (NRS 702.260) and of the Weatherization Assistance Program (NRS 702.270).<sup>1</sup> The report describes the objectives of each program, analyzes the effectiveness and efficiency of each program in meeting its objectives, reports on the distribution of money from the Universal Energy Charge (UEC) and the Fund for Energy Assistance and Conservation (FEAC), reports on the coordination between the Housing Division and the Welfare Division in the conduct of the programs, and looks at planned program changes.

The previous (SFY 2003) evaluation focused on development of necessary infrastructure tools such as computer support, and the development of program capabilities, including staffing.<sup>2</sup> In this evaluation, we report on continuing development. However, at the end of SFY 2004, a strategy was in place to meet the last major challenge of the initial program implementation. Communication and recruitment for payment assistance participation were increasing with results to be shown in SFY 2005.

With the legislatively enacted programs basically in place at the end of SFY 2004 and the high-level implementation problems solved, this evaluation looks at possible adjustments for making the payment assistance and weatherization assistance programs more effective and efficient.

In SFY 2004, Welfare Division and Housing Division management and staff have faced considerable challenges and done an excellent job of working with them. Since the recommendations from the SFY 2003 evaluation became available in December 2004, there has not been time for program administrators and managers to consider them or to take steps towards implementation of those recommendations which will become adopted.<sup>3</sup> However, continuing problems or constraints that require further work have been identified by both program staff and advocates. In addition, many improvements have been introduced by staff independent of the evaluations.

This evaluation should be read alongside the SFY 2003 evaluation which reported on the program start-up. The recommendations from the earlier evaluation are included as an appendix, as are the recommendations for SFY 2004.

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<sup>1</sup> The evaluation is conducted pursuant to NRS 702.280(2-3).

<sup>2</sup> The SFY 2003 evaluation was the first full evaluation conducted pursuant to NRS 702.280(2-3). The SFY 2004 evaluation is the second.

<sup>3</sup> Follow-up on these recommendations will be provided in the SFY 2005 evaluation.

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Because of the success of the Nevada model, this report will have a wide readership outside of Nevada as well as by responsible leaders, staff, and advocates within the state. For this reason, it is appropriate to note that in developing the Housing and Welfare Division programs, Nevada has developed a “best practice” model for the Western states. Certain features of the Nevada approach should also be studied and copied by other states, particularly in the West but also in the rest of the country.

The program effort is proceeding well in SFY 2004, the second full program year. The major problems have been met and are either resolved, or are being resolved at the end of SFY 2004.

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## II. THE SIZE OF THE NEED

We begin with a discussion of the need for the Universal Energy Charge and the Fund for Energy Assistance and Conservation.

The purpose of this section is to develop useful, policy-relevant information regarding the *size of need* for the Nevada Fund for Energy Assistance and Conservation (FEAC). In this section of the report, we discuss:

- The definition of “energy burden.”
- Census data on the allocation of income in Nevada
- The trend in residential energy prices in the West.
- An estimate of the number of households eligible for UEC funding.
- A brief outline of alternative methods for determining eligibility is given followed by an analysis of how those alternatives would affect eligibility formulas.

### ***A. How Energy Burden is Defined***

“Energy Burden” is the key concept for understanding both the needs of Nevada households and Nevada’s programs to meet the needs.

#### *1. Energy Burden – A Federal Definition*

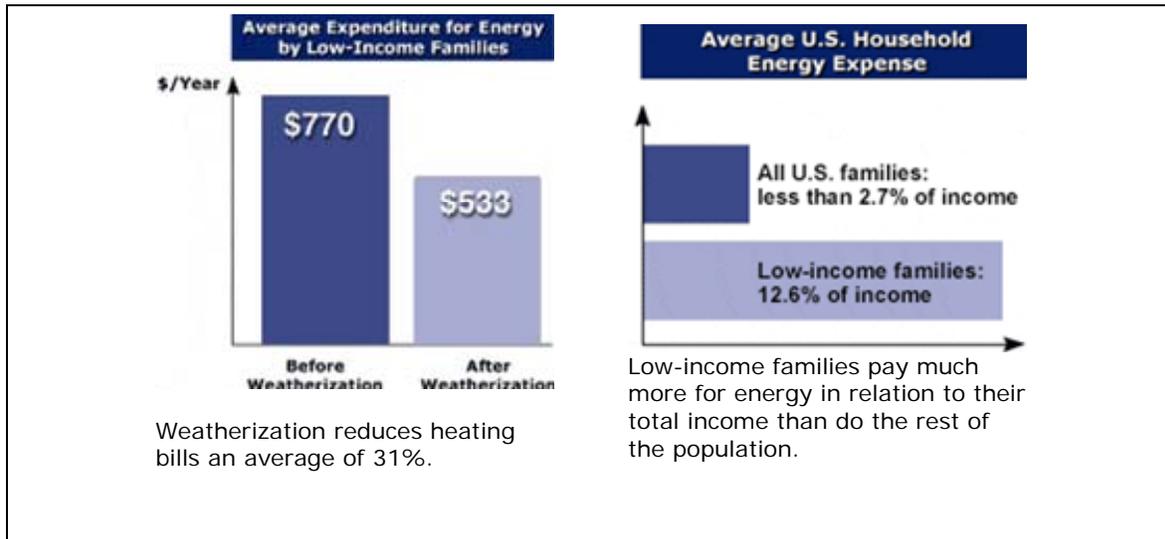
The definition of energy burden is given by the US DOE, Weatherization Assistance Program as follows:<sup>4</sup>

Low-income households spend much more of their income on energy bills than do families with median incomes (see chart). This percentage of income spent on energy is called the "energy burden," and it is substantial for some weatherization recipients. For example, some elderly recipients who lived on fixed incomes pay as much as 35% of their annual incomes for energy bills.

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<sup>4</sup> The quotation and Figure 1 are from the US DOE Weatherization Assistance Program at <http://www.energy.gov/weatherization/reducing.html>.

As defined by US DOE, energy burden is *the percentage of income spent on energy*.<sup>5</sup>



**Figure 1: Energy Burden in the US (USDOE).**

However, note that the federal definition is ambiguous in that the “percentage of income spent on energy” may or may not include the ancillary charges associated with energy and bundled into the energy bills received by households. In the above example, “energy cost” is used interchangeably with “energy bills.” Yet, while these two concepts are of the same kind of energy metric, they are different in quantity. This is something of a fine point, but the distinction must be addressed because it is relevant to households. Fixed costs, fees, and penalties can be a sizable “add-on” to the commodity cost component of energy bills. However, the federal definition of the concept of “energy burden,” though ambiguous, is adequate to introduce the basic concept. A household’s energy burden for a year is the percentage of household income that is needed to cover the cost of energy. As the federal example shows, the average US family has a mean group energy burden under 2.7% (Figure 1).

Since averages can be computed in different ways, a full presentation of energy burden is provided in Table 1.<sup>6</sup>

<sup>5</sup> The term “energy burden” means the expenditures of the household for home energy divided by the income of the household.” [Section 2603(2), Low Income Home Energy Assistance Act (46 U.S.C. 8622)]. According to the LIHEAP Clearinghouse, Congressional committee notes further provide the recommendation to use actual bills: “...In addition, the committee urges states to use actual energy bills in determining energy burdens and designing their benefit structures” (House Report 103-483 on H. R. 4250, Committee on Education and Labor).. The committee notes are cited in “State Strategies Based on Household Income, Energy Burden and Heating Costs,” Compiled by the LIHEAP Clearinghouse, February 2002 (<http://www.ncat.org/liheap/pubs/510targ.htm>).

<sup>6</sup> Source: Reprinted from Department of Health and Human Services, *LIHEAP Home Energy Notebook for Fiscal Year 2001*, Table 2.1, Page 4.

**Table 2-1. Residential energy: Average annual household consumption, expenditures, and burden by all, non low income, low income, and LIHEAP recipient households, by main heating fuel type, United States, FY 2001<sup>1/</sup>(See also tables A-2a – A-2c, Appendix A)**

Main heating fuel	Fuel consumption (mmBTUs) <sup>2/</sup>	Fuel expenditures	Mean individual burden <sup>3/</sup>	Median individual burden <sup>4/</sup>	Mean group burden <sup>5/</sup>
<i>All households</i>					
All fuels	103.3	\$1,537	7.0%	4.1%	2.7%
Natural gas	124.5	\$1,654	7.5%	4.2%	2.9%
Electricity	60.1	\$1,227	5.7%	3.4%	2.2%
Fuel oil	137.1	\$1,966	8.1%	5.1%	3.4%
Kerosene	75.7	\$1,331	7.7%	5.4%	2.3%
LPG <sup>6/</sup>	108.3	\$1,688	8.3%	5.4%	3.0%
<i>Non low income households</i>					
All fuels	110.7	\$1,651	3.5%	3.0%	2.2%
Natural gas	131.0	\$1,750	3.6%	3.1%	2.4%
Electricity	64.7	\$1,322	2.9%	2.5%	1.8%
Fuel oil	149.4	\$2,192	4.3%	3.8%	3.0%
Kerosene	82.5	\$1,412	4.0%	3.7%	1.9%
LPG <sup>6/</sup>	112.1	\$1,732	4.2%	3.8%	2.4%
<i>Low income households</i>					
All fuels	88.5	\$1,311	14.0%	9.1%	8.9%
Natural gas	110.2	\$1,443	15.9%	10.0%	9.8%
Electricity	51.5	\$1,052	11.0%	7.1%	7.2%
Fuel oil	113.6	\$1,536	15.3%	11.4%	10.5%
Kerosene	67.9	\$1,236	12.0%	11.3%	8.4%
LPG <sup>6/</sup>	101.3	\$1,607	15.7%	11.3%	10.9%
<i>LIHEAP recipient households</i>					
All fuels	92.6	\$1,301	17.2%	12.2%	11.2%
Natural gas	122.9	\$1,504	19.5%	14.4%	12.9%
Electricity	50.3	\$998	13.8%	10.0%	8.6%
Fuel oil	98.4	\$1,450	13.9%	12.8%	12.4%
Kerosene <sup>7/</sup>	68.1	\$1,195	20.0%	12.1%	10.2%
LPG <sup>6/ 7/</sup>	96.2	\$1,538	21.9%	16.2%	13.2%

<sup>1/</sup>Data are derived from the 1997 RECS, adjusted to reflect FY 2001 heating degree days, cooling degree days, and fuel prices. Data represent residential energy used from October 2000 through September 2001.

<sup>2/</sup>A British Thermal Unit (BTU) is the amount of energy necessary to raise the temperature of one pound of water one degree Fahrenheit. MmBTUs or mmBTUs refer to values in millions of BTUs.

<sup>3/</sup>Mean individual burden is calculated by taking the mean, or average, of individual energy burdens, as calculated from FY 2001 adjusted RECS data. See Appendix A for information on calculation of energy burden.

<sup>4/</sup>Median individual burden is calculated by taking the median of individual energy burdens, as calculated from FY 2001 adjusted RECS data.

<sup>5/</sup>Mean group energy burden has been calculated by first calculating average residential energy expenditures from the 1997 RECS for each group of households and dividing the adjusted figures for FY 2001 by the average income for each group of households from the March 2001 CPS.

<sup>6/</sup>Liquefied petroleum gas (LPG) refers to any fuel gas supplied to a residence in liquid compressed form, such as propane or butane.

<sup>7/</sup>These figures should be viewed with caution because of the small number of sample cases.

**Figure 2: The full Range of Energy Burdens.**

As shown in this table, the US median household energy burden (all fuels) is 4.1%, while 3% for non-low income households and 9.1% for low income households.

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## 2. Nevada Energy Burden

The Nevada interpretation of energy burden is currently that “energy” means the cost of energy calculated as the sum of the number kilowatt-hours used times the applicable electric rate plus the number of therms used times the applicable gas rate. The energy burden computed for all households for use in the SFY 2004 program is 2.9%.

As in the SFY 2003 Evaluation, we recommended that this definition be expanded by a revision to NRS 702.010 (Definitions):<sup>7</sup>

The specific recommendation is to include the fixed and variable cost but not fees and penalties. Since the division between fixed and variable cost is largely arbitrary, these costs should be included together. Although differing reasonable opinions are possible on this point, leaving fees and penalties out may be necessary in order not to remove the current degree of effectiveness of these signals.

Nevada has set the required payment at the median household energy burden for the state (NRS 702.260.6.a). This is a significant advance over other states in two regards. The median energy burden is inherently fair and this quality of being fair will continue over time while a negotiated percentage or dollar amount might be seen as reasonable or fair at one point in time but not another. Other states have generally adopted percentages or dollar amounts, and have in some cases placed them in their state codes without a provision for updating. In Nevada the median energy burden is updated each year using information on incomes provided by the State Demographer and energy usage data provided by the major electric and gas utilities.<sup>8</sup> This will provide automatic adjustment for changes in costs and keep the required payment at a fair level.

## 3. Household View of Energy Burden

Substantively, when you talk with people, energy burden is a matter of energy bills. Also, as any household struggling with bills can tell you, the relevant feature of the bill to the low-income household is the “Please Pay” amount.

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<sup>7</sup> Peach, H. Gil, Anne West, Ryan Miller, Ayala Cnaan & Luisa Freeman, State Fiscal Year 2003 Evaluation of the NRS 702 Energy Assistance Program & Weatherization Assistance Program, Pp. I-3 to I-4.

<sup>8</sup> This updating is an important feature of the Nevada legislation. In some states this was not as well thought through and fixed numbers were set by statutes without a provision for keeping the numbers current with the economy.

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## B. Income Allocation

The income donut for Nevada (Figure 2) shows why traditional cost-based determination of utility bills cannot work in the absence of transfer income to make the difference between what families are billed and the income needed to pay utility bills.<sup>9</sup>

Each part of the donut represents twenty-percent of Nevada households. Clearly, households in the bottom quintiles by income cannot be expected to pay cost-based bills without a transfer mechanism such as the Nevada payment assistance program. For the upper quintiles utility bills should be little or no problem.

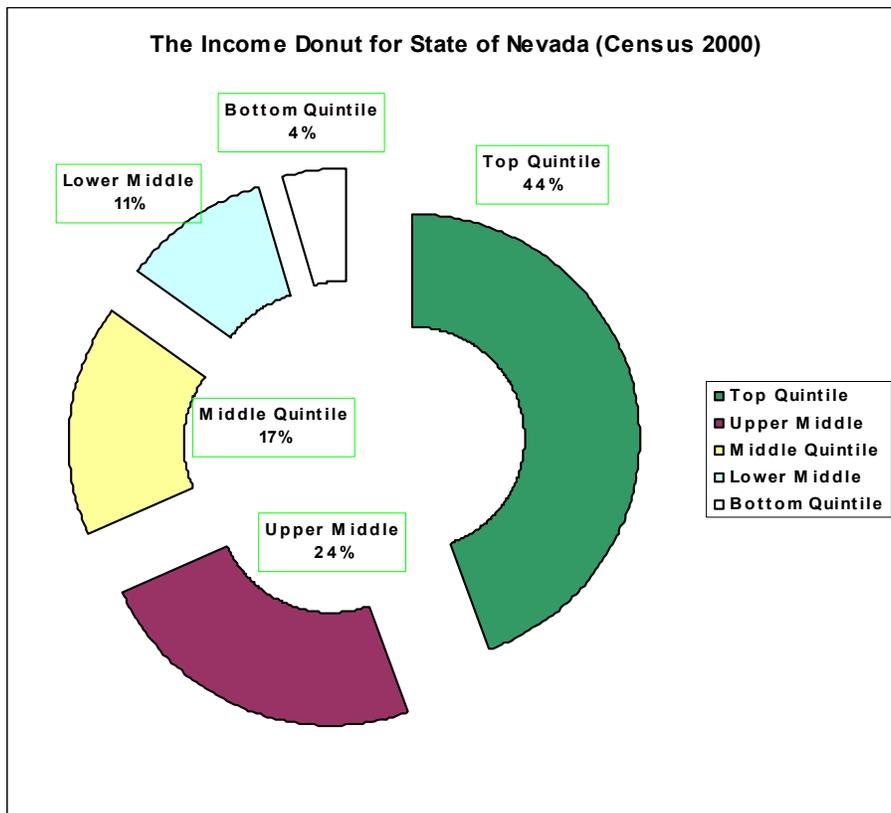


Figure 3: Income Donut – Income Allocation in Nevada.

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<sup>9</sup> Household income is derived as payment for work (wages, salary) or as transfer income through social programs. If the job structure does not provide income necessary to meet ordinary social costs of living, there is no alternative but to provide it through transfer income. Transfer income can take many forms, including direct assistance and, for example, public funding of community facilities such as parks, police departments, and fire departments which provide public services for all households, regardless of income.

### **C. Very Helpful, though less than Reliable Federal Funding**

Federal LIHEA funding has been on a general decline since the mid-1980s. Although funding is heading up from a low point during the “boom” period of the mid-1990s and has almost recaptured its dollar level in unadjusted dollars, total funding is still far below the current real dollar equivalent of the mid-1980s. Table 2 illustrates this decline in total LIHEA funding.

Also, the funding formula for LIHEA is permanently tilted towards the needs of the Northeastern states. Even at its peak, LIHEA could only meet a fraction of the actual need. The federal program is very valuable and useful to Nevada; it is however, variable and is funded far below the level of need.

Low Income Home Energy Assistance Program History of Federal Funding								
Federal Fiscal Year	LIHEA Block Grant	Leveraging	Contingency	Oil Overcharge	Total Funds	2004 Adjusted Dollars	% of 2004	% of 1985
1985	4,150,000	-	-	-	4,150,000	7,204,861	176.84%	100.00%
1986	4,010,000	-	-	-	4,010,000	6,831,346	167.67%	94.82%
1987	3,540,000	-	-	500,000	4,040,000	6,644,737	163.09%	92.23%
1988	2,980,000	-	-	2,041,859	5,021,859	7,933,427	194.72%	110.11%
1989	2,690,000	-	-	1,336,195	4,026,195	6,063,547	148.82%	84.16%
1990	2,711,280	-	-	1,530,000	4,241,280	6,058,971	148.71%	84.10%
1991	2,754,004	-	453,452	1,816,700	5,024,156	6,891,846	169.15%	95.66%
1992	2,870,660	242,217	-	700,000	3,812,877	5,077,067	124.61%	70.47%
1993	2,576,577	229,102	-	700,000	3,505,679	4,529,301	111.17%	62.86%
1994	2,754,413	176,024	-	-	2,930,437	3,695,381	90.70%	51.29%
1995	2,512,907	97,672	-	-	2,610,579	3,199,239	78.52%	44.40%
1996	1,710,491	156,931	351,152	-	2,218,574	2,641,160	64.82%	36.66%
1997	1,901,586	60,611	355,425	-	2,317,622	2,698,047	66.22%	37.45%
1998	1,901,586	60,906	-	-	1,962,492	2,247,986	55.17%	31.20%
1999	2,091,007	122,121	-	-	2,213,128	2,481,085	60.90%	34.44%
2000	2,091,695	90,447	816,470	-	2,998,612	3,252,291	79.82%	45.14%
2001	2,676,949	64,581	741,189	-	3,482,719	3,673,754	90.17%	50.99%
2002	3,262,202	168,143	1,312,645	-	4,742,990	4,925,223	120.88%	68.36%
2003	3,434,814	182,704	263,451	-	3,880,969	3,940,070	96.71%	54.69%
2004	3,436,889	559,849	77,573	-	4,074,311	4,074,311	100.00%	56.55%

**Table 1: Decline in LIHEA Funding since the mid-1980’s**

### **D. Energy Prices are Trending Upwards**

According to the US Bureau of Labor Statistics, gas prices have been increasing as a whole since January of 2000 in urban areas in the West. Figure 2 shows the average electric and gas utility price from January 1998 to June 2004. Even with the jump indicated at the beginning of 2001, probably due largely to the actions of Enron, the graph indicates an overall, steady increase in price. While there will be fluctuations, as has been the case in the past, this trend does not appear to have an end in sight.

Taken together, the income allocation and the price trends illustrate why it is that cost-based rates for energy services can no longer work for low income and some middle income households.<sup>10</sup>

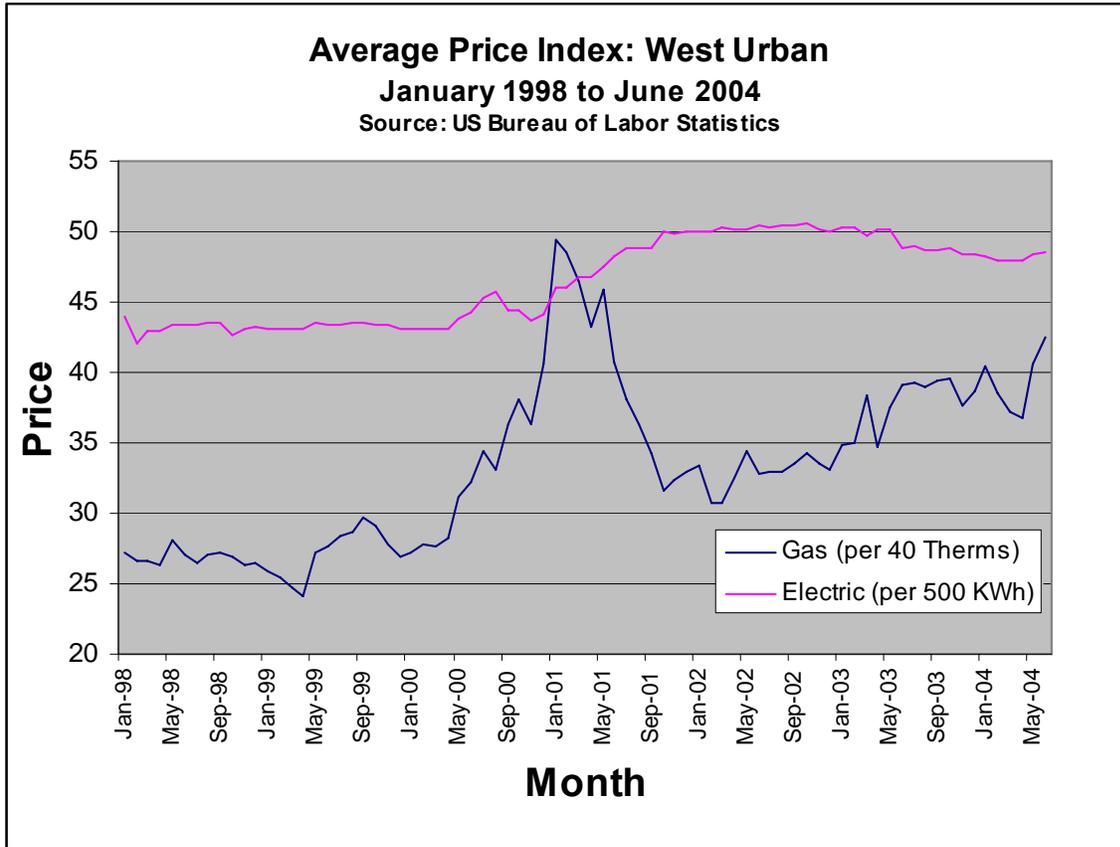


Figure 4: Average Natural Gas & Electricity Price Indexes: West, Urban.

**E. Number of Eligible Households**

The evaluation calculation is in agreement with the program calculation. There are approximately 158,000 households meeting the current income criteria for the programs (Table 1).

If the income level for eligibility were raised to 175% of poverty, approximately 196,000 households would meet the income criteria; if eligibility were raised to 200% of poverty, 234,000 households would meet the income criteria.

<sup>10</sup> The distribution of Income in the United States is moving increased income towards very high income groups in the upper one-percent of households and above and removing income from the bottom income groups, especially from low-income families with children.

Ratio-of-Income to Poverty Level, State of Nevada, by County - Estimated Households											
	Churchill	Clark	Douglas	Elko	Esmeralda	Eureka	Humboldt	Lander	Lincoln	Lyon	
Total	9,910	651,150	18,146	17,651	446	563	6,336	2,034	1,451	16,948	
Under .50	339	30,281	625	581	39	43	195	136	95	673	
50 to .74	210	13,733	399	348	27	31	155	20	57	427	
75 to .99	342	18,664	389	425	28	16	209	80	134	657	
1.00 to 1.24	386	22,455	516	649	23	26	200	69	82	651	
1.25 to 1.49	485	25,806	596	713	30	23	214	76	116	731	
1.50 to 1.74	597	26,258	624	732	40	37	267	77	98	939	
1.75 to 1.84	308	11,242	206	272	3	15	152	10	32	439	
1.85 to 1.99	220	14,786	301	394	10	24	122	63	28	458	
2.00 and over	7,023	487,925	14,492	13,537	248	348	4,823	1,502	809	11,973	
Under 150%	1,763	110,939	2,524	2,716	147	139	973	381	483	3,139	
Under 175%	2,360	137,197	3,147	3,448	186	176	1,240	458	581	4,078	
Under 200%	2,887	163,225	3,655	4,115	199	216	1,513	531	642	4,975	
	Mineral	Nye	Pershing	Storey	Washoe	White Pine	Carson City				Totals
Total	1,774	14,494	2,517	1,441	145,561	3,404	20,962				914,788
Under .50	169	688	168	65	6,265	172	947				41,480
50 to .74	63	452	56	11	3,572	151	610				20,321
75 to .99	85	562	60	30	4,211	141	638				26,671
1.00 to 1.24	96	917	206	57	5,395	210	812				32,749
1.25 to 1.49	145	871	95	71	5,596	163	972				36,702
1.50 to 1.74	105	991	123	70	6,172	173	960				38,264
1.75 to 1.84	33	459	65	34	2,396	52	564				16,282
1.85 to 1.99	65	466	57	5	3,521	255	451				21,225
2.00 and over	1,013	9,088	1,688	1,099	108,434	2,087	15,006				681,094
Under 150%	559	3,490	584	233	25,038	836	3,980				157,923 <
Under 175%	663	4,481	708	303	31,210	1,009	4,940				196,187
Under 200%	761	5,405	829	342	37,126	1,317	5,956				233,694

Source: 2000 Census, Summary File 3, Tables P88, P93; 2004 Population Estimates, Nevada State Demographer. See Calculations Worksheet

**Table 2: Number of Income-Eligible Households.**

These estimates are based on 2000 Census data, adjusted using 2004 population estimates from the State of Nevada Demographer.<sup>11</sup> Nevada is the fastest growing state and is currently growing very quickly in population. The table is adjusted to take into account Nevada's population growth since 1999.

**F. Another Approach to Need - Self Sufficiency vs. Percent of Poverty**

The current standard used to calculate eligibility for participation in low income programs is that of the Federal Poverty Level (FPL). A different metric, the self-

<sup>11</sup> Census data obtained from <http://www.census.gov>. State of Nevada Demographer data obtained from [http://www.nsbdc.org/demographer/pubs/pop\\_increase.html](http://www.nsbdc.org/demographer/pubs/pop_increase.html). The Census data comes from tables P88 and P93 of Summary File 3. Individual ratio-of-income to poverty data taken from table P88 is divided by the average household size. This table is then normalized to the number of households at 150% poverty taken from table P93 to give a household estimate of ratio-of-income to poverty level.

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*sufficiency standard*, allows for an alternative definition of eligibility. The sufficiency standard is relatively new and is not yet reflected in law. It comes much closer to representing the actual needs of families than the old federal metric.

The development of the self-sufficiency standard was required to take into account the many critical problems in the calculation of the Federal Poverty Level (FPL). The FPL is based on the concept that food is one third of the income expenditure of American people. This was not a bad estimate in the mid-1960's when the metric was created using data from the late 1950's. Since that time, although the poverty level is updated each year to take into account the change in the real value of the dollar, it has gone out of calibration with the reality it is required to indicate.<sup>12</sup> The federal poverty numbers *severely under-represent* actual poverty.

The existence of federal program guidelines based on 150%, 175%, 185%, 200%, or 250% of the Federal Poverty Level indicate practical adjustments to a defective metric. For example, the federal standard for LIHEAP is 150% of poverty or 60% of state median income, rather than the poverty level.<sup>13</sup> These adjustments attempt to take into account the failed calibration of the poverty metric but do so only in part. In general, there is strong consensus that Federal Poverty Levels do not accurately indicate need as actual households experience poverty.

However, the correction offering the least administrative burden is to set program eligibility levels at multiples of the official Federal Poverty Level.

- For example, in Nevada LIHEA eligibility is currently set at 150% of poverty.

Similarly, state mandated weatherization is set at 200% of poverty in Pennsylvania. California went to 250% of poverty for eligibility for its low-income rate program beginning in 2004. In November of 2004, Pennsylvania extended protections against utility shutoffs to 250% of poverty up from the 150% standard that was set in 1992. One component of the low-income weatherization program in Massachusetts, the

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<sup>12</sup> There are many questions regarding even this fundamental adjustment due to changes to and substitutions in the calculation of the Consumer Price Index. While such changes may be reasonable overall, they may bias the use of the index in adjusting actual costs of low and moderate income families. There is an absence of consensus on these changes.

<sup>13</sup> Because evaluations are generally more useful if they recommend conservative steps in most recommendation areas and due to the large problems that would be involved in moving away from some level of the federal metric, a recommendation in the SFY 2003 evaluation was to move from 150% of poverty to 60% of the Nevada median income, an option that is provided for in the federal LIHEA program. This recommendation is repeated here for the SFY 2004 evaluation, and it has the added advantage of allowing the federal and Nevada programs to be run in parallel. At the same time, we want to indicate that direction of change over a number of years should be towards the self-sufficiency standard as it is inherently a better measure. A subsequent change of this kind would require study and discussion among levels of state government and among all advocates and representatives of affected parties and would likely be a multi-year process. However, the direction in which to proceed is clear.

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Good Neighbor Program goes to 275% of poverty to be able to provide services to households in which one or more persons are working full time at less than a living wage.

Although it takes more work to calculate, the family budget approach used by the Self-Sufficiency Project is more accurate than the federal poverty level metric.

As a rule of thumb, mathematically recalibrating the FPL to its original relation to median income would lead to a criterion of 200% of the current FPL.<sup>14</sup> This, then, is a conservative base required for fairness in order to recapture the coverage of the programs in the 1960s during the War on Poverty and compensate for economic erosion. However, 250% of poverty is the level at which poverty is no longer experienced if we take into account additional needs such as a car, the ability to deal with medical needs, or the ability to put aside some resources for retirement, all of which are reasonable needs. To make sense of this, 100% of poverty as defined in 1965 is about the same as 150% of poverty in 1992 or 250% of poverty in November of 2004.

The bottom line is that the federally defined poverty criteria have become seriously mismatched to the actual situation of poverty as experienced by households. Being outside the 100% of poverty level today means little. The 150% of Federal Poverty Level is a criterion that captures a good bit of slippage in the federal indicator system. It restores a good portion of the effective level of the initial situation of the 1960s when the poverty definitions were introduced.

The 150% metric was a good fit in about 1992. The 200% level is more accurate today. But, *to be certain*, the 250% of the Federal Poverty Level indicates the rate at which poverty is not actually experienced and a minimal but decent level of family living over the full lifespan is supported.<sup>15</sup>

### **G. Comparison of Alternative Eligibility Levels**

As discussed in this section of the report, a full solution would be provided by a move to the 250% of poverty eligibility level, a level that is likely to replace the current 150% of poverty eligibility level in coming years. That is where the United States has to go if these problems are actually to be solved to the level that they are solved in

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14 Calculation performed based on data presented in Figure 2, P. 11. Pearce, Diana & Jennifer Brooks, "The Self-Sufficiency Standard for Pennsylvania, Summary Report." Swarthmore, Pennsylvania: Women's Association for Women's Alternatives: 1998. See also, "Working Hard, Living Poor, Part I: Nevada: Basic Needs and a Living Wage," A Report by the Progressive Leadership Alliance of Nevada, Susan Chandler, MSW, Ph.D., Project Research Director & Alicia Smalley, MSW, Research Assistant, August 2001. Progressive Leadership Alliance of Nevada, [www.PlanNevada.org](http://www.PlanNevada.org).

<sup>15</sup> The Self-Sufficiency calculation of 200% of the Federal Poverty Level does not allow for purchase of a car or other major items, provision for retirement, or the ability to deal with family emergencies.

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the European Union. However, currently, this evaluation recommends only the conservative first step – moving to 60% of Nevada median income.

The recommendation and rationale (from the SFY 2003 report) is as follows:

**Eligibility Level.** As shown in this study, the federal poverty definition is far out of date and has not been sufficiently recalibrated to make it directly useful. This is indicated, for example, by the program participation criteria having been set at 150% of the federal poverty level. Actually, about 250% of the federal poverty level corresponds to the divide below which families and households currently have the experience of poverty and above which they do not. California recently moved its low-income rate program to 250% of poverty, and other states (such as Pennsylvania) use 200% of poverty for their housing assistance (weatherization) programs. The general recommendation in this area is to take the reality that households face into account and move the eligibility level upwards from 150% of poverty but not higher than 250% of poverty. Within this range, the specific recommendation at this time is to move the eligibility level to 60% of Nevada median household income. For comparison, since the poverty metric is dependent on family size as well as on income, the equivalent poverty percentage of 60% of median income is a range of poverty percentages. This range runs from about double (200% of poverty) for one or two person families to about 150% for a family of eight, essentially where the eligibility level is now. Also, a move to 60% of median income permits maintaining compatibility with the flexibility provided in the federal Low Income Home Energy Program (LIHEAP). The programs could be set together at 60% of Nevada household median energy burden. This means the Nevada program and the federal program could be kept in parallel to provide equal service to households and families eligible for either, as is currently the case at the 150% of poverty level.

Table 3 shows the State Fiscal Year 2005 income levels for poverty (Col. 1), one-hundred fifty percent of poverty – the current program level (Col. 2), and sixty percent of Nevada Median Income (Col. 3).

The equivalent federal poverty level (FPL) for the sixty percent of median income eligibility criterion is shown in Col. 4. The relative percentage increase in moving toward higher eligibility levels is shown in Columns 5 through 8.

Comparison of Alternative Eligibility Levels								
HH Size	Federal Poverty Level		60% of Nevada Median		Increase from Current 150% Level			
	100% FPL (\$)	150% FPL (\$)	(\$)	%FPL	60% of Nevada Median	175% FPL	200% FPL	250%FPL
	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
1	\$9,310	\$13,965	\$18,591	200%	33%	17%	33%	67%
2	\$12,490	\$18,735	\$24,312	195%	30%	17%	33%	67%
3	\$15,670	\$23,505	\$30,031	192%	28%	17%	33%	67%
4	\$18,850	\$28,275	\$35,753	190%	26%	17%	33%	67%
5	\$22,030	\$33,045	\$41,473	188%	26%	17%	33%	67%
6	\$25,210	\$37,815	\$47,194	187%	25%	17%	33%	67%
7	\$28,390	\$42,585	\$48,266	170%	13%	17%	33%	67%
8	\$31,570	\$47,355	\$49,339	156%	4%	17%	33%	67%

**Table 3: Alternative Eligibility Levels.**

### ***H. Summary***

The purpose of this section of the report is to develop a sense of the context of need for the program. Energy costs are rising and real incomes are falling for low-income and moderate income families, especially for families with children. Federal support, though essential, is unreliable. The full solution would be to move support levels to self-sufficiency levels or to approximately 250% of poverty, a target level that is being arrived in different studies around the US. However, evaluations are by nature conservative, with a preference for step-by-step changes and measurements on results before moving to next steps.

Tables are provided to permit independent review of need. For the current program eligibility level about 158,000 households could be in the program.

The recommendation is move eligibility up to 60% of the Nevada median income, a change that is compatible with the upper end of current federal flexibility.

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### III. THE LOGIC OF THE PROGRAM & PROGRAM CHALLENGES

The US is experiencing *increasing energy costs*. This trend is expected to continue. Both gas and electricity bills are expected to continue to increase. At the same time, income trends of the last thirty five years follow the opposite pattern. Low-income to moderate income families and particularly low-income families with children are *losing real income* from year to year as the nature of available employment changes.

The Nevada UEC bridges these two trends and is the basis for universal service. The fund insures universal service while permitting Nevada's energy companies to remain solvent.<sup>16</sup>

#### ***A. Rationale for the Fund for Energy Efficiency and Conservation***

Self-help (including family and friends), and help from the community including lodges, civic clubs, unions, religious and community organizations help households to deal with energy affordability problems. Utilities typically provide equal payment plans, help customers align utility bill dates with pay days, help households contact fuel funds, and sometimes provide low-income rates.<sup>17</sup> However, need has grown (and continues to grow) far beyond the scope of temporary assistance and voluntary response.<sup>18</sup>

The Nevada UEC is one of several new state energy assistance funds established over the past ten years. It remedies a severe problem of many Nevada households – inability to pay for the energy necessary to meet such basic household needs as moderating natural temperature extremes through home cooling and home heating. Federal LIHEAP funds, also used for these purposes, are *always* far short of need in Nevada, are unreliable in amount, and are “locked in” by an allocation formula that sends these funds primarily to the Winter weather states of the Northeast.

The Nevada UEC provides a means for the state to respond to the underlying tension between the trend in energy costs and the trend in ability to pay in a manner that is more appropriate for the particular needs of this geographic region.

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16 Several states are now turning to the UEC model, including Maryland and, most recently, New Jersey. The underlying tension of increasing energy costs and decreasing ability to pay is in play throughout the United States. With a UEC, energy costs can be covered and service provided. In states without a UEC, in the fall and winter of 2004 households are being excluded from service as companies struggle with the problems of non-payment.

17 For a history through the early 1980's, see Sweet, David C. & Kathryn Wertheim Hexter, *Public Utilities and the Poor, Rights and Responsibilities*. New York: Praeger, 1987.

18 Similarly, in broad areas of the country, food banks have grown dramatically but hunger has increased. For how voluntary capacity has been overrun, see: Pependieck, Janet, *Sweet Charity?* New York: Viking, 1998.

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## **B. Programs of Energy Assistance: Six Characteristics**

Six features define the careful and conservative character of the Nevada UEC:

(1) **Requirement to Pay-In.** *It is necessary to pay into the UEC to be eligible for UEC assistance.* In the legislation, paying in is determined primarily by utility service territory. The paying in provision is a link to the tradition of balance of self-reliance and the community pulling together when necessary.<sup>19</sup>

(2) **Inability to Pay.** Nevada households that encounter problems paying basic energy bills are *not* refusing to pay for service. They have, instead become either temporarily or (increasingly) permanently *unable* to pay for necessary energy on a “cost of service” basis. The new generation of UEC programs adopted in a number of states represents attempts by legislatures to deal with the reality that energy affordability is now a chronic rather than a temporary problem for a large and increasing number of households.

(3) **Realistic and Fair.** By setting the UEC payment assistance at the level of the Nevada median household energy burden, the Nevada UEC establishes a realistic level of payment assistance. The level is inherently rooted in a principle of fairness – energy assistance is provided at the level of the median percentage of household income for the state. The portion below that level remains the household’s responsibility. The portion above that level is covered by the UEC fund.

(4) **Starting with a Conservative Eligibility Level.** The eligibility level for SFY 2003 was set at 150% of the federal poverty level. Our calculations indicate that the current actual breakpoint for poverty in the US is 250% of the poverty level (a point of increasing consensus arrived at in different studies around the US), and some of the newest program changes in other states are employing levels of two-thirds of state median income, 175% of poverty, 200% of poverty, or 250% of poverty. But 150% is a reasonable level to start the program.

(5) **Understanding of Long-Term Energy Affordability Problem.** Unless there occurs a dramatic turnaround in the provision of “living wage” jobs (defined as a job that can support a family, including some provision for meeting medical needs, a car, and retirement) increasingly large numbers of American households, including households with one or more full time workers, and a good history of bill payment and work discipline, will be unable to fully pay for their basic energy needs.

As globalization advances, there is nothing on the horizon that offers to restore opportunities for “living wage” jobs for households who lose them, or for newer households that are formed. For low and moderate income households, real income is likely to continue to decline. The Nevada UEC payment assistance is therefore

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<sup>19</sup> Federal funds and some other state funds are used to the extent available to help households not paying in to the Nevada UEC.

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essential – picking up the part of the energy burden that is higher than that of the median Nevada household. While households must reapply each year and there will always be some turnover for some households where conditions improve, the affordability problem is built-in to the national economy.

**(6) Investment and Cost-Effective Approach to Weatherization.** Weatherization fixes a home so that it can require substantially less energy to achieve the same (or sometimes better) levels of cooling, heating, and other energy services. The one-time investment of weatherization, combined with occasional minor maintenance is designed to provide an economically cost-effective return on investment over many years. The investment nature and the cost-effective return for the “weatherization package” as a whole define the essential characteristics of the Housing Division portion of the Nevada UEC fund.

### ***C. Increasing Resource Scarcity***

Each year it takes more energy per unit of energy extracted to develop the remaining gas supply. During the brief encounter with energy deregulation, regulatory oversight in neighboring states was relaxed and new electricity plants were designed to capitalize on the advantages of natural gas. Had there been strong oversight it is likely that much greater fuel diversity would have occurred; along with a continuation of the very strong demand-side management effort of the early 1990’s in order to gain identical benefits from less fuel use. The lack of appropriate fuel diversity means, nationally, that households and electric generation stations are in competition for gas supply.

In the past few years as gas costs have risen and remained high, a secondary effect has been an increase in use of electricity when households cannot pay their gas bills. This creates an increase in electric bills. The net effect at the household level is that energy bills become difficult and then impossible to pay.<sup>20</sup> Both gas and electric utilities in much of the US are now experiencing payment problems unprecedented since the 1930s.

At the same time current climate research is reporting a decline in Sierra Nevada snow pack and Cascade snow pack. Loss of free water storage in the form of snow pack will require greatly increased attention to problems water supply in neighboring regions of California and the Northwest.<sup>21</sup> The primary effect on electricity is in the

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<sup>20</sup> There is a possibility that the shortage could be remedied through the development of LNG stations along the California coast. However, new LNG tankers and stations raise problems of security and it is unlikely that any coastal community would permit new stations if included in planning consultations and permitted to choose whether they would like a new LNG terminal next door.

<sup>21</sup> Welch, Craig, “Global Warming Hitting Northwest Hard, Researchers Warn,” *Seattle Times*, Saturday, February 14, 2004; Luers, Amy Lind, “A Tale of Two Futures, California Feels the Heat,” Pp. 8-9, *Catalyst*, Fall 2004.

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projected depletion of hydro-generation resources in regions connected to Nevada over transmission interties, leading to scarcity and up-pricing in neighboring jurisdictions.<sup>22</sup>

#### ***D. Traditional “Cost of Service” Pricing***

With the exception of the deregulation experiments in some states in which pricing was envisioned to become a purely market function, in the US, utility rates are traditionally regulated to reflect actual cost of utility service. There is an inherent sense of fairness in this principle. The “cost of service” principle is retained today for electricity and gas distribution. The “commodity cost” of gas is generally now treated as a “pass through” under contractual arrangements though which gas utilities try to minimize price, but price is determined by market conditions of supply and demand. The “generation cost” of electricity is determined by both market forces and regulations as to which customers will share in the cost of traditional integrated utility generation and which will be free to purchase the “generation part” of electric service from other kinds of non-regulated merchant entities. Merchant entities do not follow a cost of service principle; they look for value in deals.

What has been found in deregulation is that these deals disproportionately benefit the major market players at the expense of the residential, small commercial and low-income sectors. When some entities are freed to choose a supplier, everyone else has to cover more of the fixed costs of community utility generation, so household energy bills increase due to yet another market factor.

However, neither market (deregulated) rates nor regulated cost of service rates can work for low-income households and for many moderate income households. For many households, changes in jobs, rapidly increasing housing prices, and decreasing real incomes are causing households to gradually lose ability to consistently pay their utility bills. Even if full traditional regulation is used, the logic of allocating rates based on cost of service only works if incomes are generally both adequate and do not show substantial extremes.<sup>23</sup>

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<sup>22</sup> This is the classic problem of physical limits. The climates studies show the problem is occurring on the electric side due to global warming as it also occurs on the gas side with depleting gas supply. Limits situations require strong state regulatory protections, strong state and utility planning capabilities, and enforcement. For economic theory for dealing with realities of physical limits, see: Georgescu-Rogen, *The Entropy Law and the Economic Process*. Cambridge, Massachusetts & London: Harvard University Press, 1971. Also see: Odum, Howard T. & Elisabeth C. Odum, *A Prosperous Way Down, Principles & Policies*. Boulder, Colorado: University Press of Colorado, 2001.

<sup>23</sup> It is important to note that there is nothing wrong, in principle, with markets if all members of the community have the income necessary to participate in the markets and meet their energy needs. Also, basing rates on cost of service is technically rational. It is only that if households increasingly lack ability to pay, and real household income declines from year-to-year, cost based rates and traditional payment policies will not permit essential electricity and gas service for an increasingly large number of low-income and moderate income households.

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The Nevada UEC payment assistance program is a realistic solution to this ongoing and growing problem. It meets increasing cost based rates with payment assistance set at the median household energy burden. As rates increase and bills change, the Nevada UEC will likewise adjust.

### ***E. Challenges to the Program***

As a rule of thumb, a program of this scale would take five (5) years to come fully “up to speed.” State Fiscal Year 2003 was the first real program year and SFY 2004 is the second. The payment assistance and weatherization assistance components of the Fund for Energy Assistance and Conservation are now “up and running” successfully, so the program effort is doing well along a realistic track.

By the close of SFY 2004, the major challenges of “start-up” had been met and resolved. Yet, it is in the nature of challenges that there are always more, and unless continually addressed and resolved they may grow. So there was no rest for operating agencies and staff for SFY 2004 or foreseeable in SFY 2005 even as major accomplishments have been attained. Intermediate-level challenges remain.

#### ***1. Internal Challenges***

Internal challenges can be primarily dealt with within the agencies and the state system, including program management, IT support, and development of procedures.

- **Formal Compliance.** Formal compliance is assessed by comparing agency work effort to the legislation mandating it. Formal compliance is very good, as discussed in the compliance sections of this report.
- **Informal Compliance.** In addition to formal compliance, informal compliance is an intangible dimension concerned with how the program effort appears and the informal relations that support formal compliance function. Informal compliance is proceeding well.
- **Reporting Systems.** Management reporting is essential for steering program implementation, insuring compliance, and maintaining program effort. This is the challenge of developing adequate tools (internal reporting systems) for managing the programs. The automation work plan for SFY 2005 includes the missing reporting capabilities for payment assistance. [The SFY 2003 Evaluation included recommendations concerning reporting and automation.]
- **Coordination.** The most effective overall program effort would include close coordination between the payment assistance program (Welfare Division) and the weatherization assistance program (Housing Division). Coordination is an

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element of the enabling legislation. There are ongoing needs to continue to strengthen coordination. [The SFY 2003 Evaluation recommended Welfare be given the ability to designate excess Welfare funds to Housing as needed (IX.A.7). It was also recommended the Welfare Universal Personal Identifier be used to facilitate tracking and evaluation (IX.B.4).]

- **Fiscal Management.** Although generally handled by existing state systems, there is a challenge in insuring accuracy of fiscal tracking.<sup>24</sup> However, there have been no problems in this area.
- **Automation.** The initial challenges in this area have been met, with the final focus on payment assistance reporting systems underway at the close of SFY 2004.

## *2. Internal & External*

The areas above are similar to challenges that occur within any program implementation. Yet some challenges have very strong external components. These can be dealt with using internal resources. However, since they have large external or contextual components these challenges may require substantial effort, including iterative trial and error approaches, until the right combination of approaches enables the challenge to be met. There are three challenges of this kind:

- **Outreach.** Outreach is both an internal and external challenge. There is a very strong and demonstrated need on the part of Nevada households for both payment assistance and weatherization assistance. Also, both parts of the program are well designed to make a real difference for eligible Nevada households. However, outreach is not automatic, and may require some years of effort, testing approaches, to flow smoothly.
- **Great Natural Diversity.** Another problem that is internal and external is how to deal with the great diversity of Nevada, from small communities and rural areas where it is more difficult to provide weatherization services to large cities; and the diversity of climate zones that include needs to focus on both cooling and heating.
- **Marketing.** A further problem is the inherent tension between marketing weatherization, for which comfort of the home is very important to the household. “Packages of measures” must combine ranking of weatherization measures in terms of cost effectiveness with some overhead features the households value in addition to energy efficiency. This marketing fact operates like a natural law. It is a social fact that has to be accommodated in program

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<sup>24</sup> Since this is an evaluation rather than a financial audit, we confine consideration of the financial area to aspects that concern evaluation.

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administration. The measure package must be optimized for market participation as well as for cost effectiveness. This is a joint optimization that requires trade offs to make the program acceptance work.

### 3. *External Challenges*

The external challenges lie in the national and state economy.

- **Funding Level.** Looking forward, energy costs will rise while real incomes will likely continue to deteriorate. This will affect the need for program funding. At some point in the next few years, the legislature will need to consider further funding as service targets are reached. [The SFY 2003 Evaluation recommended several changes to how program funds are allocated in the interest of providing the most efficient use of the limited funds (IX.A.1-3).]
- **Eligibility Level.** Looking at the eligibility level of 150% of poverty, a number of states are moving eligibility for payment assistance or weatherization assistance to 60% of state median income (permitted under the federal program), 200% of poverty, or 250% of poverty. This is another area of challenge for serious, but careful and conservative analysis and planning. It is likely that the US as a whole will need to begin a discussion of providing support to self-sufficiency levels or 250% of poverty if these problems are to be solved. [The SFY 2003 Evaluation recommended the eligibility level be set at 60% of state median income (IX.A.4).]
- **Turnover in the Housing Division Effort.** Nevada has a shortage of skilled weatherization contractors both within and outside of community based organizations. Other states with a smaller geography and more compact population have a “critical mass” of weatherization specialists in agencies and independent contractors. This is an external challenge that creates a need for continued training and steps to hold on to skilled people in the weatherization services grantee agencies. [The SFY 2003 Evaluation recommended the Housing Division assign at least four staff positions to oversee WAP, including two significant additional positions, a Technical Officer to carry out training and a Program Research Assistant (IX.C.1)]
- **Turnover in the Welfare Division Effort.** More broadly, both the Welfare Division and the Housing Division are experiencing intense pressures that induce people to move on to better jobs. Because most of the staff working on the payment assistance program is not in civil service, there is a tendency to take civil service exams for other functions once they have become familiar with the state system. One of the recommendations in this document (see below) will be to convert certain positions in the Welfare Division to be civil service positions. [The SFY 2003 Evaluation recommended the Welfare

Division convert at least five case officer positions to Civil Service status to reduce the effects of staff turnover (IX.B.1).]

**F. Logic Model**

<b>Program Logic Model</b>				
<b>Activities</b>	<b>Assumptions</b>	<b>Objectives</b>	<b>Indicators</b>	<b>Means of Verification</b>
<b>Insure collections and appropriate refunds - Public Utility Commission (PUC)</b>				
<b>Administration</b>	The PUC is the collector, since it is granted full authority to regulate, audit, and investigate, and enforce utility compliance.	Collect and Transmit UEC Funds to Welfare Division	Funds collected, appropriate refunds made on request, funds transmitted to Welfare Division	Match of PUC and Welfare Division records.
<b>Low Income Energy Assistance Program - Welfare Division (NWD)</b>				
<b>Administration</b>	The percentage is workable for administration.	Implement, Administer	Implementation in compliance with regulatory intent (NRS 702)	Interviews, Compliance Review, Analysis of Effectiveness
<b>Assistance</b>	Assistance will permit continued service and help with economic viability of households.	Provide targeted assistance	Assistance program developed and implemented. Internal support systems in place.	Interviews, Document Review
<b>Consumer outreach</b>	Outreach and contact is a function that requires special effort	Enroll households	Enrollment campaign in place in SFY 2004; targets met or approached.in SFY 2005	Interviews, Program Records, Document Review
<b>Program design</b>	Program improvement is a continuing function.	Construct annual Plan	Program improvements developed. Arrearage Component ready at end of SFY 2004 to go into effect in SFY 2005. Annual plan submitted.	Interviews, Review of Plan
<b>Annual Evaluation</b>	Annual evaluation will provide useful assessment and feedback for improvement	Complete annual Evaluation	Evaluation for SFY 2004 completed.	Completion of Evaluation
<b>Weatherization Assistance Program - Housing Division (NHD)</b>				
<b>Administration</b>	The percentage is workable for administration.	Implement, Administer	Implementation in compliance with regulatory intent (NRS 702)	Interviews, Compliance Review, Analysis of Effectiveness
<b>Energy conservation/efficiency services</b>	Services will lower energy bills	Arrange services	Subgrantees developed, training developed, services arranged	Interviews, review of Documents
<b>Improvements for energy conservation/efficiency</b>	Physical improvements will lower energy bills	Arrange installations	Improvements installed in homes, reporting system functional, inspections completed	Interviews, Review of Program records, systems, and documents
<b>Consumer outreach</b>	Outreach and contact is a function that requires special effort	Enroll households	Enrollment target met or approached.	Interviews, Program Records, Document Review
<b>Program design</b>	Program improvement is a continuing function.	Construct annual Plan	Program improvements developed. Annual plan submitted.	Interviews, Review of Plan
<b>Annual Evaluation</b>	Annual evaluation will provide useful assessment and feedback for improvement	Complete annual Evaluation	Evaluation for SFY 2004 completed.	Completion of Evaluation
Note 1: Energy Assistance Authorization: The 2001 Nevada Legislature Assembly Bill (AB) 661, codified as Nevada Revised Statute (NRS) 702. Note 2: The three logic models included in this table show the interlocking logic of the Nevada Fund for Energy Assistance and Conservation.				

**Figure 5: Overall Logic Model.**

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The overall logic model for the programs implemented from UEC funding is shown in Figure 5.

The logic model is actually three interlocking models:

- One for funding;
- One for payment assistance;
- One for weatherization assistance

In this model, for each activity there is an objective. Each objective has associated indicators and a means of verification. Together, the elements in this model and the discussion that has been presented in this section frame the overall logic of the program.

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## IV. PROGRAM STORIES

Nevada's Universal Energy Charge (UEC) creates a fund that helps address the payment problems encountered by low income families squeezed between increasingly high energy costs and decreasing opportunities for earning the incomes necessary to pay these costs. The Fund for Energy Assistance and Conservation (FEAC) funds two services: payment assistance and weatherization assistance. The fund created through the UEC insures universal service while permitting Nevada's energy companies to remain solvent.

Through the program, income eligible families may receive weatherization measures to improve heating and cooling, repairs to and replacement of inefficient appliances and HVAC equipment, high efficiency windows and energy efficient light bulbs. Virtually any energy-consuming equipment or system can be treated to help eliminate wasteful energy use in the home. At the same time, safety is a key consideration in these homes, and measures are simultaneously taken to ensure that homes are free from potential fire hazards (from situations such as poor wiring) or indoor air quality problems (caused by situations such as inadequate ventilation).

Homeowners and renters come closer to self-sufficiency through this approach of treating the house and making it as environmentally safe and energy efficient as possible, then addressing any remaining constraints on a household's ability to pay the lower-but-still-high energy bills.

This evaluation has enumerated and measured the specific types of actions taken in each participating household over the past year. This section addresses the less tangible benefits gained by participating households that are nonetheless an important and equally necessary part of the program. Many low income households harbor feelings of being overwhelmed, of hopelessness and inadequacy in dealing with the pressures caused by poor housing, high energy bills and low incomes. Through participation in the UEC/Fund for Energy Assistance and Conservation programs, these feelings have been replaced by feelings of hope, increased control over one's situation, and a general sense of empowerment that can lead toward economic self sufficiency and – if the job market and general economy also improve - reduced dependence on government programs over the long run.

The lesson learned from previous low income program models is that this specific goal of economic self sufficiency could not be achieved through addressing only one half of the problem – either weatherization or payment assistance alone. Rather, both halves must be addressed simultaneously.

To document these impacts of the UEC, interviews were conducted with six Nevada families, three each from the Energy Assistance Program and from the Weatherization Assistance Program.

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Their stories are summarized below.

### ***A. Energy Assistance Participants***

All of the recipients of payment assistance indicated that the full amounts were sent directly to the utilities, and where appropriate, a credit was logged on their accounts. Some noted that the funds had run out and they were again in arrearage situations. Virtually all indicated interest in applying again in 2005.

Of the three energy payment assistance households included, none said they were aware of the weatherization component of the program. Of all those interviewed, half had taken steps on their own to put plastic on windows, caulk or weatherstrip windows or doors, and wear extra clothing during winter months.

#### *1. Mr. and Mrs. S*

Mrs. S and her husband Robert live in Silver Springs, Nevada and live on social security payments totaling \$12,900 combined. Mrs. S is 71, and suffered her second heart attack this year, according to a letter sent thanking the LIHEA office in October. Mr. S is permanently disabled, and Mrs. S handles the household matters, as well as decisions related to energy use and bill payments. She is very appreciative of the assistance provided. She reports that Medicare benefits were increased by \$17.00 and her social security was subsequently decreased by the same amount, so her income situation is unchanged.

Mrs. S says the program was “simply great” and has “helped put more food on our table.” In addition, their medical expenses have been high, and the payments to the utilities have enabled them to use their scarce resources to help pay for other necessities. The payments were made directly to the utilities, electric and propane - but she feels that Sierra Pacific is not applying the payment correctly. She reports that “we had a credit that reduced too quickly” and they won’t clarify it for her in spite of several calls. The propane company, Bi-State Propane in Yerington, “was great.”

Mrs. S and her husband live in their own single family home. She says she is totally unaware of any weatherization assistance. She would be very interested in learning about whether they might qualify for weatherization assistance as well. For now, she has written a letter (noted above) to request application for the 2005 energy assistance program again, since she is still unable to make ends meet on their social security income.

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## 2. Ms. C

Ms. C says that she had always thought that when she reached this time in her life (in her 60s) that life would be easier, that she'd be able to manage. But this has not been the case and it has been a shock to her. She receives about \$1000 per month in income, but has to pay \$360 per month just for medical insurance payments. Even with the insurance, however, when she is sick she still has to pay out of pocket directly. She is a person who has never asked for help, but when she heard from a neighbor that she would probably qualify for the energy assistance program, she was thrilled. "God bless you all for this help. It has helped me immensely." She has been struggling to cover her monthly expenses and has done whatever she can to keep her heating bills low. "I am wearing layers of sweaters, you should see!" She reported having bought weather stripping and used that, too. She was unaware of any weatherization assistance, however, and is interested in finding out more about that, and whether she would qualify for help. The payment assistance has mainly helped her cover what she terms outrageous medical bills. Ms. C is 62, and does shopping for her elderly neighbors. They returned the favor, she says, by putting her in touch with the energy assistance program.

## 3. Mr. S

Mr. S answered the phone after the introduction about the energy assistance program by saying "Praise the Lord!" He had struggled with his energy bills from both Southwest Natural Gas and Sierra Pacific this past year and found the energy assistance payments "a lifesaver." He says that the payments enabled him to pay off his accounts and put more money toward food. Mr. S is disabled but does not have any special waiver with the electric company regarding shut offs from lack of payment. He is very grateful for the assistance that kept his arrearages from resulting in a lack of electricity.

Mr. S is a former insulation salesman/installer, so he has already done what he can on his relatively new mobile home. Even though he does not think there is much that could be done to improve the energy efficiency of his home, since it is fairly new, he was unaware of the weatherization assistance program.

Mr. S subsists on his monthly social security and disability checks, which total \$7,400 per year. He is 57 years old, and says in a letter he wrote to the Nevada State Welfare Division, "Thank you very, very much! This means a lot to me. I can now buy groceries and gas for my truck. Thanks once again. God bless you all Welfare Division of Energy Assistance Program."

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## **B. Weatherization Assistance Participants**

### *1. Mrs. E*

Mrs. E is an elderly woman who lives alone in her older mobile home on property owned by her son. She lives on about \$6,700 income per year. In the interview, she strikes one as a relatively self-sufficient person who is struggling with the limitations now being imposed by age. Like many others in rural areas of the state, her home is relatively remote. She says she has been cooped up quite a bit since October, when snow first came to the area and has not let up since. She is extremely grateful for the work done on her modest home through the Weatherization program. All her windows were replaced. "The windows are a godsend!" It is less drafty, and much more comfortable. In the past, she had to use storm windows that were so heavy that she could not lift them herself starting a few years back. "I had to struggle with the storm windows, and couldn't ask my son to help because he is disabled." Consequently, once she got them in, she left them in all summer. Even while some windows had storms, the age and condition of the old windows allowed significant air infiltration. She has had to put plastic on the windows in the past to cut the draft, but not since the new windows were installed. For that she is very grateful. Overall the program has been: "really wonderful. I did not quite know what to expect."

Although her records show her to be a high energy user, Mrs. E says that she frankly had not noticed any change in her energy bills, primarily because rates continue to go up. Electric rates have increased, and she says it is hard to tell if there has been any savings on propane either. Rates have increased for propane as well.

Mrs. E reports having taken advantage of LIHEA in the past and will probably do so again. Otherwise, participating in the state program has been a new experience for her, and a very pleasant one.

She says the installation crew was very courteous, and cleaned up really well after they completed the work. Mrs. E already had smoke detectors in her home and the installation crew installed Carbon Monoxide (CO) detectors.

The only concern that remains for Mrs. E is in regard to exterior doors in her home. Mrs. E says that originally, the crew that came to do the work had on their specifications to also replace the 3 exterior doors, but they did not do so (no explanation was given, apparently, but it is almost certain that the cost for putting in the windows expended the budget for the home).<sup>25</sup> She says that the mobile home was used when she moved in, and that her son attempted to upgrade the old doors by replacing them at the time, but that he used interior doors, and that they are now cracked and really insufficient. Although she is very happy with the work that was accomplished, it was clear that if it were possible to have these doors replaced as well, it would make a significant difference.

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<sup>25</sup> Note that, in this case, doors might be more properly a rehab issue rather than a weatherization one.

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Overall Mrs. E was very pleasantly surprised by what was done for her home through the program and she is very happy.

## 2. *Mr. L*

Mr. L is elderly and lives in a mobile home park in Las Vegas with another family member, who is disabled. They live on an annual income of about \$13,000. Mr. L himself is on oxygen and so has received forgiveness on overdue electric bills, avoiding service cutoffs in the past: "They let me run over, but I still need to make payments periodically to keep up." He feels that the weatherization program is excellent for elderly people on fixed incomes who really cannot afford to get such improvements done on their homes. Mr. L says his power bill decreased in the summer, and in the winter he has similarly seen a lower gas bill. "The windows have really helped." Mr. L did not know about payment assistance and says he would like to receive an application for next year, in case he needs it for his electric bill.

He feels the program has been excellent, far better than what he had even expected. The installers were prompt, came when they said they would, and when they found they had to get more materials, they came back the very next day. "The general contractor was excellent."

Mr. L was particularly impressed because the program people went beyond the immediate work and made arrangements with "Christmas in April" to cover the balance of the costs for doing some roofing insulation (foam), which is taking place next week (first week of January 2005). So not only did the program cover the costs for significant window replacement and other retrofits, but it helped him access other services for which he is eligible.

The savings on his energy costs have "changed our economic situation, now I can pay the bills." He says he still gets behind sometimes, but it has made a tremendous difference.

In terms of comfort, Mr. L says there is virtually no infiltration now, no draft anymore and it is very much more comfortable in both winter and summer.

The only area of concern to Mr. L is that the combined unit that was put in for both heating and cooling is smaller than it should have been given the location (at the end of his unit) and size of his home. However, the proper sized larger BTU unit would have required too many structural changes – such as taking out a wall – and therefore he was happy to get what was installed. A bigger fan would do more to bring the air conditioning or heat throughout more of the house, but he is very happy nonetheless. Also, only one exterior door could be replaced due to budget and sizing limitations, but as they could not change the front door, it was weatherstripped

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instead. The odd sizing of the front door for mobile homes prevented them from being able to install a new front door, according to Mr. L.

Mr. L says the installers put in water conservation devices, smoke detectors, Carbon Monoxide (CO) detectors throughout the house as well. While both their comfort and energy bills have improved, Mr. L says there are still things he will need to adjust in his budget in order to make his energy payments. He intends to seek payment assistance to help cover overages in the future.

Mr. L concluded by saying that the program has been really wonderful, excellent and will have long lasting impacts for his household. He also says that “everyone in our mobile home park that participated has benefited greatly from this program.”

### 3. Ms. H

Ms. H lives ten miles from her mailbox in a remote part of Pershing County, Nevada. She is elderly and lives on an annual income of about \$7,600. She has been snowed in for some time this winter and is very grateful for the new windows that were installed in her home through the program this past January (2004). She had four out of 7 windows replaced – they could not do the rest because of budgetary limitations, but she says the 4 new windows have made a significant difference in her comfort. Almost equal in importance to her, however, is that she can “see outside!” Her previous windows were louvered, very old and scratched up, and she could not see out of them in the winter because she had to tack up plastic on every one, including four large windows in her living room. Now she is very happy that not only is the room free from drafts, but she can see the beautiful view.

Ms. H applied for LIHEA last year and intends to file papers again this year (for 2005). She suspects the application forms are in the mailbox, but she says they will probably be there for quite some time since she has no intention of hiking the ten miles in the snow to retrieve them anytime soon.

Aside from the increased comfort in the house, Ms. H has not noticed any change in energy bills, even though she feels certain there must be some positive benefit. The reason is that rates for propane have been very high. She recently found out, through her son in law, that AmerGas was much higher on their rates than Western States (\$2.12 versus \$1.85/gallon) so she is switching propane services. She feels that the .27 cents per gallon savings - times her 325 gallon tank capacity - will be significant both immediately and in the long term. She is switching over next week, and after she gets the new tank installed from Western States, is having AmerGas pick up their tank and hopefully refund her any propane that’s left plus any LIHEA money that may be on her account. Ms. H does report using her wood stove a lot less this heating season over last year, however, and attributes this in part to the improvements made in her home from the weatherization program.

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“The contractor did a great job, they were very pleasant, then the work was inspected by the ‘big boss’ – a lady from the program – who came out for the inspection and said they did a good job. They were very punctual and timely – only problem was that they chose to do the replacements on a very cold and windy day!”

Ms. H feels she will receive long lasting benefits from the improvements, and while she hopes they could come back and do the rest of the windows, she feels considerably more comfortable and is very appreciative.

Since the weatherization program experience, she says she has “looked into everything that’s offered” and takes advantage of what she can. She still has problems making all her payments, but says that in three months her car payment will be paid off and combined with switching propane suppliers, she hopes she will be in a better position to handle her monthly energy bills.

### ***C. Summary***

In summary, it appears that the customers interviewed had a very positive experience with the program. Among the minor problems that did occur, the most common seemed to center on the customers’ understanding of the weatherization measures that were to be installed. For the most part, however, the customer interviews show that the programs make a difference in the lives of those in need.

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## V. FISCAL ANALYSIS

The Universal Energy Charge (UEC) was established by the 2001 Nevada State Legislature, and became effective during State Fiscal Year 2002.<sup>26</sup> The first real program year was SFY 2003. The fiscal analysis for this evaluation is focused in the evaluation window for the report, State Fiscal Year 2004.<sup>27</sup> Data from the prior fiscal year is included to show the SFY 2004 against the figures for the previous year.

This section of the report relies on amounts reported in the state computer system (DAWN) and accounting provided by the Welfare Division and the Housing Division. When there are discrepancies, we use the Division accounting numbers.

### A. *The Charge (UEC) and the Fund (FEAC)*

There are two high-level fund categories:

- **UEC:** The Universal Energy Charge (UEC) represents total collections of the Universal Energy Charge.<sup>28</sup> Collection is an operation completely separated from program administration and is separately administered by the Public Utilities Commission. The Public Utilities Commission began to receive Universal Energy Charge payments in the fall of 2001 (early in SFY 2002). Amounts collected are periodically reconciled and then transmitted to the Accounting section of the Welfare Division.
- **FEAC:** The Fund for Energy Assistance and Conservation (FEAC) is maintained by the Accounting section of the Welfare Division. The FEAC is the UEC minus the administrative expense for the Commission. In addition, it includes any carry over funds from a prior fiscal year and any interest accrued. It is reduced by the amount of any refunds directed by the Commission.<sup>29</sup>

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<sup>26</sup> Collection for the UEC was fully functional in SFY 2002, but the programs were not yet functioning under the new designs and were only starting up. The legislation specified that the new program designs would become effective at the start of SFY 2003.

<sup>27</sup> Beginning July 1, 2003 and ending June 30, 2004.

<sup>28</sup> Officially (NRS 702.100), "Universal Energy Charge" means the charge imposed pursuant to NRS 702.170.

<sup>29</sup> Officially (NRS 702.040), "Fund" means the Fund for Energy Assistance and Conservation created by NRS 702.250.

**B. SFY 2004 as the Second Program Year**

Since Nevada Revised Statutes 702 anticipated that the Welfare Division program would go into effect beginning with State Fiscal Year 2003, the perspective in the Evaluation is that State Fiscal Year 2003 was the first program year.<sup>30</sup> Thus, SFY 2004 is the second program year, and SFY 2005 will be the third.

Past	Evaluation Window	Future
<b>SFY 2003</b> Program Year	<b>SFY 2004</b> Program Year	<b>---&gt; Future</b> SFY 2005 and Beyond

Figure 6: Evaluation Window.

**C. Collections (Public Utilities Commission of Nevada)**

The Public Utilities Commission of Nevada (PUCN) is the locus of oversight responsibilities for regulated Nevada utilities. The agency has both investigative and enforcement powers. Commission responsibilities for the UEC include collection, refunds in accordance with legislative provisions,<sup>31</sup> and investigation of collections matters and enforcement of collections matters to the extent necessary. Collections have proceeded smoothly. There has been no occasion for exercise of the Commission’s investigative or enforcement powers through the close of SFY 2004.

The Commission transfers funds to the Fund for Energy Assistance and Conservation (FEAC) which is administered by the Welfare Division. The Welfare Division accounting function then transfers funds to the Housing Division.

<b>Universal Energy Charge (UEC)</b>			
Line	Item	SFY 2003	SFY 2004
		(\$)	(\$)
1	UEC Receipts (Public Service Commission)	10,653,628	11,219,024
2	Cost of Administration (Public Utilities Commission)	(105,704)	(102,883)
3	Net UEC for transfer to Welfare Division	10,547,924	11,116,141

Table 4: Top-Level Fiscal Perspective – Universal Energy Charge.

30 SFY 2003 was the first full program year.

31 Refunds, as directed by the Commission and carried out by the Accounting section of the Welfare Division.

The lines of Table 4 are explained below:<sup>32</sup>

**Line 1: UEC Receipts.** This is the total collected by the Commission for each fiscal year. As energy use increased from SFY 2003 to SFY 2004, the UEC shows an increase in dollar amount in SFY 2004. According to the Commission staff projections, UEC collections will trend upwards at about 2% per year. Actual collections will vary from year to year around this trend, but can be expected to follow Nevada’s upward trend in energy use, partly a reflection of increases in population.

**Line 2: Cost of Administration (Public Utility Commission).** The cost of Public Utilities Commission administration of the UEC is capped at 3% of UEC receipts. Monies within this authorization that are not spent for PUCN Administration flow through to the FEAC. Looking forward, the necessary percentage is likely to decrease as energy use in Nevada increases.

**Line 3: Net UEC for Transfer to Welfare Division.** This is the yearly net amount transferred to the Fund for Energy Assistance and Conservation (not adjusted to account for UEC Refunds).

***D. The Fund for Energy Assistance & Conservation***

A “top level” view of the Fund for Energy Assistance & Conservation (FEAC) is shown in Table 5.

<b>Fund for Energy Assistance &amp; Conservation</b> [New Funds]			
Line	Item	SFY 2003	SFY 2004
		(\$)	(\$)
4	Net addition from UEC (from line 3)	10,547,924	11,116,141
5	Treasurer’s Interest Distribution	159,130	218,826
6	Refunds (as directed by PUCN)		(2,558)
7	Note: Line 6 is paid from Welfare 6031 Account.		
8	Net New Funding for Fiscal Year	10,707,054	11,332,409

**Table 5: Top-Level Fiscal Perspective - New Funds (FEAC).**

The line items for Table 5 are explained below:

<sup>32</sup> Data for Table 4 was provided from reports developed by Harry Butz of the Public Utilities Commission.

**Line 4: Net Addition from UEC.** The amount is the same as in Line 3, representing the net amount of UEC collections minus Commission administration transferred to the FEAC in each fiscal year.

**Line 5: Treasurer’s Interest Distribution.** This is the new money each year developed as interest on the FEAC account.<sup>33</sup>

**Line 6: Refunds.** Refunds are applied by the Welfare Division Accounting Section at the direction of the Commission.

**Line 8: Net New Funding for Fiscal Year.** This is the sum of the new money from all sources for the fiscal year.

Carry over funds are shown in Table 6.

<b>Fund for Energy Assistance &amp; Conservation [Carry Over Funds]</b>			
Line	Item	SFY 2003	SFY 2004
		(\$)	(\$)
9	SFY 2003 Funding, Carried Forward to SFY 2004		4,880,122
10	SFY 2002 Funding, Carried Forward	4,773,928	4,773,928
11	Total Carried Forward	4,773,928	9,654,050

**Table 6: Top-Level Fiscal Perspective - Funds Carried Forward (FEAC).**

Line items for Table 6 are explained below:

**Line 9: SFY 2003 Funding, Carried Forward to SFY 2004.** A new program with the complexity of the UEC generally takes about three to five years to become fully functional. In the initial years, there is typically a substantial carry over of funds to subsequent fiscal years. Also, once the programs are mature, they will continue to show a small carry over each year, serving as a contingency reserve. This line shows the carry over of SFY 2003 Funding into SFY 2004.<sup>34</sup>

<sup>33</sup> Interest (line 7) is from Budget Status Reports, Office of the State Controller, Budget Account 6031 for Fiscal Year 2003 and Fiscal Year 2004, as run January 21, 2005.

<sup>34</sup> Source: Budget Status Report, Office of the State Controller, Budget Account 6031 for Fiscal Year 2004, as run January 21, 2005 (\$4,802,394) reduced by PUC Administration and UEC Refunds (from Table 1, above).

**Line 10, SFY 2002 Funding, Carried Forward.** This line shows funds originating in SFY 2002, carried forward to SFY 2003.<sup>35</sup> We then also show this amount continued forward into SFY 2004.

**Line 11, Total Carried Forward.** This is the total of funds from prior years carried forward into SFY 2003 and SFY 2004.

<b>Fund for Energy Assistance &amp; Conservation</b> [Funds Available]			
Line	Item	SFY 2003	SFY 2004
		(\$)	(\$)
12	Net New Funding for Fiscal Year (from line 8)	10,707,054	11,332,409
13	Total Carried Forward (from line 11)	4,773,928	9,654,050
14	FEAC (Available for Fiscal Year)	15,480,982	20,986,459

**Table 7: Top-Level Fiscal Perspective - Total Funds Available.**

Line items for Table 7 are explained below:

**Line 12, Net New Funding.** This is the new funding from line 8.

**Line 13, Total Carried Forward.** This is the carry forward, from line 11.

**Line 14: Available for Fiscal Year.** This is the effective budget for the fiscal year, including funds from all sources.

### ***E. The Programs (Welfare Division & Housing Division)***

The Welfare Division operates the energy assistance (payment assistance) program and the Housing Division operates the weatherization assistance program. The Divisions coordinate efforts in several ways but separately operate the two programs.

Expenditure against effective budget for the overall effort is shown in Table 8.

<sup>35</sup> Source: The carry over of \$4,773,928 is reported in Peach, H. Gil, Anne West, Ryan Miller, Ayala Cnaan & Luisa Freeman, *State Fiscal Year 2003 Evaluation of the NRS 702 Energy Assistance Program & Weatherization Assistance Program*, Table 2, Line 9, on Page V-3. The original source is Budget Status Report, Office of the State Controller, Budget Account 6031 for Fiscal Year 2002, as run June 25, 2004.

<b>Fund for Energy Assistance and Conservation</b> [Funds Expended]			
Line	Item	SFY 2003	SFY 2004
		(\$)	(\$)
15	FEAC (Available for Fiscal Year)	15,480,193	20,986,459
16	Expended	6,322,571	7,051,004
17	Percentage Expended	41%	34%

**Table 8: Fund Plan, Budget, Expenditure.**

Line items for Table 8 are explained below:

**Line 15: Available for Fiscal Year.** This is the total of funds available.

**Line 16: Expended.** Funds expended over the fiscal year.

**Line 17: Expended as Compared to Effective Budget.** Amount expended divided by amount available, expressed as a percentage.

Welfare Division expenditures for SFY 2004 are summarized in Table 9.

<b>Rate of Expenditure: Welfare Division</b>					
Line	Item	SFY 2003		SFY 2004	
		(\$)	(%)	(\$)	(%)
18	Available to Welfare Division	8,030,291		8,499,307	
19	Carried Forward from Previous Year	4,773,928		9,411,895	
20	Effective Budget for Fiscal Year	12,804,219	100%	17,911,202	100%
21	Carried Forward from SFY 2004 to SFY 2005			14,212,836	
22	Expended	3,392,324	26%	3,698,365	21%

**Table 9: Rate of Expenditure (Welfare Division).**

Line items for Table 9 are explained below:

**Line 18: Available to Welfare Division.** New funds available to the Welfare Division for the payment assistance program for the fiscal year.

**Line 19: Carried Forward from Previous Year(s).** Payment assistance funds carried forward.

**Line 20: Effective Budget.** Total available (payment assistance program).

**Line 21: Carried Forward to SFY 2005.** The amount carried to SFY 2005.

**Line 22: Expended.** Energy assistance (payment assistance) program amount expended.

Generally programs of this size and complexity take three years for the necessary support systems to be completely in place and five years to become fully functional. If this rule of thumb holds true, the required support systems will be fully functional in SFY 2005 and expenditure will match effective budgets in SFY 2006 or SFY 2007.

Housing Division expenditures are summarized in Table 10.

<b>Rate of Expenditure: Housing Division</b>					
Line	Item	SFY 2003		SFY 2004	
		(\$)	(%)	(\$)	(%)
23	Allocated to Housing Division	2,676,763		2,833,102	
24	Carried Forward from Previous Year	1,709,947		1,456,463	
25	Effective Budget for Fiscal Year	4,386,711	100%	4,289,565	100%
26	Carried Forward from SFY 2004 to SFY 2005			1,032,388	
27	Expended	2,930,247	67%	3,352,637	78%

**Table 10: Rate of Expenditure (Housing Division).**

Line items for Table 10 are explained below:

**Line 23: Available to Housing Division.** New funds available to the Housing Division for weatherization assistance program for the fiscal year.

**Line 24: Carry Forward from Previous Year(s).** Funds carried forward.

**Line 25: Effective Budget.** This is the total budget available for the weatherization assistance program for the fiscal year.

**Line 26: Carry Over.** The total amount carried forward from SFY 2004 to SFY 2005 for weatherization assistance. Part of this amount is a reserve.

**Line 27: Expended.** The total expended for the weatherization assistance program in each fiscal year.

Major Line Items are shown in Table 11. Note that administration of collections by the Public Utility Commission is reported separately in Table 4, above, and is not included in Table 11.

**Line 28: Welfare Administration.** In the Nevada legislation, program administration was capped at three percent of the 75% Welfare Division allocation (or 2.25 percent of overall budget).

**Line 29: Client Payments.** This is the amount applied to direct energy payments.

**Lines 30-32:** An innovation that the legislature placed into the program design is shown Lines 30-32. Outreach, Program Design (of which the major component is computer support), and Evaluation were not capped.<sup>36</sup>

<b>Fund for Energy Assistance &amp; Conservation [Administration &amp; Major Line Items]</b>			
Col. 1	Col. 2	Col. 4	Col. 4
Line	Item	SFY 2003 (\$)	SFY 2004 (\$)
28	Administration - Welfare Division	101,475	152,035
29	Client Payments	2,967,640	3,350,212
30	Outreach	65,018	154,110
31	Program Design	242,156	0
32	Evaluation	16,035	42,010
33	Subtotal (Welfare Division)	3,392,324	3,698,367
34	Administration - Housing Division	106,941	112,338
35	Housing Improvements, Weatherization, Energy Efficiency (Subgrantees)	2,772,464	3,072,121
36	Outreach	1,112	34,621
37	Program Design	27,456	73,653
38	Evaluation	22,274	59,904
39	Subtotal (Housing Division)	2,930,247	3,352,637
40	Total (Fiscal Year)	6,322,571	7,051,004
Note: Amounts shown in this table were provided by the Housing and Welfare Divisions.			

**Table 11: FEAC – Major Line Items.**

**Line 33: Subtotal (Welfare Division):** The subtotals for the Welfare Division are developed from the individual category amounts (Lines 28-32) provided by the Welfare Division for SFY 2003 and SFY 2004. These subtotals also match the DAWN system records for these fiscal years.

<sup>36</sup> This evaluation recommends moving the PUC administration outside the program administration cap, and then increasing the program administration cap (see recommendations at the end of this section). However, leaving outreach, program design, and evaluation outside the administrative cap is an innovation other states might do well to consider as then move to implement similar Universal Energy programs.

**Line 34: Housing Administration.** Housing Division administration is limited to six percent of the 25% Housing Division allocation (or 1.5 percent of overall budget).<sup>37</sup>

**Line 35: Direct Services.** This line shows the amount used for direct installations and closely related services.

**Lines 36-38:** As with the Welfare Division, for the Housing Division an innovation that the legislature placed into the program design is shown Lines 30-32. Outreach, Program Design (of which the major component is computer support), and Evaluation were not capped.

**Lines 39: Subtotal (Housing Division):** The subtotals shown in Line 39 are developed from the individual category amounts (Lines 34-38) as provided by the Housing Division. According to the DAWN system, expenditures were \$164,861 less than shown in Line 39 for the Housing Division in SFY 2003 and \$95,460 less in SFY 2004. These discrepancies between Housing Division accounting records and the DAWN system are not large enough to have any effect on the evaluation findings. For evaluation purposes we will use the Division figures, and we will try to trace the origin of these kinds of differences in the next evaluation.

As shown in Table 12, the required allocation of 75% to the Welfare Division effort and 25% to the Housing Division effort was maintained for the new funding developed for SFY 2004.<sup>38</sup>

<b>Fund for Energy Assistance and Conservation</b>					
<b>Allocation to Divisions</b>					
Line	Item	SFY 2003		SFY 2004	
		(\$)	(%)	(\$)	(%)
48	FEAC (Net New Fiscal Year Funding)	10,707,054	100%	11,332,409	100%
49	Available to Welfare Division	8,029,502	75%	8,498,667	75%
50	Available to Housing Division	2,676,763	25%	2,831,649	25%

**Table 12: Allocation to Divisions.**

<sup>37</sup> The caps are specified in NRS 702.260(1): "Seventy-five percent 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. The Welfare Division may use not more than 3 percent of the money distributed to it pursuant to this section for its administrative expenses." Also, NRS 702.270(1): "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. The Housing Division may use not more than 6 percent of the money distributed to it pursuant to this section for its administrative expenses." For this evaluation, we interpret funds distributed to be the effective budget rather than funds expended.

<sup>38</sup> The proportions are specified in NRS 702.260(1) and NRS 702.270(1).

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## **F. Discussion**

There is substantial carry forward from prior years (SFY 2002 and SFY 2003) into SFY 2004. And there is again a substantial carry over at the end of SFY 2004 into SFY 2005. However, moving forward, there appears to be no problem in seeing that effective budgets will be fully expended in the following fiscal years.

It is likely that the Housing Division will reach this point in SFY 2005 and the Welfare Division in SFY 2006 or SFY 2007. Until full expenditure is reached, there will be a need to continue the current communication and marketing emphasis. When it is reached, communication and marketing will have to be modified.

Looking ahead, as near-full expenditure occurs; control tools will need to be introduced to increasingly target funds within eligible households. Such tools have been envisioned in the program legislation (NRS 702.260) which includes priorities to follow when funds must be allocated among eligible households.<sup>39</sup>

Since funding is keyed to the use of energy in Nevada, funding will grow year by year. However, by SFY 2006 or SFY 2007, the legislature will need to review the program to look at increasing the overall funding level in relation to need.

## **G. Summary**

1. In SFY 2004, the collection process continues to run smoothly.
2. Funds continue to be allocated according to the 75% Welfare Division and 25% Housing Division formula established in NRS 702.260(1) and NRS 702.270(1).
3. The rate of expenditure against the effective budget is down a bit, from about 41% in SFY 2003 to 34% in SFY 2004 (Table 8), representing the carry over of SFY 2002 and SFY 2003 dollars into SFY 2004.
4. Based on the record of activity through SFY 2004 and plans for SFY 2005, the Housing Division is at full expenditure and is reducing the carry forward at a controlled rate. The Welfare Division will reach near-full expenditure in SFY 2006 or SFY 2007. This pattern is normal for major new programs in that as a

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<sup>39</sup> According to NRS 702.260(6)(a), The Welfare Division... "[s]hall, to the extent practicable, determine the amount of assistance that the household will receive by determining the amount of assistance that is 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. Beyond this, in NRS 702.260(6)(b) the Welfare Division ... [m]ay adjust the amount of assistance that the household will receive based upon such factors as: (1) The income of the household; (2) The size of the household; (3) The type of energy that the household uses; and (4) Any other factor which, in the determination of the Welfare Division, may make the household particularly vulnerable to increases in the cost of natural gas or electricity.

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rule of thumb it takes about three years to get necessary infrastructure in place (for example, computer support and required staffing) and about five years to achieve fully operational programs.

### **H. Recommendations**

Three recommendations are continued from the SFY 2003 evaluation.<sup>40</sup>

1. With regard to administrative costs, the SFY 2003 Evaluation contains a recommendation to treat the Public Utilities Commission administrative costs outside the administrative costs of the Fund for Energy Assistance and Conservation budget. This is because the Commission responsibilities are for collecting and accounting funds, not for program. While PUC administrative costs for the UEC are true administrative costs, they are administrative costs for the project of collecting funds and, logically, should not be included in the administrative costs of the program. Program administrative costs should be limited to the administrative cost of payment assistance and weatherization assistance.
2. In addition, it is recommended to raise the overall administrative cap for program (including Welfare Division, Housing Division, and Governor's Office) to 10% as a "best practice" consistent with the parallel federal program and in relation to other states.
3. For the SFY 2004 evaluation we also reaffirm the SFY 2003 Evaluation recommendation that the Welfare Division Accounting section and the Commission Staff responsible for the collection function re-establish the quarterly "true-up" meetings that existed at the start of the UEC collections, and continue to meet quarterly.

There are no new recommendations in this area for the SFY 2004 evaluation.

Activity in the fiscal area is proceeding regularly and as expected. If eligibility levels are maintained, the legislature should review funding in relation to need in SFY 2006 or SFY 2007 when the program is fully operational and targets are fully met.

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<sup>40</sup> Peach, H. Gil, Anne West, Ryan Miller, Ayala Cnaan & Luisa Freeman, *State Fiscal Year 2003 Evaluation of the NRS 702 Energy Assistance Program & Weatherization Assistance Program*, Pp. VIII-1 through VIII-5.

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## VI. THE WEATHERIZATION ASSISTANCE PROGRAM

### A. Subgrantees and Service Territories

The Housing Division administers the Weatherization Assistance Program through four subgrantee agencies. Each covers a specific area of the state. Subgrantees are the community based organizations (CBOs) or county or municipal public entities that determine eligibility for programs and perform the weatherization work itself.

The Housing Division published a Request for Proposals in November 2003 looking for another weatherization contractor to pick up some of the work in northern Las Vegas. No additional weatherization providers decided to participate.<sup>41</sup> Therefore, during SFY 2004, there were no changes in Subgrantees providing weatherization services; the same four Subgrantees providing services in SFY 2003 provided services in 2004. There were no changes in the territory served by each of the agencies.

During SFY 2004 as in SFY 2003, there was a \$4,000 cap on FEAC (UEC) funds and no cap on the amount of DOE funds that could be expended per home to complete the weatherization work.<sup>42</sup> The average weatherization expenditure was \$1,869.<sup>43</sup> There were 60 installations with costs greater than \$6,000, with the most costly at \$12,886. Installations over \$6,000 included a funding source other than FEAC funding. These often included equipment replacement or repair and/or home repair costs necessary before weatherization could take place.

There was no change from SFY 2003 to SFY 2004 in the measure installation “priority list” used by the Subgrantees to determine the order of cost-effective measure installation.

Housing is the only agency in the State of Nevada that provides emergency replacement of failed heating and cooling equipment to the resident. Other agencies would require the resident take out a loan to replace equipment, and *could not act in*

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<sup>41</sup> As discussed in the SFY 2003 Evaluation, Nevada housing markets are undergoing rapid expansion. Expansion creates opportunities and draws resources to new construction work. Weatherization is typically a community service specialty and business opportunities and pay scales are traditionally higher in new housing construction. Those with retrofit skills and experience can move between sectors. This effect is particularly strong during a building boom when skilled personnel are in short supply and builders are looking for people with housing experience.

<sup>42</sup> In SFY 2005 an expenditure cap of \$6,000 was imposed on homes using both FEAC and DOE funds. The cap on FEAC funding has been \$4,000 since SFY 2003.

<sup>43</sup> This number is a average of 100% of program operations expenditures plus one half of health and safety expenditures. This calculation follows the model prescribed by DOE Grant Guidance. Cost to the Subgrantee would be slightly different.

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*time to insure health and safety.* Loans, if available, are typically not taken out by low income households because of the resident's financial situation. So, without the Housing Division emergency replacement, heating or cooling equipment is not replaced.

### 1. *HELP of Southern Nevada*

HELP (not an acronym) of Southern Nevada serves the Las Vegas area. HELP has been an active community outreach agency for over 30 years and assists about 65,000 people each year. HELP is an umbrella organization that links individuals to support services and operates a number of programs. These programs include energy resource services, weatherization, rental assistance, utility assistance, food, referrals to senior programs, legal guardians of grandchildren, and youth summer food program. A displaced homemaker program assists men or women of spouses or significant others about to lose assistance. Assistance is provided with job seeking, resumes, and stabilizing family domestic violence. The common theme among programs is to promote self sufficiency and to provide short-term assistance. There has been an Agency-wide drop in funding as the need for services in southern Nevada has ballooned. Explosive growth in need has been occurring in a depressed economy.

During SFY 2004 HELP continued to install weatherization with its employee crews. The weatherization staff was based in a large warehouse, where vehicles, assessment and weatherization equipment, and files were stored. Weatherization operations offices were also based in this warehouse. A Special Projects Manager took over operations in mid SFY 2004, improving moral and operations efficiencies. He also improved the forms taken to the field and developed the Weather-Eyes software database.

At this time there was large staff turnover and reorganization in the weatherization crew followed. One outside contractor assisted with installations in SFY 2004; he also contracted with Neighborhood Services and RNDC.

AS SFY 2004 ended and SFY 2005 began, HELP was using both agency crew and outside installation contractors. The employee crew has been reduced to four technicians. This internal staff continues to conduct the initial home assessment prior to weatherization, and inspections after weatherization. They also do installations.

In any given month, there can be up to 65 homes ready for assessment and 50 waiting for applicants to send in missing documentation. HELP continues to stabilize and improve its operations and delivery procedures.

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## 2. *Community Service Agency (CSA)*

The Community Service Agency and Development Corporation (CSA) was one of the first two agencies to provide services to State of Nevada Housing Division to weatherize homes with FEAC funds during the SFY 2002 ramp-up year. CSA weatherizes homes with UEC funding within about a 200 mile radius of Reno. The seven counties served in SFY 2004 included Storey, Carson, Mineral, Washoe, Lyon, Churchill, and Douglas. Some Indian reservations are also within the service area.

During SFY 2004, a new Weatherization Program Manager was hired. Since the initial SFY 2003 ramp-up, the work flow and process stabilized and staff was reduced from nine to five. The staff included the Weatherization Manager and support staff. On an average week, there were 75-100 customers on the Agency's waiting list for Weatherization. Depending on when the customer supplied the necessary documentation for participation, the wait time has been approximately two months. One weatherization contractor continued to provide services for CSA for SFY 2004.

## 3. *City of Henderson Neighborhood Services (NS)*

The City of Henderson lies just outside of Las Vegas. The City of Henderson Neighborhood Services Division (NS) is operated under the City Manager's office. The Neighborhood Services Division offers outreach services and has four Divisions in addition to Affordable Housing Programs. These are the Neighborhood Programs, Neighborhood Enhancement, Grants (such as Community Development Block Grants) and Rebuild America.

For most of SFY 2004, Neighborhood Services had one installation contractor to handle all their work. This contractor also provided services for HELP and RNDC. A second contractor was initially hired but not retained because they did not meet quality standards. However, by the end of SFY 2004 a second new contractor was hired. Neighborhood Services is currently looking for a third new contractor so to shorten the wait for weatherization services.<sup>44</sup>

An assistant was hired In February 2004 to handle the office duties for the Housing Specialist, who was covering both office and field work. While workload stabilized for NS during SFY 2004, City of Henderson Neighborhood Services continued in a 'ramp-up' mode.

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<sup>44</sup> The second contractor does not currently have a license to work on mobile homes, and since the original contractor is serving three agencies and installing measures at all the mobile homes, there is a longer wait for completed work.

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With one installation contractor and Housing Specialist to handle all the work, there was little time to fine tune all the processes and not every installation was inspected. An inspection contractor was brought in to handle some of that work. With the addition of the office assistant, now procedures are becoming streamlined. However, in September 2004 the Housing Specialist left Neighborhood Services and the assistant has taken over his duties in the field and in the office. RHA, the monitoring subcontractor, provided inspection training for the new Housing Specialist.

Neighborhood Services continues to improve program operations efficiency in both the office and with contractors. For example, the weatherization priority list is now given to weatherization participants when applications are taken. This has improved client education and cut down on the number of phone calls to the office. Participants better understand which measures they will get and why, and do not have to call the office with questions. Improvements have also been made to participant file organization and contents, including a printout of driving instructions from the NS office to the home.

Applications continue to be completed at the participant's home, where required documentation is copied<sup>45</sup>, client education is delivered in person, and the home is visually assessed.

At the time of this report, the only waiting lists for weatherization are homes over 150% federal poverty level that qualify for Gap funding. At this time, Gap funding is exhausted and new funding is pending but has not arrived.

#### *4. Rural Nevada Development Corporation (RNDC)*

The Rural Nevada Development Corporation (RNDC) provides services to the largest geographic area with the sparsest population. The RNDC office is located in Ely in White Pine County. RNDC provided services in nine counties in SFY 2004, including White Pine County and Lincoln Counties on the eastern border, Eureka, Pershing, Nye and Lander Counties in central Nevada, Humboldt and Elko Counties on the northern Nevada border, and Esmeralda County on the California border.

RNDC added a part time office assistant in SFY 2004. Prior to that, the Housing Assistant managed work coordination with contractors, field inspections, and office duties. During SFY 2003, only one installation contractor worked with RNDC. A second contractor came on in June 2003, and a third in August 2003, who handled central and southern Nevada installations. For most of SFY 2004, RNDC had three contractors and workload stabilized through SFY 2004 and into SFY 2005.

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<sup>45</sup> The home visit includes taking a lightweight copier to the client's home so that no income eligibility documentation leaves the home. Clients appreciate this, a technical innovation that would not have been possible in prior weatherization programs, and clients appreciate the face-to-face contact.

Applications are necessarily taken over the phone rather than through home visits due to the large territory RNDC serves. Word of the weatherization services has gotten out, and since December 2003 the workload has picked up.

RNDC has no difficulty identifying potential installation sites, but the problem is in making it possible to do the necessary work for rural homes. The challenge is finding the right mix of funds to leverage since repairs many be necessary before installations can be made and installations are expensive in this rural area. In many cases only DOE funding is available. Wells Rural Electric and Mount Wheeler Power have contributed weatherization funds.

**B. Installation Summary**

The following two tables summarize the SFY 2004 installations by Weatherization Provider (Subgrantee).

<b>Number of Homes Weatherized by Weatherization Provider (DOE and FEAC Funds) SFY 2004</b>				
<b>CSA</b>	<b>HELP</b>	<b>NS</b>	<b>RNDC</b>	<b>Total</b>
536	686	162	143	1527

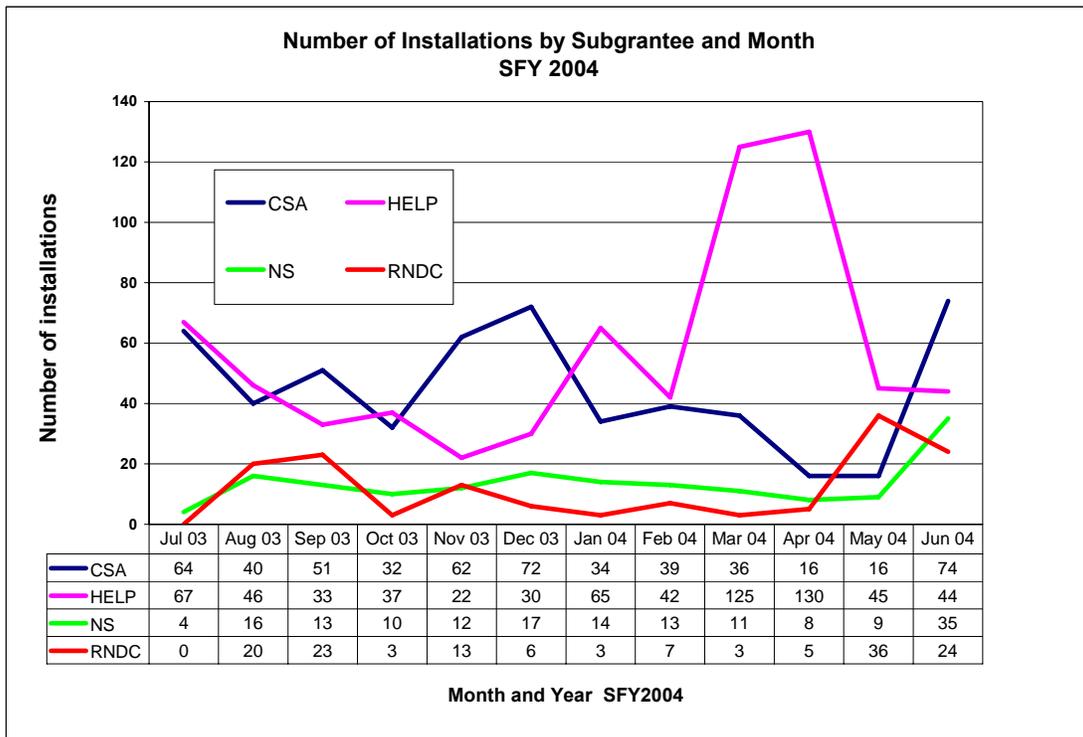
**Table 13: Homes Weatherized (by Subgrantee).**

<b>Number of Homes Weatherized by Weatherization Provider and Housing Type (DOE and FEAC Funds) SFY 2004</b>										
<b>Housing Type</b>	<b>CSA</b>		<b>HELP</b>		<b>NS</b>		<b>RNDC</b>		<b>Total</b>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
<b>2-4 Family</b>	48	9.0%	15	2.2%	10	6.2%	57	39.9%	130	8.5%
<b>5+ Family</b>	158	29.5%	370	53.9%	93	57.4%	11	7.7%	632	41.4%
<b>Mobile Home</b>	204	38.1%	168	24.5%	20	12.3%	46	32.2%	438	28.7%
<b>Single Family</b>	126	23.5%	133	19.4%	39	24.1%	29	20.3%	327	21.4%
<b>Total</b>	536	100%	686	100%	162	100%	143	100%	1527	100%

**Table 14: Types of Homes Weatherized (by Subgrantee).**

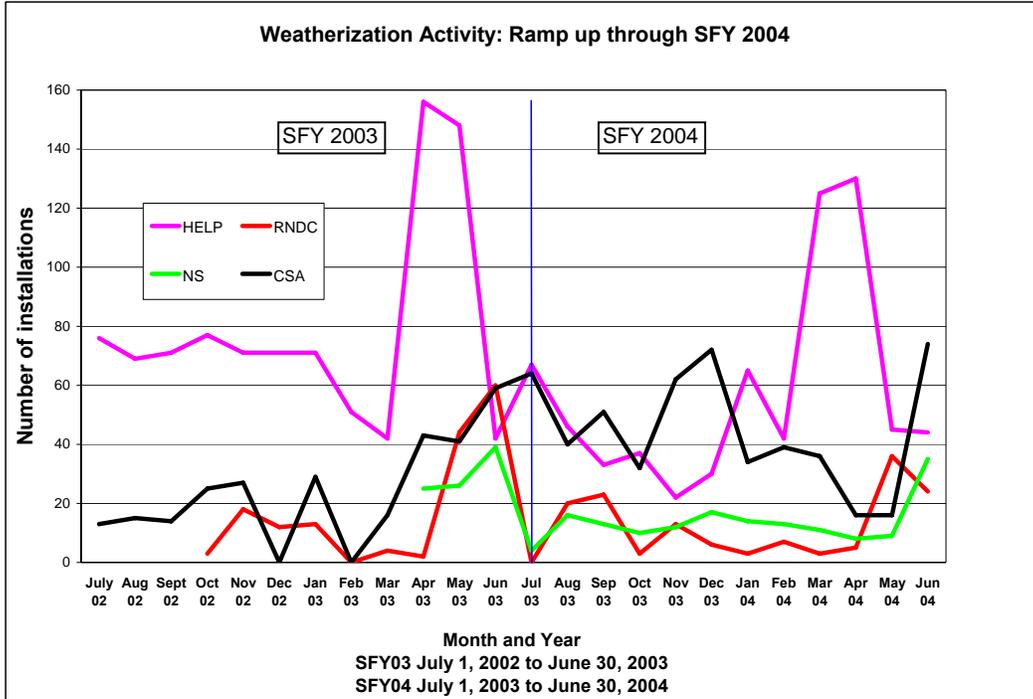
Table 13 shows the overall number of installations and Table 14 shows installations by housing type.

Installation activity for each of the four subgrantees, month by month for SFY 2004 is shown in Figure 7. As can be seen in the figure, CSA and HELP show fluctuation in the number of installations each month, while NS and RNDC show a nearly constant and smaller workload.



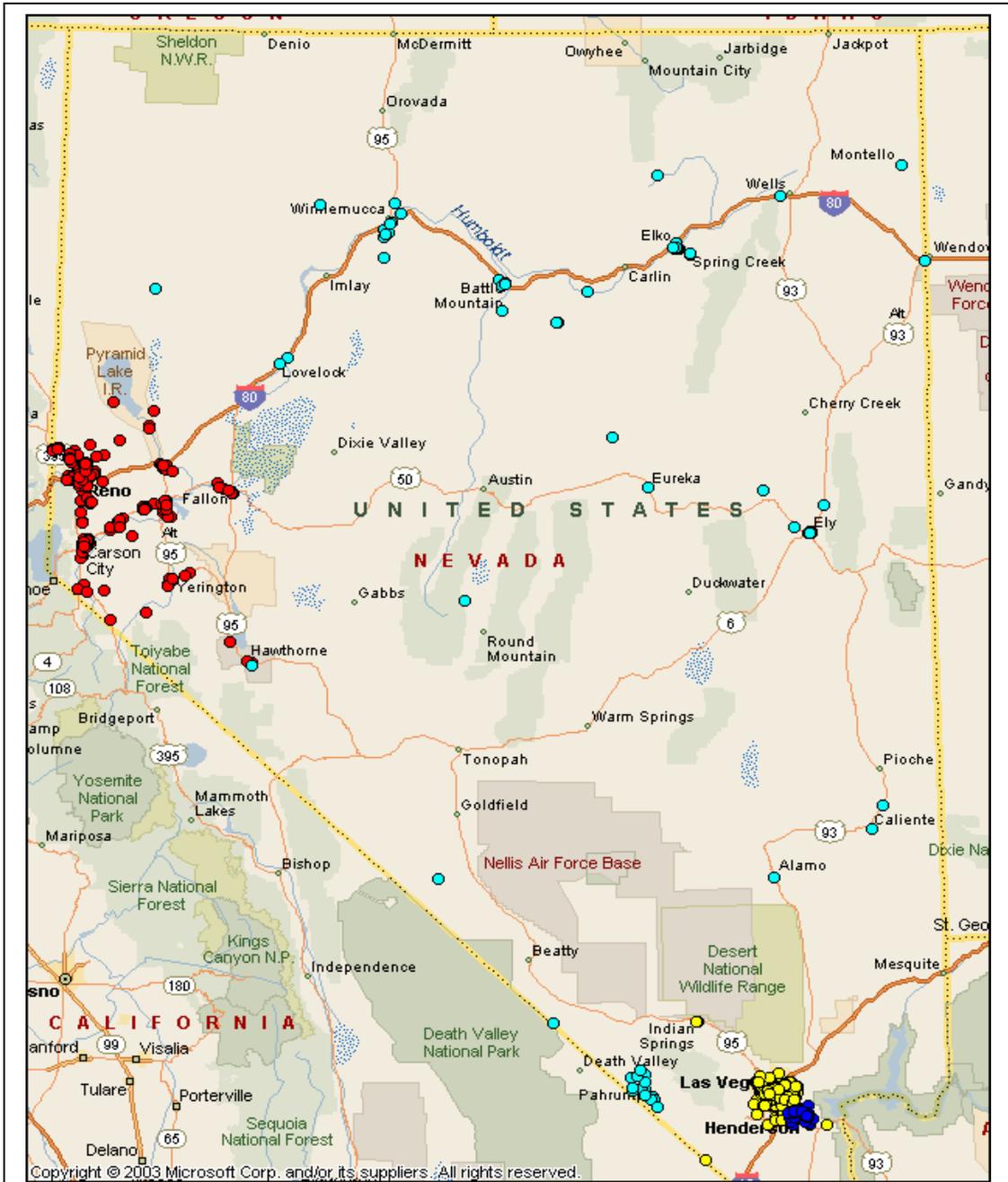
**Figure 7: Month by Month Installations, SFY 2004.**

Figure 8 provides a longer view of installation activity through the SFY 2003 ramp up and then through the end of SFY 2004. In this graph all agencies show year-end spikes. Both RNDC and NS look like they have stabilized the work load after ramp up and through SFY 2004. HELP shows a higher workload and a pattern of increased installations as the end of the fiscal year nears, for both SFY 2003 and SFY 2004.



**Figure 8: Two Cycles of Weatherization (SFY 2003 & SFY 2004).**

Figure 9 is a map showing SFY 2004 installations for each subgrantee. RND completed a number in the Pahrump area on the southwestern border where few were completed there last fiscal year. While a few more installations were completed mid-state, this area has low installation activity.



**[Both FEAC and DOE Funding]**

**RNDC - Light Blue**  
**CSA - Red**

**NS - Dark Blue**  
**HELP - Yellow**

**Figure 9: Weatherization Assistance Program Installations**

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### **C. Contractor Training**

In SFY 2004, one subcontractor, Richard Heath & Associates, Inc. (RHA), was hired to provide all weatherization training, and to provide inspection and monitoring services. One person from RHA conducted the training for all Subgrantees.

Basic weatherization training, blower door training and Combustion Appliance Safety Training (CAS) were provided in both northern and southern Nevada in SFY 2004. In SFY 2003, basic weatherization training had been conducted in Stockton, CA. In response to requests by Subgrantees, the Housing Division changed the training to occur in Nevada, and to be taught by only one person. In checking with the Subgrantees, the evaluators were told by each one that they were happy with the training programs being held in their territories, training that is with their actual housing stock and climate conditions.

In addition, an assessor-inspector training component was developed and added to the training curriculum in SFY 2004. Two assessor-inspector training sessions were held, one in Las Vegas and the one in Reno with positive feedback from participants.

In late SFY 2004, RHA began conducting monitoring inspections for the Housing Division. Ten percent (10%) of all installations are inspected in the field and the files are reviewed for completion and accuracy. In SFY 2003, Housing Division staff conducted the field monitoring of 10% of the installations.

### **D. Utility Help**

Two major Nevada utilities, Sierra Pacific Power Company and Nevada Power are assisting the Nevada UEC program effort by providing some funds for assisting with training of Subgrantee agencies and developing education materials. These utilities also provide DSM weatherization funding for customers above 150% of poverty but below 60% of state median income. The utilities are mandated to support program effectiveness and efficiency by the Public Utility Commission.

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## ***E. Formal and Informal Compliance***

**Finding: The UEC Weatherization Assistance Program (UEC WAP) program is in compliance with subsections 3<sup>46</sup> and 6<sup>47</sup> NRS 702.270, the relevant sections related to formal compliance.**

The Housing Division is mandated to comply with certain codes regarding the weatherization program as stated in NRS 702. Below are some of the relevant passages from the code and a description of how Housing implemented these requirements or did not when it was unfeasible.

### *1. Specific Provisions*

#### **(1) 6(a) Solicit advice from Welfare and other knowledgeable persons**

Ongoing outreach was discussed by a nine member Outreach Advisory Committee established in September 2003 (SFY 04). The Committee included one person each from Housing, Sprint, PUC, HELP, CSA, Welfare, and three utility representatives. The Committee was formed to discuss marketing efforts and decided to hire a marketing firm to conduct statewide outreach. In the meantime, 40,000 flyers were distributed by a number of food closets in early 2004. By June 2004, Housing had received about 200 inquiries by clients receiving the flyers.

#### **(2) 6(c). Use the same simplified application form**

No application forms are used in common with Welfare. As reported in the SFY 2003 evaluation, a working group consisting of both Housing and Welfare management

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<sup>46</sup> NRS 702,270 (3): Except as otherwise provided in subsection 4, to be eligible to receive assistance from the Housing Division pursuant to this section, a household must have a household income that is not more than 150 percent of the federally designated level signifying poverty, as determined by the Housing Division.

<sup>47</sup> NRS 702,270 (6): In carrying out the provisions of this section, the Housing Division shall: (a) Solicit advice from the Welfare Division and from other knowledgeable persons; (b) Identify and implement appropriate delivery systems to distribute money from the Fund and to provide other assistance pursuant to this section; (c) Coordinate with other federal, state and local agencies that provide energy assistance or conservation services to low-income persons and, to the extent allowed by federal law and to the extent practicable, use the same simplified application forms as those other agencies; (d) Encourage other persons to provide resources and services, including, to the extent practicable, schools and programs that provide training in the building trades and apprenticeship programs; (e) Establish a process for evaluating the programs conducted pursuant to this section; (f) Develop a process for making changes to such programs; and (g) Engage in annual planning and evaluation processes with the Welfare Division as required by NRS 702.280. (Added to NRS by 2001, 3235)

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tried to streamline the application so that both agencies could use a common form. The two agencies have different data collection needs and the joint form became too long. The agencies decided to continue using their own forms.<sup>48</sup>

**(3) 6(c). Coordinate with other agencies that provide energy assistance...**

In SFY 2003, referrals were made by Welfare to Housing by monthly downloads of client information with a Fixed Annual Credit of \$600 or more. In February or March, SFY 2004, the download minimum Fixed Annual Credit dropped to \$120 since these households also may require weatherization assistance. This is the minimum Fixed Annual Credit that Welfare awards. At the same time this change was made, Welfare began downloading records for all recipients receiving assistance to Housing. Welfare sent a total of 6,777 customer records to Housing in SFY 2004.

Housing can prioritize the list to customize postcards sent to recruit clients, with the intent to capture leads for the subgrantees. For example, no postcards were sent to customers in CSA service territory since they had a backlog. On the other hand, RNDC had underserved counties, and postcards along with applications were sent to Food Closets to generate leads. About 100 postcards were sent to potential clients in the HELP service territory every other week.

Daily emails of clients with FAC \$2,500 or more are sent to Housing for immediate follow-up.<sup>49</sup> In SFY 2004, 40 referrals were made to Housing. Of these, 14 did not respond to contact, 8 were pending responses from customers, 13 were weatherized or have weatherization in progress, and 5 refused weatherization.

The Housing Division continues to coordinate with Sierra Pacific which provides "GAP" funding to treat homes up to 60% of area median income, which is about 200% of Federal Poverty Level. This Gap funding provides a 'safety net' and is available to weatherize homes between 150%-200% of FPL which would otherwise go untreated. The other UEC utilities are not currently providing this GAP funding, so this coverage is available only in Sierra Pacific and Nevada Power service territory.

Additional utility DSM funding has helped toward client education curriculum. A portion of the funding for crew training and manuals came from DSM funds.

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48 Housing has identified a software program "DirectApps" that could be used by Welfare and Housing for common applications. This would require an initial investment of \$80-100,000 to purchase and modify the application for use, plus the cost to incorporate the application into both Welfare and Housing systems. The initial application would be taken at any point of contact and this system would forward income qualified applications to both agencies. At the current weatherization funding levels Housing can serve roughly 1500 clients. With 15,000 income qualified LIHEA clients, Housing could be overwhelmed with applications. A joint application system of this type would require careful scrutiny of costs and benefits.

49 The electronic link between Housing and Welfare is discussed in more detail in the Housing Automation section of this report.

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The Housing Division has been working towards coordination with the agency administering federal rural home funds to try to develop an ability to cover home repairs necessary before installing weatherization materials. This is an important objective – substantial repairs are necessary in many rural homes due to the nature of the rural housing stock and overcoming this problem would overcome a substantial barrier to weatherization efforts.

No other local agencies are providing financial assistance to the Housing weatherization program.

## 2. *Review of Client Files*

Unlike the EAP, which is centrally administered and implemented by the Nevada Welfare Division, the WAP is administered by the Housing Division but is implemented by four Subgrantees.

**(1) Documentation:** All documentation is included in the case files examined (149 files). The most important items checked in addition to the application, were income verification and customer contact log. These were in all files checked. We also looked for (1) the BWR – a 1-2 page form – the full copy should be in the file. (2) the CAS (Combustion Appliance Safety Inspection Form) – a 6 page form completed in the field during the Combustion Appliance Safety assessment – this should be in certain files. (3) the Blower Door Weatherization Data Sheet is a 2 page document that records initial and final blower door assessments, (4) the Expenditure Report/Payment Authorization/Customer signoff form(s), and (5) the Weatherization Inspection Report or another form showing the precise items installed at the residence. Finally, (6) a copy of a utility bill from each utility that pays the UEC – documenting that the residence qualifies for UEC funded weatherization, and allowing any follow-up that requires knowledge of the utility account number. The files checked were a systematic random sample of all files.

**(2) Uniform Application:** As far as specific compliance with subsection 3 of NRS 702.270, one of the 149 cases appeared to be slightly over income but received assistance. It does not appear that this case fell under the emergency provision of subsection 4 of NRS 702.270.<sup>50</sup>

**(3) General Quality of Records:** The WAP files are well kept. The problem listed above is the only problem that can be seen from a review of records. Due to the decentralized implementation of the program by the 4 community based organizations, the files lack overall uniformity. However, while forms not required by program policy may differ for each Subgrantee, all of the required forms are in fact

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<sup>50</sup> This case was corrected by the Housing Division and the funding was taken from a non-UEC source.

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being maintained by the program's Subgrantees. The important information is present.<sup>51</sup>

### 3. *Informal Compliance*

With regard to informal compliance, which has to do with meeting expectations in addition to formal requirements, the Housing Division has no problems of real or apparent conflict of interest. Costs are realistic. There is a strong strategic and technical effort to maximize energy savings while minimizing cost, given that a "whole house" approach is most cost-effective in the long-run.

Although there was a significant carry forward of 75% from SFY 2002 (the "pre-program year) to SFY 2003, the cumulative carry forward from SFY 2003 to SFY 2004 was reduced to 33%, and from SFY 2004 to SFY 2005 the cumulative carry forward was reduced to 21.8%. Although not within the time window of this report, looking at progress in SFY 2005 the Housing Division is achieving full implementation and is virtually certain to carry over only a small contingency reserve at the end of SFY 2005.

The Housing Division has cooperated in the communications and market efforts (covered in the Energy Assistance section of this report), and these efforts are moving along successfully.

Although these are subjective assessments, they are assessments for which no countervailing information of any kind has been encountered: it is a consensus of the evaluation team that everything about the Housing Division implementation "looks OK" and "feels right."

### ***F. Housing Automation Analysis***

The Housing automation study is focused in two areas: (1) the links between Housing and Welfare, and (2) automation issues internal to Housing.

#### 1. *Links between Welfare and Housing*

Welfare now downloads records to Housing on a monthly basis for all clients receiving assistance. This process of sending records for all Welfare assistance recipients began well into SFY 2004, and 6,777 household records were sent by the

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51 There are certain forms that should be present in a complete customer file. These are records of the work done on the house and the final signoff. While most of the data exists electronically, it should also be in hard copy in the customer files. The hard copy of the forms also has items that cannot be entered electronically.

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end of the fiscal year.<sup>52</sup> This process works well, allowing Housing to prioritize solicitation of potential participants. Welfare added their internal customer UPI number to the download.

In SFY 2004, the Welfare Division sent Housing records for 40 households that exceeded \$2500 Fixed Annual Credit. These are high energy users. They receive immediate contact from Housing. Of the 40, fourteen made no response to contacts, thirteen are pending decisions, eight have been or are being weatherized and five have refused weatherization.

## *2. Welfare Link Recommendation*

For SFY 2004, the Welfare Division broadened the download criteria, below Fixed Annual Credit of \$600, and now exports information for all assistance recipients. Welfare added a unique identifier, the UPI Index<sup>53</sup> to the exported records.

**Recommendation:** We recommend that the utility account numbers (sometimes two) be included in the download to Housing. With the UPI Index and the account numbers, weatherized homes that also receive Welfare LIHEA assistance can be easily identified for analysis. The utility account number would also allow matching to Housing records, and be a source of client identification information for discussions with utilities and extraction of utility consumption data.

## *3. The Building Weatherization Report (BWR)*

The Housing Division continued to make great progress during SFY 2004 in developing the tools needed to track and manage the Weatherization Assistance Programs.

The Building Weatherization Report (BWR) is the primary tool used by the Housing Weatherization Assistance Programs to track weatherization measures installed. The electronic BWR was put into use within the Housing Division and by the Subgrantees in March 2003 (SFY 2003). During SFY 2004, the database underwent extensive revisions, allowing for more user-friendly reporting.

The separate reporting databases were incorporated into the BWR so that only one database was needed to generate monthly management reports.

Housing also made reporting and financial modules available to the Subgrantees in SFY 2004. Previously, in SFY 2003, these were not available to the agencies. Using this system, each Subgrantee can only access its own data.

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<sup>52</sup> Prior to this, only records of those receiving FAC of \$600 or more were sent to Housing.

<sup>53</sup> The UPI Index number is unique to the client and is used in all Welfare Division-programs where the client receives services.

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Other changes to the BWR include improvements to the data export functions, making it easier for the Subgrantees to send their month-end reports to Housing. The addition of a data import function makes it easier for Housing to import data sent by the Subgrantees.

#### *4. Energy Savings Tracking Database*

An Energy Savings component of the BWR database computes expected gas and electricity savings using engineering estimates for measures installed.

Engineering estimates of savings are determined based on weather data for each county, fuel type, building type and historical installed cost data. The computation of the savings to investment ratio (SIR) is used to rank measures and develop a priority list for the order of measure installation. Installing measures in a specific order and according to installation procedures that instruct contractors when to stop is intended to limit measure installation to cost-effective measures.

The priority installation list is used in place of auditing each home prior to weatherization. There was no change in the measure installation priority list from SFY 2003 to SFY 2004. While DOE requires updating the priority list every five years, Housing is able to easily re-compute the list annually, keeping it current.

#### ***G. Effectiveness and Efficiency***

For the SFY 2004 evaluation, an analysis of energy consumption and energy savings was carried out. However, for this evaluation, as with SFY 2003, there were a number of data problems. The problems encountered are discussed in this section and limited results are reported.

The “data years” required for each evaluation are shown below (Figure 10) This figure shows quantitative analysis (“A”) in December of each year. For portions of analysis dependent on utility data, the evaluation report will contain the analysis lagged by one program year. That is, the SFY 2004 evaluation report will contain the SFY 2003 quantitative analysis of utility consumption and energy savings data; the SFY 2005 evaluation report will contain the SFY 2004 analysis, and so on (Table 15).

Baseline Years, Program Years, Post Years and Analysis							
2001	2002	2003	2004	2005	2006	2007	
	SFY 2002	SFY 2003	SFY 2004	SFY 2005	SFY 2006	SFY 2007	
	BASELINE	SFY 2003 PROGRAM	POST YEAR	A→			
		BASELINE	SFY 2004 PROGRAM	POST YEAR	A→		
			BASELINE	SFY 2005 PROGRAM	POST YEAR	A→	
				BASELINE	SFY 2006 PROGRAM	POST YEAR	A→

Figure 10: Timing for Quantitative Analysis of Utility Data.

Inclusion of Utility-Related Data in Evaluation Reports				
Program Year	Baseline Year	Post Year	Quantitative Analysis Complete	Included in Evaluation Report for Program Year
SFY 2003	July 2001 June 2002	July 2003 June 2004	Dec-04	SFY 2004
SFY 2004	July 2002 June 2003	July 2004 June 2005	Dec-05	SFY 2005
SFY 2005	July 2003 June 2004	July 2005 June 2006	Dec-06	SFY 2006
SFY 2006	July 2004 June 2005	July 2006 June 2007	Dec-07	SFY 2007

Table 15: Reporting Sequence for Analysis Dependent on Utility Data.

### 1. Data Arrangements with the Utilities

Sierra Pacific Power, Nevada Power, and Southwest Gas utilities are providing full support for the necessary data arrangements for the evaluation. Establishing the understandings and relationships to insure data transfers and then actualizing the first set of data transfers took considerable time. The first data required programmers to write data extraction programs at the utilities, and the back and forth interaction between analysts and IT professionals that is involved in setting up new data arrangements. In addition, as is the case in many other areas, there is a new focus on data security which included data encryption. The process of developing arrangements for data transfer revealed some constraints that are due to the ways that different utilities maintain their energy usage and customer information.

### 2. Analysis Window, Baseline & Post Year

Because the methods needed to analyze energy use and energy savings (in kWh and therms) require a full year of pre-weatherization data and a full year of post-

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weatherization data, there is essentially a thirty-six month window on each analysis. The necessary length of this window means that there will be an analysis lag of one year.

The data requirements will also require each evaluation cycle to begin in December, rather than in the following July. Two data requests to the utilities will be required each year and each request will be split into two parts. One part will be focused on baseline data and the other on post year data and two program years will be included in each data request.

### *3. Initial Results*

As discussed above, for this SFY 2004 report, SFY 2003 data is analyzed.

A sample of 312 cases from Nevada Power Company and 61 cases from Sierra Pacific Power Company were provided for analysis (Table 16). These cases had varying amounts of data in the two periods. Data was cleaned and analyzed to standardize the amount of time elapsed in the pre and weatherization periods. That is, both periods required a full year of pre data and a full year of post data in order to compare payment behaviors.

Of the cases provided, there were 43 of the 61 Sierra Pacific cases with a full year of both pre-weatherization data and post-weatherization data. There were 116 of the 312 Nevada Power cases with one year of pre and post data.

Data in the pre and post periods was also trimmed so that statistically identified 'extremes' in the billed amounts in the pre and/or post periods were removed. In the Sierra Pacific dataset, one extreme was identified. In the Nevada Power dataset, ten cases with one year of pre and post data were identified as extremes and removed from further analysis.

The "step down" from data provided to usable data is shown in the attrition table, Table 16.

<b>Attrition Table Housing Weatherization Data SFY03 Weatherized Homes</b>	
<b>Nevada Power</b>	<b>Sierra Pacific Power Company</b>
312 cases provided	61 cases provided
Cases with at least one year of data Before and after weatherization	
116	43
Billing and payment 'extreme' cases removed	
106	42
15 electric heat homes 91 gas heat, electric baseload homes	7 electric heat homes 35 gas heat, electric baseload homes
Electric data available	Gas and electric data available

**Table 16: SFY 2003 Weatherized Homes (Attrition Table)**

Data is separated by utility since Nevada Power electric data was available but not their customer's gas data from Southwest Gas. Sierra Pacific data included billing and payment for both gas and electric usage. Southwest Gas data was not complete enough to use in the analysis.

<b>Percent of Bills paid in the Pre-Weatherization and Post-Weatherization Periods</b>					
<b>Utility</b>	<b>Period</b>	<b>N</b>	<b>Sum Bills</b>	<b>Sum Paid</b>	<b>Percent Paid</b>
NPC	Pre-period	106	68716.94	38831.54	57%
NPC	Post-period	106	107877.97	86478.01	80%
SPPC	Pre-period	44	117436.26	68418.30	58%
SPPC	Post-period	44	85497.46	60754.24	71%

**Table 17: Percent of Total Bill Paid (Pre and Post Weatherization).**

Table 17, constructed using the subset of cases for which the appropriate data was available, shows a substantially positive result. In the year previous to weatherization, these households paid about 57% to 58% of billed amounts. In the

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year following the year in which homes were weatherized, payment increased to 80% for Nevada Power and to 71% for Sierra Pacific Power.

This is a good initial result, since eligible households experience a range of physical and social conditions and situations. Clients include both stable low-income families and families and households in very difficult conditions.

In SFY 2005 a more detailed analysis will be developed, based on more complete data.

### ***H. Improvements and Plans***

**Housing Repair Fund:** A significant problem encountered in the field installation efforts by all Subgrantees is the older or rural home that does not meet current building codes or requires some kind of extensive repair. For example, when trying to do meaningful weatherization retrofit work, there can be a barrier of about \$1,000 per home (or somewhat over \$1,000) because old knob and tube wiring needs to be replaced. Proceeding to weatherize without bringing the wiring to code creates a fire hazard. Other homes might need significant roof repair or repair of holes in the flooring before they can be weatherized. These older or rural homes have the potential for significant energy savings but have to be skipped over for weatherization. Yet, these are often the homes that require treatment.

Each of the Subgrantees expressed a clear need for a designated repair fund outside the UEC guidelines and spending cap per home that currently cannot sustain the cost overhead of this type of repair work. Realistically, the UEC program has to overcome this repair barrier one way or another. Currently, the Subgrantees often try to leverage funds with other agency rehab dollars, but this doesn't solve the problem, because the problem is larger than the funds available.

We recommend designation of a repair fund outside other cost-effectiveness considerations or tests to meet this real need in rural and older homes. It could also cover some similar, but smaller, costs for non-rural Nevada homes. The basic need is to establish a separate fund for these real needs that is governed by different rules than the weatherization program itself.

**DSM Funds:** Justification of additional funds from utilities under the framework of Integrated Resource Planning where the Least-Cost alternative to utilities may be an addition to the ongoing residential weatherization work. Essentially, this is a "coordinated program" recommendation in which, for Demand-Side Management (DSM) purposes the work carried out already under the federally funded and state

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UEC residential weatherization effort would be looked at by the utilities as an off-budget cost for purposes of developing a DSM addition to the current program.<sup>54</sup> Crews are already in the homes and carrying out the UEC work. Since that is a “sunk cost,” could the utilities use that effort as leverage to fund additional measures that are not covered under the current program? It should be noted that Sierra Pacific Power Company and Nevada Power do provide DSM assistance that is used, for example, by Henderson Neighborhood Services to extend residential weatherization beyond the UEC income limit of 150% of the federal poverty level (“gap funding”), so that a coordinated program approach does exist in that sense. The proposal here, however, differs in the concept of an “add on” to homes covered by the current program. As proposed by Ernest Nielson, there could be both an energy use component and a separate demand component to this funding because the residential weatherization work creates both values for the utilities. While the full UEC could not be cost-justified on this basis from a utility perspective, given that the UEC work is authorized by law for different, though related, reasons, there should be DSM add-ons cost-beneficial from a utility perspective.<sup>55</sup>

### ***I. Staffing Analysis***

To keep the program effort as carried out by the Subgrantee agencies fully accountable, an additional technical position is required within the Weatherization Assistance Program. A Technical Officer is required to carry out *inspection* and *training* functions. The recommendation is to proceed with the creation of a Technical Officer position and the appointment of a Technical Officer to implement inspection and training functions. Both of these functions better belong within the office rather than under contract with service providers.

Although the Subgrantee agencies are well run and sound, it is important that the state have an inspection function independent of the agencies. It is not that this Officer is required to carry out all inspections, but that quality of all inspections is likely to be raised and maintained by having this position in the Housing Division. This position is necessary for program control and quality assurance.

The Technical Officer position will enable ongoing training to be shifted from California to on-site training from the Housing Division.

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54 Technique for design of “Coordinated Programs” is developed by Lawrence J. Hill and Marilyn A. Brown in “Estimating the Cost-Effectiveness of Coordinated DSM Programs,” *Evaluation Review*, 19(2):181-196, 1995.

55 Ernest K. Nielsen, an active participant in the formation of the UEC and of the committee following implementation has proposed and is working on these possibilities.

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## ***J. Recommendations***

For the SFY 2004 evaluation, recommendations for the Housing Division are limited:

- The primary recommendation is to add a Training Officer position, expanding the staff for the Weatherization Assistance Program from two to three persons (see “I,” above and also the SFY 2003 Evaluation).
- Downloads from the Welfare Division should always include customer account numbers to support identification (please see “F,” above).
- A repair fund should be established (please see “H,” above).
- Cost-effectiveness should be coordinated (please see “H,” above).
- Staff persons at the various Subgrantee offices have varying levels of experience using databases. While all the Subgrantees appreciated the changes to the BWR database, some felt they could not fully utilize the reporting functions without some training or instruction. We recommend training on the use of the BWR database reporting functions be made available to agencies.
- “Gap” funding from Sierra Pacific and Nevada Power is currently provided to weatherize homes between 150% and 200% federal poverty level. Both southern Nevada agencies had waiting lists for households in this poverty range because they had run out of Gap funds and these households were over income for UEC funds. Especially in southern Nevada, increasing the income eligibility to use UEC funds would be helpful because the Area Median Income (AMI) is higher than in other areas of the State. An AMI of 60% is equivalent to about 200% poverty level in this area. Increasing the eligibility to 50 or 60% AMI would allow agencies to treat more homes, especially if Gap funding is also available to leverage.
- Agencies all report good communications with Housing, finding staff accessible and responsive. Still, there were mixed reactions to the frequency of meetings with the State. These meetings are designed to share information between agencies, the inspection contractor and the State. It was suggested the meetings be increased to quarterly meetings and include a half day with administrators and a half day, or more as needed, with contractors, Housing, and the inspection firm.

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## VII. ENERGY ASSISTANCE PROGRAM

The Energy Assistance Program helps eligible households pay utility bills. The program is not designed to pay the total cost of energy. Each household is responsible for paying the balance.

Eligible households receive an annual benefit which is paid directly to their energy providers.<sup>56</sup> Applications are accepted through June 30th, or until funds are exhausted, whichever comes first. Prior year recipients may not reapply until approximately 11 months after they received their last benefit.<sup>57</sup> Payments from the Fund for Energy Assistance and Conservation are keyed to the state median household energy burden. The program year begins each July 1<sup>st</sup> and is the same as the State Fiscal Year.

Although more steps are involved, the three primary steps in calculating the Fixed Annual Credit for a household are:

- **Identify household's annual gross income.** The Welfare Division identifies the household gross annual income. The Welfare Division then applies the median energy burden percentage to determine the amount the household is expected to pay. For SFY04, Nevada's median income was \$44,581 and the median household energy burden for natural gas and electricity 2.90%.<sup>58</sup>
- **Identify household's annual usage in dollars for all energy sources.** During the application, the Welfare Division determines total annual cost of energy use for the household (including, for example, natural gas, electricity, wood, oil, propane, and kerosene), and generally requests the client to show bills or may receive copies of bills directly from energy supply companies. The applicants are expected to help the Welfare Division obtain billing records where necessary.
- **Determine the Fixed Annual Credit.** For SFY 2004, if the household's annual dollar usage is greater than 2.90% of household's income, the difference is the FAC. If the result of the calculation is less than \$120, the result is set equal to \$120, the minimum payment for eligible households.<sup>59</sup>

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<sup>56</sup> UEC funds are used first for payments to utilities in UEC. Federal LIHEA and/or other funds are used for payments to non-UEC utilities, such as propane dealers.

<sup>57</sup> Application packets are mailed to prior year recipients when it is time for them to apply.

<sup>58</sup> The method of the energy burden calculation is illustrated in Section VII (B) of this report.

<sup>59</sup> Eligible subsidized housing residents, who receive a Utility Fuel Allowance (UFA) that is used in computing the household's portion of the rent, receive a payment of \$120. If all utilities are in landlord's name and are included in the rent and the household does not receive a separate bill that includes consumption & dollar usage, the household will receive \$120. If all utilities are in landlord's name but the

Only customers of utilities that require customers to pay the Universal Energy Charge (UEC) adder on their monthly bills are eligible to receive help from the Nevada Fund for Energy Assistance and Conservation (FEAC). However, the state UEC program is coordinated with the federal program so that all eligible Nevada households receive equal treatment.<sup>60</sup> For SFY 2004, the Fixed Annual Credit could be paid from the Nevada Fund for Energy Assistance and Conservation (FEAC), from federal low-income Energy Assistance (LIHEA) funds, or from a one-time award of Nevada Housing Bond monies from the Single Family Mortgage Revenue Program administered by the Housing Division.

Income eligibility guidelines for SFY 2004 are shown below (Table 18).

<b>SFY 2004 – Income Eligibility Guidelines</b>		
<b>Household Size</b>	<b>Maximum Annual Gross Income</b>	<b>Maximum Monthly Gross Income</b>
	<b>150% of Federal Poverty Level</b>	
1	\$13,470	\$1,122.50
2	18,180	\$1,515.00
3	22,890	\$1,907.50
4	27,600	\$2,300.00
5	32,310	\$2,692.50
6	37,020	\$3,085.00
7	41,730	\$3,477.50
8	46,440	\$3,870.00
Add:	\$ 4,710	\$ 392.50

**Table 18: Income Guidelines.**

household receives a separate bill which includes consumption and dollar usage, the household receives a FAC and the benefit is paid to the household. If one of the utilities is in landlord's name and one is in household's name, the household will receive a FAC based on the utility in the household's name payable to the utility, unless the household receives a separate bill from the landlord that includes consumption & dollar usage in which case the household receives a FAC based on both utilities that is payable to the household's utility not to exceed the annual usage, and the remainder is paid to the household.

<sup>60</sup> This coordination implements NRS 702.250(3): "The Welfare Division shall, to the extent practicable, ensure 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."

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### **A. Fast-Track Component**

The Welfare Division attempts to fast-track households that have been disconnected from service or that have received a 48-hour disconnect notice, or are nearly out of heating fuel. This is not an emergency program, but will jump an application to first position in processing. Normally, applications are processed in date order received.<sup>61</sup>

### **B. Crisis-Intervention Component**

The Crisis Intervention Program assists households experiencing a special circumstance or crisis and whose gross annual income exceeds 150 percent of poverty except for allowably qualifying expenses that reduce the annual income to 150% of poverty.<sup>62</sup>

### **C. Year-Around Service**

The Welfare Division provides help year-around, a good fit to Nevada's diverse climates and weather.<sup>63</sup>

### **D. Formal and Informal Compliance**

Records were checked by drawing a systematic random sample of cases. In a careful examination of 130 client files developed as systematic random samples from the Las Vegas office and the Carson City headquarters office, there were no major problems with the procedures used to carry out the program or in the calculations of appropriate assistance amounts.

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<sup>61</sup> There are additional conditions that must be met to be placed in the Fast-Track component. The additional requirements are designed to insure that a household designated for priority service is doing what it can to meet its energy bills. Both Fast-Track and Crisis Intervention components will be continued in SFY 2005.

<sup>62</sup> Qualifying expenses must be supported by valid and verifiable documentation and must create a financial hardship of no less than three months, and may include: Un-reimbursed medical expenses for medical emergencies or long-term, chronic medical conditions; Un-reimbursed 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.

<sup>63</sup> This is a program feature that fits the climates of the Western states and which other states should consider adopting. States that do not have a UEC but rely on federal LIHEA funding typically have narrow service windows that change from year to year depending on when federal budgets are passed and on variable funding.

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**Arithmetic Calculation:** Approximately 26% (34 of 130) of the sample of cases reviewed had Fixed Annual Credits that had to be manually changed by \$1.00 due to a bug in the computer system that causes a rounding error. This percentage is identical to that found in the SFY 2003 evaluation. No case in the random sample shows an increase to the Fixed Annual Credit caused by the bug. A one dollar reduction in the Fixed Annual Credit to 26% of households is not a serious problem when looked on a case by case basis. However, the Welfare Division has identified it as a problem and put it on the list to be fixed by the IT programmers. This percentage error will eventually go to zero as the computer correction takes effect.

**Case Documentation:** Case documentation was one-hundred percent complete, counting both manual and automated results. Cases should include verification documentation. Of the 130 sampled cases, 11 cases (8%) did not include a utility bill sample. However, clients who are customers of Nevada Power, Sierra Pacific Power or Southwest Gas do not need to include a bill sample since EAP staff have use of an automated interface with the companies' billing systems. All 11 of the cases above were customers of one of the three companies listed. Beginning with the SFY 2005 evaluation, only customers of other companies will be manual.

**Determination of Eligibility:** Virtually all cases were in full compliance with subsection 3 of NRS 702.260 (eligibility). In SFY 2004, there were no cases in the sample reviewed that had eligibility errors. All approved cases were under 150% Federal Poverty Level and cases over 150% FPL were properly denied.

**Uniform Application:** In the judgment of the evaluators, all cases exhibited a sufficient amount of consistency to be considered uniform.

**Advice & Planning:** The Welfare Division and the Housing Division carefully coordinated activities and shared data to provide services during SFY 2004. Planning activity was jointly coordinated, as envisioned in the legislation for the program. There was also an active Advisory Committee, and frequent consultation.

**Coordination of Programs:** The Welfare Division carefully coordinates Universal Energy Charge payment assistance with the counterpart federal Low Income payment assistance program (LIHEA). The coordination of program enables service needs to be met and will continue to do so until full or near-full expenditure is reached, probably in SFY 2006.

**Finding: The Energy Assistance Program (EAP) program is in compliance with subsections 3<sup>64</sup> and 8<sup>65</sup> NRS 702.260, the relevant sections related to formal compliance.**

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<sup>64</sup> NRS 702.260 (3): Except as otherwise provided in subsection 4, to be eligible to receive assistance from the Welfare Division pursuant to this section, a household must have a household income that is not more than 150 percent of the federally designated level signifying poverty, as determined by the Welfare Division.

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### ***E. Informal Compliance***

With regard to informal compliance, that is, meeting expectations that are outside formal requirements, there remained a problem in SFY 2004 in implementing the program in a way that could fully expend program funds. However, as discussed above, a marketing and communications emphasis was cooperatively designed in SFY 2004 and was underway at the close of SFY 2004. This effort appears likely to resolve this problem.<sup>66</sup> Administration and staff have worked well with the practical constraints that were encountered.

### ***F. Calculation of Median Energy Burden***

Central to the Energy Assistance Program is the calculation of a state wide median energy burden to determine what the average household spends on energy. This is accomplished by a simple but effective formula. The major utilities provide program staff with average usage data in dollars.<sup>67</sup> These figures are then compared to the state-wide median income for the program year to find a median energy burden for the customers of each utility. Those burdens are then averaged to find a state-wide mean energy burden.

The energy burden for FSY 2004 was calculated as follows (Figure 11):

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<sup>65</sup> NRS 702.260 (8): In carrying out the provisions of this section, the Welfare Division shall: (a) Solicit advice from the Housing Division and from other knowledgeable persons; (b) Identify and implement appropriate delivery systems to distribute money from the Fund and to provide other assistance pursuant to this section; (c) Coordinate with other federal, state and local agencies that provide energy assistance or conservation services to low-income persons and, to the extent allowed by federal law and to the extent practicable, use the same simplified application forms as those other agencies; (d) Establish a process for evaluating the programs conducted pursuant to this section; (e) Develop a process for making changes to such programs; and (f) Engage in annual planning and evaluation processes with the Housing Division as required by [NRS 702.280](#). (Added to NRS by 2001, [3234](#).)

<sup>66</sup> Carry-over is discussed in the Fiscal Analysis section of this report. We expect full resolution of carry-over in SFY 2006, the fourth program year, or .in SFY 2007, the fifth program year. Programs of this size and complexity generally require three to five years to become fully implemented and fully functional.

<sup>67</sup> Note that the calculation goes into effect for the succeeding state fiscal year and is based on utility calendar year data. The overall lag, then, is about one and one-half years for a household entering the program at the beginning of a new fiscal year. This self-updating feature of the Nevada legislation is a notable advance. Many states have not included a self-calibrating factor in their program definitions, and states that do not do so encounter substantial problems as costs and incomes change over time.

Median HH Energy Burden	
NVPC - Electric	\$1,031.24
SW Gas - South	304.31
<i>Subtotal Southern Nevada</i>	<u>\$1,335.55</u>
Average % Energy Burden ( <i>\$1,335.55 / by \$44,581</i> )	3.00%
SPPC - Electric	\$703.39
SPPC - Gas	669.23
<i>Subtotal SPPC-Northern Nevada</i>	<u>\$1,372.62</u>
Average % Energy Burden ( <i>\$1,372.62 / by \$44,581</i> )	3.08%
SPPC -Electric	\$703.39
SW Gas - North	\$465.81
<i>Subtotal Northern Nevada</i>	<u>\$1,169.20</u>
Average % Energy Burden ( <i>\$1,169.20 / by \$44,581</i> )	2.62%
<b>Statewide Median HH Energy Burden for Electricity and Natural Gas</b>	<b>2.90%</b>
<i>Median HH Electric Energy Burden</i>	<i>1.450%</i>
<i>Median HH Natural Gas Energy Burden</i>	<i>1.450%</i>

**Figure 11: Energy Burden Calculation.**

Each utility was required to submit a full accounting and estimate of their customers' annual usage. The median income was acquired through the US Census Bureau. The method is sound on its face.

In SFY 2003, the mean energy burden (4.27%) was higher than subsequent years (2.90% in 2004 and 3.06% in 2005) due to the Welfare Division being given only partial utility data and due to using a lower average income. Both of these issues were dealt with and are not present in improved calculation for SFY 2004. The SFY 2004 result is based on better data.

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## **G. Welfare Automation Analysis for SFY 2004**

Essential computer support was fully in place at the end of SFY 2004 for the beginning of SFY 2005, with the exception of key program management reports.<sup>68</sup> The management reports are on Information Technology's "to-do" list for SFY 2005.

### **1. Necessary Computer System Support**

The scale of the program means it is dependent on computer based systems to insure the exactness and appropriateness of specific calculations that must be carried out for each client.

Necessary support includes:

- Calculation of energy burden and the correct payment assistance amount using the appropriate and standardized method of calculation for each client.
- Electronic linkages between the Welfare Division and the major utilities to secure gas and electric energy usage data on a current basis when processing each client application.
- Computer generated lists in electronic format (sometimes generated across systems) to support outreach. Eventually, these linkages will enable participation in LIHEA based on screening and participation in other Welfare Division services.
- Computer coordination with the Housing Division.
- Computerized management reports to be used by the Program Manager and Program Officer to insure program accountability, access to information, and to use in program control.

### **2. Accomplishments to Date**

It would be difficult to overstate the massive amount of complex, intricately interconnected, and detailed effort that has been accomplished to date in designing and implementing the Welfare Division computer systems for the Energy Assistance Program. The following list summarizes accomplishments:

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<sup>68</sup> The evaluation team views this as very good progress. Computer systems for new major applications for a whole state easily take three years to develop, test, and refine to meet the specifications for a new area. Also, it is just a reality of life that knowledge is gained as the system is built and this new knowledge has to be taken into account in the final form of the system. Development of the computer area is discussed in more detail in the SFY 2003 Evaluation.

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- Approval for new payment methodologies was secured from the State Controller's Office.
  - Staff members can now view or access the data entered in the prior fiscal year.
  - The architecture to support an open domain website has been developed on a limited basis for a couple of programs, and it is being tested now.
  - There were three programmers hired dedicated to the LIHEA program. The IT Manager is placing priority on the development of the missing management reports during SFY 2005.

Virtually the complete computer system, as originally envisioned in 2002 and 2003 came into place at the end of SFY 2004.

### **3. *Plans for 2005***

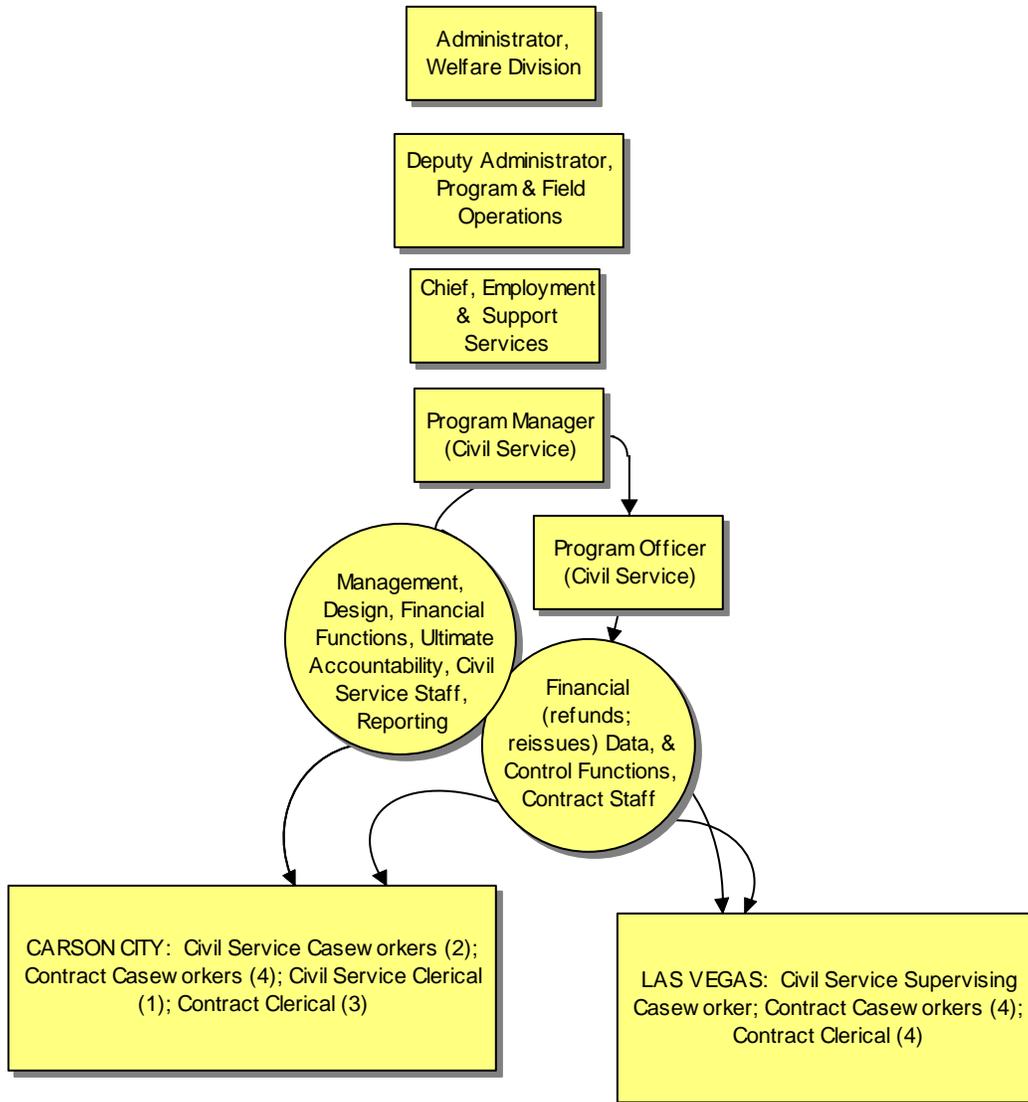
Three new changes to the automated system were approved for SFY 2005.

- A change in Fixed Annual Credit calculation that allows residents in subsidized housing to receive a full benefit based on income and annual usage instead of only the minimum payment.
- Increase the minimum payment to \$180.
- Pilot an arrearage program as a component of the UEC emergency program.
- Develop the management reports necessary for the Program Manager and Program Officer to use in program control.

### ***H. Staffing Analysis***

Prior to the UEC, the Welfare Division operated the statewide program from Carson City with a staff of five state employees. The UEC brought a very substantial increase in caseload. Due to the need for a Las Vegas office to service the increased caseload for UEC a Las Vegas office was opened.

The basic structure for the Welfare Division implementation for UEC (and for continuing LIHEA services) is shown in Figure 12.



**Figure 12: Staffing Structure.**

With this staff size and composition, the Welfare Division will be able to cover the caseload, including additional caseload that is being developed from marketing and other efforts. As in the SFY 2003 evaluation, there is no recommendation at this time to increase staff.

However, as previously recommended, the Welfare Division should move toward converting the eight casework positions and the seven clerical positions from contract staff to Civil Service.

It is reasonable to use contract staff on a short term basis for program start-up. However, the need now is for a staff of the current size that will stay with the program and allow it to mature. Certainly some turnover will necessarily be accommodated.

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However, contract staff tends to become experienced with Civil Service requirements and modes of operation and then, with this familiarity (and with growing experience), bid on Civil Service positions in other agencies as open-competitive positions occur over time. While the state may not lose the investment in training and experience for contract staff in an overall perspective, it is important in insuring program stability and eventual maturity of operations to maintain a core staff with the appropriate experience and skills. The contract workers attain the specific skills and experience required by serving in the contract positions. Accordingly, the recommendation in this area is to move towards converting the contract staff positions to Civil Service positions.

As noted in the prior evaluation, there is, of course, a “pro and con” on this recommendation. First, Civil Service staff cost more than contract staff. Based on Welfare Division records, a contract caseworker may cost approximately \$32,157 per year (52\*\$618.40). A Grade 29, step 9, caseworker will cost approximately \$54,430 per year (inclusive of benefits figured at 28%). The difference is \$22,273 per position moved from contract to Civil Service. Second, the state implicitly makes a long-term commitment to Civil Service staff, while a contract worker is a form of temporary worker, even if particular assignments turn out to become long-term.

Evaluators have to focus on what makes the organization more effective and efficient. From these perspectives, the cost advantage of contract workers is outweighed by other considerations.

- This program will be long-term. Our evaluation projections of need indicate that need for the program is large and will increase.<sup>69</sup> Given that definition of the program, positions should be gradually shifted into the Civil Service to provide for stability, continuity, long-term program control and accountability, and maintenance of the basic skills and knowledge essential to operate the program.
- Depth of staff is essential to accommodate changes and challenges as need increases.
- The change would provide family security to the staff in the form of Civil Service salary and benefits. These costs are small and easily accommodated within the recommendations of this evaluation in the area of administrative costs.<sup>70</sup>

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<sup>69</sup> Please see sections on Need and Program Logic.

<sup>70</sup> As developed in the SFY 2003 evaluation, both the federal LIHEA program and the “best practice” state UEC programs allocate 10% of budget for administration. If Nevada implemented a similar provision and also removed the Public Utilities Commission percentage from this category the minimum staffing needs for both Welfare and Housing divisions could be met without difficulty.

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There are three specific recommendations:

- (1) The Welfare Division should move towards converting these positions from contract workers to Civil Service, providing opportunity for current staff to move to Civil Service where possible and consistent with Civil Service provisions and regulations.
- (2) For the current time, at least five of the positions should be converted to Civil Service.
- (3) If it is necessary to move very slowly in this direction, at least three positions should be converted now to insure stability and control of office functions.

### ***I. Payment Behavior***

This evaluation contains a first analysis of payments.<sup>71</sup> A sample of 591 cases from Sierra Pacific Power Company and 577 cases from Nevada Power were received from the utilities for analysis. The random sample of UEC/FEAC cases was drawn by H. Gil Peach and Associates from the Welfare database and submitted to the utilities as the list of households for which to attempt to retrieve billing and payment data.

These cases received funding in the SFY2003 year. The data provided included the date of billing and the amount of billing. The sample cases had varying amounts of utility data in the period requested, from 2001 through 2003. Data was cleaned and analyzed in order to compare payment behaviors. Because the assistance could be received anytime, and the participant may have received assistance in prior years, an analysis comparing SFY2002 and SFY2003 was completed, rather than behavior one year before and one year after receipt of assistance.

There were inconsistencies in some of the utility data. This was verified with Welfare data for SFY03. Because the utility assistance data for multiple years was unreliable, only the SFY03 data from the Welfare database is reported for these sample cases.

- Also, for this analysis, only cases with data in both SFY02 and SFY03 were used.
- In addition, cases were required to have at least eleven months of billing and payment data in both years.

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<sup>71</sup> As discussed elsewhere in this report, the evaluation reports will lag payment and energy use analysis by one-year: the SFY 2004 analysis uses SFY 2003 data; the SFY 2005 analysis will use SFY 2004 data, and so on. Also, as the data is analyzed in the evaluations, data constraints will continue to emerge and be dealt with. For the next few evaluations, each analysis will go deeper. As is usually the case with evaluations of complex programs dependent on multiple data bases (here, data from the different utility data systems) it will take three or four evaluation cycle to adjust data constraints to reach the optimal analysis.

- Cases with billing or payment data that appeared to be extreme were removed.

Attrition of the samples with these conditions imposed is shown in Table 19.

<b>Energy Assistance Sample Cases with UEC funding (Attrition Table)</b>		
	<b>Nevada Power</b>	<b>Sierra Pacific Power</b>
<b>Number of cases with UEC funding provided by the Utilities</b>	525	521
<b>Step 1: Cases with at least 11 months of data in both SFY02 and SFY03</b>	189	170
<b>Step 2: Cases remaining, with billing and payment 'extreme' cases removed</b>	175	138

**Table 19: Utility Data Attrition Table**

Table 20 shows the percent of the annual bills that were paid by cases remaining at Step 2. In SFY03, customers at both Nevada Power and Sierra Pacific paid about 75% of the total billed amount.

<b>Percent of Total Bills Paid in SFY02 and SFY03 (Cases with at Least 330 days in Both Years) Extremes Removed</b>				
	<b>N</b>	<b>Sum Bills</b>	<b>Sum Paid</b>	<b>Percent Paid</b>
<b>NPC SFY02</b>	175	109,221	58,139	53%
<b>NPC SFY03</b>	175	318,768	231,541	73%
<b>SPPC SFY02</b>	138	272,236	161,948	59%
<b>SPPC SFY03</b>	138	244,504	182,540	75%

**Table 20: Percent of Total Bill Paid**

This table shows payment improved between SFY 2002 (for which the program was just beginning and in which assistance still operated under the previous program rules) and SFY 2003 (for which the program was implemented in accordance with NRS 702 under the Nevada UEC rules and with the UEC in operation). Because the analysis in Table 14 does not take into account the month of entry into the program, it shows but understates the positive program effect.

Distributions of UEC and LIHEA dollars for cases remaining at Step 2 are shown in Tables 21 & 22.

<b>Sierra Pacific Power Company Energy Assistance Dollars Distributed Cases with at least 330 days in SFY03 and SFY02 Extremes Removed</b>						
	N	Minimum \$	Maximum \$	Sum \$	Mean \$	Std. Deviation
Total Benefit Fixed Annual Credit	138	14.00	1696.00	92213.86	668.21	429.40
LIHEA funds	138	.00	726.50	31742.84	230.02	207.39
UEC funds	138	7.00	1253.25	47922.21	347.26	268.02

**Table 21: Energy Assistance Dollars Distributed, Sierra Pacific Power Co.**

<b>Nevada Power Company Energy Assistance Dollars Distributed Cases with at least 330 days in SFY03 and SFY02 Extremes Removed</b>						
	N	Minimum \$	Maximum \$	Sum \$	Mean \$	Std. Deviation
Total Benefit Fixed Annual Credit	175	15.00	2457.00	102858.72	587.76	474.23
LIHEA funds	175	.00	700.00	32445.13	185.40	191.67
UEC funds	175	8.00	1873.00	54449.65	311.14	325.17

**Table 22: Energy Assistance Dollars Distributed, Nevada Power**

***J. Effectiveness and Efficiency***

In the FY 2004 Energy Assistance Program Funding and Participation Information provided by the Welfare Division, the program fiscal year is summarized (Table 23).

As shown in this table, funds were distributed almost evenly between the northern and southern regions of Nevada. Households in northern Nevada had a higher

average payment amount due to the climate differences and associated higher cost of home heating.

<b>NEVADA STATE WELFARE DIVISION</b> <b>FY 2004 ENERGY ASSISTANCE PROGRAM STATISTICS</b> <b>Revised 11/18/04 FINAL REPORT</b> <b>July 1, 2003 through June 30, 2004</b>						
Categories	Statewide		By Region			
	Total	%	South	%	North	%
# HOUSEHOLDS APPLIED	19,197		10,987	57.2%	8,094	42.2%
# HOUSEHOLDS SERVED	15,998	83.3%	8,840	55.3%	7,158	44.7%
*Households with ELDERLY	6,255	39.1%	3,390	38.3%	2,865	40.0%
*Households with DISABLED	6,600	41.3%	3,763	42.6%	2,837	39.6%
*Households with CHILDREN UNDER 2	2,213	13.8%	1,072	12.1%	1,141	15.9%
SUBSIDIZED HOUSING	4,900	30.6%	2,829	32.0%	2,071	28.9%
TOTAL EXPENDITURES/OBLIGATIONS	\$ 7,974,663		\$ 4,001,349		\$ 4,120,128	
Average Payment	\$ 498		\$ 453		\$ 576	
# HOUSEHOLDS DENIED	3,199	16.7%	2,195	68.6%	1,004	31.4%
*Households with ELDERLY	586	18.3%	362	16.5%	224	22.3%
*Households with DISABLED	858	26.8%	531	24.2%	327	32.6%
*Households with CHILDREN UNDER 2	325	10.2%	191	8.7%	134	13.3%
SUBSIDIZED	300	9.4%	198	9.0%	102	10.2%
DENIAL RATE		16.7%		19.9%		12.3%

\* These characteristics may include duplicate counts when appropriate (i.e., if a household member is elderly and disabled they are counted in both categories).

\*\*The following percentages were derived by dividing the regional number for each characteristics by the total households served in the region.

\*\*\*80% of pending applications have been reviewed and are awaiting additional information such as energy usage, proof of income, and/or other pertinent household information.

**NOTE: The northern region office in Carson City processed (approved & denied) 633 cases from the southern region office in Las Vegas to ensure all cases were processed within 30 working days or less.**

**Table 23: SFY 2004 Program Statistics.**

The practical program constraints involved in getting a fully functional computer support system in place in SFY 2003 were overcome by the end of SFY 2004. During this period, caseworkers were constrained in providing services because fully functional support technology had yet to be completed. By the end of SFY 2004, this program barrier had been eliminated for staff work in receiving and evaluating applications, with the management reporting piece to be completed in SFY 2005.

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## ***K. Improvements and Plans***

The Welfare Division added two basic improvements to the program during SFY 2004, both of which will take effect at the beginning of SFY 2005. These are the Arrearage Component and the Marketing arrangement with Vitalink Communications.

### ***1. Arrearage Component***

A one-time arrearage payment component was designed in SFY 2004 for implementation in SFY 2005. The Arrearage Payment Program is designed to enable low-income households to achieve self-sufficiency through a combined one-time arrearage assistance payment and an ongoing FAC benefit.<sup>72</sup> The Arrearage Payment Program will provide assistance in an amount eliminating the debt owed to their heating and/or cooling vendor(s). Eligibility will be based on the income of the household.

### ***2. Outreach (Marketing & Communications)***

An "Outreach Advisory Committee" was formed in SFY 03. Participation includes:

- Welfare Division
- Housing Division
- Sierra Pacific Power Company (northern Nevada)
- Nevada Power Company (southern Nevada)
- Southwest Gas
- Public Utilities Commission of Nevada (PUCN)
- Bureau of Consumer Protection
- Community outreach representative (northern Nevada)
- Community outreach representative (southern Nevada).

In SFY 2004, the Welfare Division, in cooperation with the Housing Division and the Outreach Advisory Committee developed a plan for a vigorous outreach campaign. Implementation took place at the end of SFY 2004.<sup>73</sup> The Welfare and Housing Divisions contracted with a professional marketing firm, Vitalink Communications of

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<sup>72</sup> A UEC-eligible household may receive an arrearage benefit only once for as long as they participate in the EAP program. The only exceptions are households with chronic, long-term medical conditions that create a financial hardship and/or increase energy consumption.

<sup>73</sup> Initial results of the marketing and communications campaign will be reported in the SFY 2005 evaluation.

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Raleigh, North Carolina.<sup>74</sup> The role of Vitalink Communications is to develop maximum exposure for the energy and weatherization assistance programs in order to augment the numbers of Nevadans utilizing FEAC funds.

The advisory committee will meet as needed during FY05 to recommend public relations and outreach activities, and investigate the costs associated with them. The committee recommends activities to the Welfare and Housing Divisions.

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<sup>74</sup> Vitalink is a full-service marketing, advertising, research, and public relations firm.

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## VIII. BEST PRACTICES COMPARISON

The SFY 2003 evaluation reported on best practices in the area of administrative cost. The “best practice” recommended in that evaluation was to raise the administrative cost for the Welfare Division and Housing Division to 10% of the Fund for Energy Conservation and Assistance (FEAC) funding. This would bring it up from the “6.6375% plus Outreach, Program Design, and Evaluation” provisions of NRS 702. In addition, the Public Utilities Commission funding should not be included in the 10% total since the Commission does not have program responsibilities. This kind of change would require change in the authorizing legislation.

In this SFY 2004 evaluation, the “best practices” focus is on “equal payment.” Equal payment, or some alternative form of optimizing customer payment is actually a utility responsibility and not a responsibility of the state. However, the payment program is part of a larger system to facilitate payment of energy bills and utilities maintain other key parts of the system.

- Barbara Alexander, a highly regarded national consultant in the area of design of low-income energy programs, brought into the Nevada design process by AARP, has recommended that the utilities move customers to equal billing and pro-rate the payment assistance amount equally across these bills.
- On September 25, 2003, a workshop was held around the vision of an equal bill/equal payment concept put forward by Ernest K. Nielsen, Washoe County Senior Law Project. As a result of a workshop, language was crafted to be given to eligible households, illustrating how they might make utility payments in a way that will accomplish the same result.<sup>75</sup>
- Under Nevada’s Customer Bill of Rights, utilities must offer a budget billing option and payment plans for needy customers.<sup>76, 77</sup> It has not yet been clarified how the UEC payment assistance is to be configured in the context of these rights.

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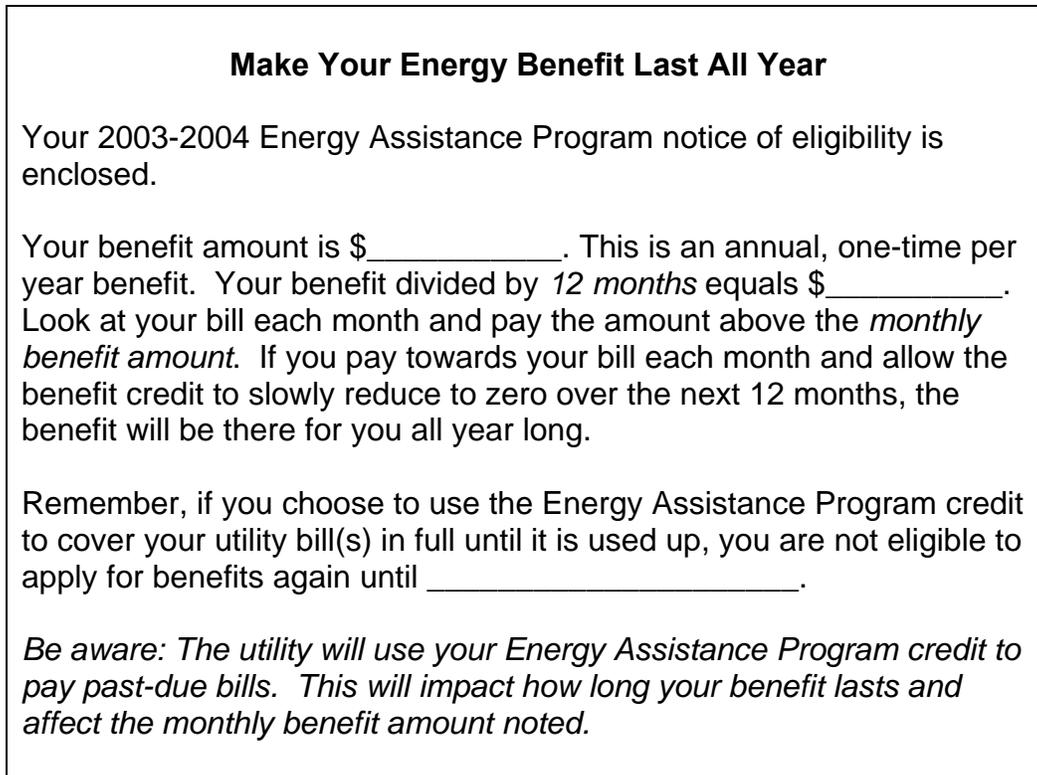
<sup>75</sup> Results of Workshop Related to Equalized Payment and Universal Energy Assistance, September 25, 2003. This workshop was organized around a vision of an equal bill/equal payment concept put forward by Ernest K. Nielsen, Washoe County Senior Law Project.

<sup>76</sup> For the Customer Bill of Rights, see the Nevada Public Utilities Commission Website, <http://www.puc.state.nv.us>.

<sup>77</sup> This “budget billing” option is becoming very widespread across the states. A more extensive approach has been taken by Northwest Natural Gas in Oregon. A recent order of the Oregon Public Utility Commission places *all residential* customers under an equal pay plan, with an “opt-out” for customers who request it. According to the company, this substantially helps the cash flow of both the company and the customers who participate.

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The current provision to help customers pay something toward the bill each month is the letter shown in Figure 13. This letter is provided to each household by the Welfare Division to serve as a reminder.



**Figure 13: Reminder.**

Clearly, the letter (Figure 13), though a positive step, is a relatively weak implementation of the principle of optimizing payment by the customer of the household portion of the energy bill. A payment-troubled household with the energy bill showing a credit at the end of the month along with other bills and a shortage of income may not make the proportional energy payment. However, a simple programming fix to require an equalized payment before applying the payment assistance credit would likely be too strong an implementation.

The kind of change required would go beyond modifying the utility billing systems. It would require additional utility staff effort in the billing and payment area. In an ideal form, the utility or an agency contracted by the utility for payment counseling would coach each payment troubled customer to optimize collection up to the customer amount each month and then apply the balance from the payment assistance amount for that customer. At the same time, there may be months for which a customer cannot pay the customer amount pro-rated for that month and the full payment for that month would have to be drawn from the payment assistance balance on the account. The key change would be for the “in-full” draw for a month

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not to be automatic. At the same time, the application of the proportioned payment should be automatic, leaving the customer with only any unpaid customer portion of the bill to make up.

A complication is that low-income payment troubled households move more than others. Beyond this, the Western states are known for high mobility for all economic levels of households. In the US, Reno and Las Vegas probably have the highest mobility.<sup>78</sup> Putting these three factors together, it is simpler for the utility to apply a single credit.

Also, the recent national direction of utility credit and collections is to lower transaction costs by moving customers to automated payment processes and away from direct service through local offices. Not long ago, payment-troubled customers could be coached and arrangements could be made personally through office visits. Today, most utilities have shifted most customers to mail, automated, or semi-automated payments and direct face-to-face assistance in local offices is not available.

In checking with other states to find “best practices,” we found only New Jersey to have implemented utility billing systems that allocate UEC (or USF) payment assistance proportionately each month, requiring the customer portion each month. The other states that allocate a once a year payment apparently all have the payment balance problem encountered in Nevada.<sup>79</sup>

From experience with utility programs in states that do not have a UEC, we find a variety of orientations. The underlying fact is that most utilities in states without a UEC have not faced the extent of the growing problem of lack of income, though it is associated with underlying social and economic developments that appear unlikely to be reversed. Smaller utilities are often stuck with an older framework that does not take the growing severity and extent of income problems into account. Some utilities use a social work approach to optimize customer payment of a highly discounted bill; such utilities provide several opportunities for customers to pay prior to disconnecting service. At the other end of the scale, some utilities allow very large arrearages to accrue and appear not to be carrying out their collections procedures for large blocks of customers in low-income areas. In the latter case, these utilities are generally focused on acquisitions and expansions that appear to offer profit opportunities and

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<sup>78</sup> For example, in Table 19 only about one-third of households were present at the same address for at least twenty-two months.

<sup>79</sup> The evaluation team would like to thank the National Center for Appropriate Technology (NCAT) for maintaining state data profiles on low-income programs for the US Department of Health and Human Services, Administration for Children and Families (<http://www.ncat.org/liheap/wwwa.htm>). This data archive of program information is essential in helping to identify best practices. We would, in particular, like to thank Kay Joslin, Director, LIHEAP Clearinghouse for identifying the “best practices” information required for this section of the evaluation.

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are not focused on customer service to customers who find their income opportunities have declined.

In any case, utilities are part of the answer to these problems. Low-income and payment trouble customers are a major customer segment and eventually there will be a movement within the utility sector to optimize payments from the increasing numbers of household that will lack ability to pay consistently at cost-based rates. In the meanwhile, the “best practice” has been implemented by New Jersey utilities to coordinate with their state UEC (or USF).

In this evaluation, we recommend going a step beyond, to provide a system with more flexibility (in case there is a payment assistance balance and in any given month the household cannot make its proportionate payment), while encouraging customers each month to pay the monthly share if they can.

Recommendations:

- Accordingly, we recommend that the utilities take up this problem internally and see if there is a way to move forward.
- Also, that the Welfare and Housing divisions consider calling a second conference meeting on this topic to see if a way ahead can be further outlined.

If one utility, even a small one, were to offer to try a coaching approach with their customers or with a pilot sample of customers we could see how that would work out in material practice and if the real benefits are enough to support the approach.

**IX. APPENDIX 1. SFY 2004 RECOMMENDATIONS**

**A. Overall Recommendations**

There are no new recommendations in this area. However, there are three recommendations from the SFY 2003 Evaluation that we want to re-emphasize.

- (1) The SFY 2003 Evaluation contains a recommendation to treat the Public Utility Commission administrative costs outside the administrative costs of the Fund for Energy Assistance and Conservation budget. This is because the Commission responsibilities are for collecting funds, not for program. In addition, it is recommended to raise the overall administrative cap for program (including Welfare Division, Housing Division, and Governor’s Office) to 10% as a “best practice” consistent with the parallel federal program and with best practice in to other states. This recommendation is shown in Table 24.

<b>Recommended Funding Allocation</b>			
<b>Responsibility Area</b>	<b>Current</b>	<b>Proposed</b>	<b>Net Change</b>
<b>Collection of UEC (UEC)</b>			
<b>Public Utility Commission</b>	3.0000%	2.0000%	-1.0000%
<b>Subtotal, Collection</b>	3.0000%	2.0000%	-1.0000%
<b>Program Administration (FEAC)</b>			
<b>Governor's Energy Office</b>	0.0000%	2.0000%	2.0000%
<b>Welfare Division Admin.</b>	2.1825%	5.4000%	3.2175%
<b>Housing Division Admin.</b>	1.4550%	2.6000%	1.1450%
<b>Subtotal, Administration</b>	3.6375%	10.0000%	6.3625%
<b>Program (FEAC)</b>			
<b>Welfare Division</b>	70.5675%	65.0000%	-5.5675%
<b>Housing Division</b>	22.7950%	22.0000%	-0.7950%
<b>Housing Repair Fund</b>	0.0000%	1.0000%	1.0000%
<b>Subtotal, Program</b>	93.3625%	88.0000%	-5.3625%
<b>Total</b>	100.0000%	100.0000%	0.0000%
Note: Entries in the table are percents of the yearly UEC.			

**Table 24: Recommended Funding Allocation**

While the legislative intent in “capping” administration was a good one, the specific formula for calculating administrative percentages happened to be set

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too low in NRS 702. From an evaluator's perspective, both the Welfare Division and the Housing Division need somewhat more for administration to insure adequate program control. This is one of the most effective things that can be done to strengthen the program within its existing overall budget.

Using the 10% federal precedent and the 10% "best practice" from other states would provide for the necessary resource. While the provision for outreach, program design, and evaluation outside the cap was a very useful innovation, some states had no cap on administration for the start-up period. In a way this is a "chicken and egg" problem and for the Welfare Division it is important to have the staff to be able to meet the program objectives. For the Housing Division (see that section) dollars would be much more effectively spent in Nevada if the additional technical position could be authorized.

- (2) For the SFY 2004 evaluation we also reaffirm the SFY 2003 Evaluation recommendation that the Welfare Division Accounting section and the Commission Staff responsible for the collection function re-establish the quarterly "true-up" meetings that existed at the start of the UEC collections, and continue to meet quarterly.
- (3) In the SFY 2003 evaluation, and again in the SFY 2004 evaluation (Section II, E, Number of Eligible Households; F, Another Approach to Need – Self Sufficiency vs. Percent of Poverty; G, Comparison of Alternative Eligibility Levels; and H, Summary) eligibility is reviewed. The point of the review is that the federal calculation of the "poverty level" is so far out of calibration as not be valid, as indicated by the shift to 150% of poverty in Nevada, 175% in New Jersey, and 250% or 275% for some program components in other states. It is really 250% today that corresponds to the 100% in 1965 and "self-sufficiency income" is a better metric than "federal poverty level." However, we recommend that eligibility be raised towards 250% of poverty in a conservative first step to sixty percent of Nevada median income. As shown in Table 3, Page II-12, this would correspond to 200% of poverty for a family of one to 156% for a family of eight. Then it might be useful to run the program at that level for three years and assess when to move up another step.

### ***B. Housing Division Recommendations***

- (1) The primary recommendation in this area is to add a Technical position to the staff. This position would take over the training function and some inspection functions and it would add to the effectiveness of the program at a small cost since most of the dollars that would fund this position are now spent yearly on out-of-state consultants (See Chapter VI, Section I).
- (2) "Gap" funding from Sierra Pacific is currently provided to weatherize homes between 150% and 200% federal poverty level. Both southern Nevada

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agencies had waiting lists for households in this poverty range because they had run out of Gap funds and these households were over income for UEC funds. Especially in southern Nevada, increasing the income eligibility to use UEC funds would be helpful because the Area Median Income (AMI) is higher than in other areas of the State. An AMI of 60% is equivalent to about 200% poverty level in this area. Increasing the eligibility to 50 or 60% AMI would allow agencies to treat more homes, especially if Gap funding is also available to leverage.

- (3) Downloads from the Welfare Division should always include customer account numbers to support identification (please Chapter VI, Section F).
- (4) A repair fund should be established (please see Chapter VI, Section H).
- (5) Cost-effectiveness should be coordinated (please see Chapter VI, Section H).
- (6) Staff persons at the various Subgrantee offices have varying levels of experience using databases. While all the Subgrantees appreciated the changes to the BWR database, some felt they could not fully utilize the reporting functions without some training or instruction. We recommend training on the use of the BWR database reporting functions be made available to agencies.
- (7) Agencies all report good communications with Housing, finding staff accessible and responsive. Still, there were mixed reactions to the frequency of meetings with the State. These meetings are designed to share information between agencies, the inspection contractor and the State. It was suggested the meetings be increased to quarterly meetings and include a half day with administrators and a half day, or more as needed, with contractors, Housing, and the inspection firm.

### ***C. Welfare Division Recommendations***

- (1) Continue to move towards conversion of contract staff positions to Civil Service status. This is essential to hold on to staff and for program control. If it is not possible to move fully in this direction, then convert the most essential positions. See Chapter VII, Section H.
- (2) Convene a second conference meeting on payments to further explore the relation of payment counseling, budget billing, and pro-ration of the Fund for Energy Assistance and Conservation payments for FEAC amounts over a set amount. See Section VIII.

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***D. Utility Recommendations***

- (1) We recommend that the utilities take up payment counseling/equal billing/and pro ration of FEAC amounts problem internally and see if there is a way to move forward. See Section VIII.

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## **X. APPENDIX 2. SFY 2003 SUMMARY OF RECOMMENDATIONS**

This is a summary of recommendations from the SFY 2003 Evaluation. Page and section references are to the SFY 2003 Evaluation.

### **A. *Statutory Recommendations***

- (1) Change the statutory cap on the administrative costs for the Public Utilities Commission from (3%) to (2%) of the UEC. (Section I, Page 2)
- (2) Place the administration costs for the Public Utilities Commission outside the administrative cap for the programs. Fund administration and collection is a separate work and different in kind from the work of providing services using the Fund for Energy Assistance and Conservation (FEAC) to deliver payment assistance and weather assistance and conservation services. This factual difference in works should be recognized in statute. (Section I, Page 2 and Footnote 6)
- (3) Change the total cap for the Public Utilities Commission, the Welfare Division and the Housing Division from a total administrative cap of 6.6375% of the UEC to a combined total cap of 10% of the UEC, leaving other provisions unchanged. (Section I, Page 2; see also entire Section VIII, Best Practices)
- (4) Move the eligibility level for program participation upwards from 150% of poverty, to 60% of Nevada household energy burden. (Section I, Page 3; Section III, Page 8, "Eligibility Level"; also see Table 1 at Section II, Page 5; and Appendix A)
- (5) That the calculation of assistance be based on the actual customer bills, which includes fixed (customer charge) portion of utility bills and the variable (commodity charge) portion of energy bills. As is currently the case, supplementary fees or penalties would not be included. (Section I, Page 2; also see Appendix B)
- (6) Task a position in the Governor's Energy Office. (Section I, Pages 3 &4)
- (7) Provide provision for flexibility for the Welfare Division to designate additional funds for the Housing Division when this is jointly agreed between both Divisions. The level of activity across years should be sustained and not reduced, but slowly expanded as the UEC collection amount slowly grows. (Section VI, Page 17; Section VII, Pages 19 & 20)

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## **B. Welfare Division Recommendations**

- (1) The Welfare Division should move towards converting the positions that deal with energy assistance from contract worker status to Civil Service, providing opportunity for current staff to move to Civil Service where possible and consistent with Civil Service provisions and regulations. At least five of the positions should be converted. (Section VII, Page 14)
- (2) Based on the SFY 2003 implementation and performance, State Welfare Division should adequately fund development of the computer systems, taking a more client oriented approach to meeting the needs of LIHEA Program Manager and Officer. Programmers dedicated to LIHEA should be assigned or hired. (Section VII, Page 12)
- (3) That the Welfare Division Accounting section and the Commission re-establish the quarterly “true-up” meetings that existed at the start of the UEC collections because it has become apparent that there are very small differences between the numbers maintained by the Commission and the numbers maintained by the Welfare Accounting Section in DAWN. (Section V, Pages 8 & 9)
- (4) The Welfare unique identifier, the UPI Index<sup>80</sup>, and the utility account numbers (sometimes two) should be included in the download to Housing. With this information, the weatherized homes that also receive Welfare LIHEA program assistance can be easily identified for analysis. Housing should broaden the download criteria, below a FAC benefit of \$600.<sup>81</sup> (Section VI, Page 26)

## **C. Housing Division Recommendations**

- (1) There should be a staff of at least four people to oversee the WAP effort that would include two significant new positions; a Technical Officer and a Program Research Assistant. (Section VI, Pages 36 & 37)
- (2) Providing the weatherization work effort with access to a Housing Repair Fund that could cover necessary home repairs that would be outside the UEC guidelines. A significant problem encountered in the field installation effort is old rural homes that do not meet current architectural code. (Section VI, Page 17; Section VI, Page 45)

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<sup>80</sup> The UPI Index number is unique to the client and is used in all Welfare Division-programs where the client receives services.

<sup>81</sup> A Work Order was entered in March 2005 to include the recipient’s UPI and the utility account numbers in the automated monthly transfers. This will greatly facilitate evaluation data requests to the utilities.

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- (3) The per-home funding limit should be reviewed and raised if an additional designated fund for housing rehabilitation can be made available. In addition, the evaluation concurs with the Housing Division policy of implementing a control tool to cap weatherization dollars per home. (Section VI, Pages 16 & 17)
  - (4) Liability insurance should be created as a separate budget category, outside the administration category and cap. (Section VI, Page 18)
  - (5) A one-time audit of the subgrantees should be conducted to establish if the 10% administrative cap is realistic or should be changed. (Section VI, Page 18)
  - (6) A protocol should be set up so that all revisions include a cover page that lists all changes made, including the page number and section changed. (Section VI, Page 19)
  - (7) Each job done by Housing should have a unique number. (Section VI, Page 30)
  - (8) The utility account numbers that qualify the client for FEAC funded weatherization should be input on the form. This data was not required in SFY 03 and only exists in hard copy in the file, if at all. (Section VI, Page 30)
  - (9) Number fields in the forms filled by subgrantees should always be filled, even if it a 'zero' quantity. (Section VI, Page 30)
  - (10) The agencies should check the client application and BWR against the Housing list of clients with a fixed annual credit of \$600 or more before checking the high energy use box and/or using it to prioritize the order of weatherization jobs. (Section VI, Page 31)
  - (11) The BWR should be changed to allow more choices for siding and foundations, attic existing insulation levels, provide more spaces for notes, more standardized options for certain fields, have internal checks of inconsistent data and have a checkbox for 'combustion appliance present' to remind weatherization technicians to perform the appropriate tests. (Section VI, Pages 31 & 32)
  - (12) Demand-Side Management Funds should be developed and made available both as an energy use component and a separate demand component to this funding because the residential weatherization work creates both values for the utilities. (Section VI, Pages 45-46)
  - (13) Screen doors often need to be replaced after work is done to a home, but it is not currently covered. If the screen door could be justified as an energy

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measure, the problem could be solved. However, since it is not, this cost would be an administrative need, that is, an addition to program overhead. (Section VI, Page 46)

- (14) The Housing Division should continue to work with stakeholders and advocates in the area of alternative energy sources. With the growing capability of community-based organizations, it may be that a way can be found to combine an organizational framework, and ownership framework, and a service capability to make these approaches completely workable. (Section VI, Pages 46-47)
- (15) Funding for Housing should be continued, and slowly increased over the years. The continuity of funding without “ups” followed by “downs” is important. (Section VI, Page 47)

#### ***D. Evaluation Recommendations***

- (1) Modify the plan for evaluations to take account of the lag problem with parts of the analysis dependent on utility supplied customer information system data. This will mean that evaluation reporting will need to lag by one year, similar to the way that federal Weatherization Assistance Program reporting always lags by one to two years. Thus, the SFY 2004 evaluation report will contain the SFY 2003 quantitative analysis of utility consumption and energy savings data; the SFY 2005 evaluation report will contain the SFY 2004 analysis, and so on. (Section VI-38)
- (2) Modify the plan for evaluations to take account of constraints in the utility data systems. To work around the constraints, the evaluation for each State Fiscal Year should begin in December of that year, rather than the following July. The SFY 2005 evaluation would start in December 2004; the SFY 2006 evaluation would start in December 2005, and so on. (Section VI-39).
- (3) The next evaluation (for SFY 2005) should resolve any residual problems of expenditure numbers reported by the Housing Division and the numbers in the DAWN system. The discrepancies are not large enough to result in any difference in substance in evaluation results but the source of these differences should be resolved (Section V-9, discussion of Line 39).

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