

**STATE OF NEVADA HOUSING DIVISION  
SERC: 2010-2012 STATE PLAN (Final)**

**U.S. DEPARTMENT OF ENERGY  
Sustainable Energy Resources for Consumers (SERC)  
(January 1, 2011 – March 31, 2012)**

440.14(a) NOTICE OF PUBLIC HEARING (See ATTACHMENT A)

Under EISA Section 411(b), \$90 million of Recovery Act funds were made available to expand States existing Weatherization Assistance Program to include sustainable and renewable energy resources. On June 8, 2010, the US Department of Energy invited WAP Grantees to submit projects on behalf of their local weatherization agencies to be considered for SERC funding.

The State of Nevada Housing Division received **\$6,962,049** in additional funding to implement SERC projects with all the proposed subgrantees. Funding per service provider is detailed below.

440.14(b) FUNDING FOR SERVICE PROVIDERS (SUBGRANTEES)

**January 1, 2011 – March 31, 2012**

HELP of Southern Nevada (HELP)	\$4,386,091
Community Services Agency (CSA)	\$1,002,535
Rural Nevada Development Corporation (RNDC)	\$ 438,609
Nevada Rural Housing Authority (NHRA)	\$ 438,609

Per NHD policy, subgrantee funding was based upon the percent of the States total population served by each agency.

440.14 (c)(1) PRODUCTION AND EXPENDITURE SCHEDULE (See 440.14 (c)(5))

440.14(c)(3) ALLOWABLE MEASURE TO BE DONE

The program's subgrantees will be responsible for the installation of the following measures:

1. Solar Water Heater (20KW or smaller)
2. In home energy monitoring displays (whole house monitors)
3. Energy Recovery Ventilators
4. Ultra Cooling Systems
5. Photovoltaic (60KW or smaller)
6. Wind Technologies (20KW or smaller)
7. Geo Thermal Heat Pumps and Energy Exchange (5.5tons of capacity or smaller)
8. Heat Pump Water Heaters
9. Solar Air Collectors

Homes receiving SERC funds should have received weatherization assistance in either a prior program year, the current program year, or will be weatherized prior to the installation of any SERC measures. Alternatively, the subgrantee and/or homeowner will need to demonstrate that the home meets weatherization standards to receive energy efficiency improvements under this SERC grant. The SERC funds enable NHD and its subgrantees to complete the above approved measures in residences occupied by households with incomes up to 80 percent of area median income, adjusted for family size. As NHD and its subgrantees only provide weatherization services to households with incomes at or below 200 percent of poverty through the Weatherization Assistance Program, NHD will work in conjunction with NV Energy to provide each subgrantee with a regionalized list of moderate income homes weatherized.

NHD has budgeted and recommends each subgrantee complete at least four (4) larger scale demonstrations projects. Each demonstration project should strive to reach the maximum funding allowance per unit of \$30,000 by utilizing any of the allowable SERC measures.

Projects utilizing Photovoltaic, Wind Turbine and Geo Thermal Heat Exchange technology are subject to NHD review and approval prior to subgrantee approval and installation. It is each subgrantees responsibility to provide NHD with a specific site proposal demonstrating the technology will operate effectively in the project's location.

A final inspection of all installed measures will be performed by the subgrantees' staff on each home receiving SERC Funds. The Housing Division will, for each subgrantee, inspect a minimum of five percent of the homes in which SERC measures are installed.

40.14(c)(4)

#### ESTIMATE OF AMOUNT OF ENERGY CONSERVATION

Energy usage and subsequent savings can be attributed to the various retrofitted measures as well as changes in occupant behavior. Based upon NHD and subgrantee research, the average savings per measure implemented on a single family unit is as follows:

1. Solar Water Heater  
Estimates show that the installation of solar water heating system can save a single household 50-85 percent off the household's annual water heating bill.
2. In home energy monitoring displays  
Although in home displays do not provide a direct energy savings, they will encourage small changes in occupant behavior, which can add up to a substantial savings.
3. Energy Recovery Ventilators  
Energy recovery ventilators recover 70-80 percent of all ventilated air.
4. Ultra Cooling Systems  
The annual average cost to run an Ultra Cooling System is \$643, compared to \$5,430 with a traditional air conditional unit.
5. Photovoltaic (60KW or smaller)  
The installation of a Photovoltaic system will greatly reduce the client energy cost, and in some instances it may produce a 100 percent energy cost savings.

6. Wind Turbine (20KW or smaller)  
Micro-Generation Wind Turbines and Energy Balls are estimated to generate 15 percent of the annual electricity need for an average household.
7. Geo Thermal Heat Pumps (5.5 tons of capacity or smaller)  
Geo Thermal Heat Exchange Systems generally operate at half the cost of natural gas and electric air conditioning and at about 1/4 the cost of a propane system.
8. Solar Air Collectors  
The system reduces the consumption of conventional energy and generates significant cost savings.
9. Heat Pump Water Heaters  
Installing heat pump water heaters can save a single household up to \$427 annually.

\*The above are estimates. Actual energy savings to any household may vary.

440.14(c)(5)

AREAS TO BE SERVED

The state's 2010-2012 SERC Program will provide assistance to four general areas of the state: 1) the **Western** service area is comprised of the following counties: Carson City, Douglas, Lyon and Storey counties. 2) the **Eastern** service area is comprised of Churchill, Mineral, Humboldt, Pershing, Lander, Elko, White Pine, Esmeralda, Eureka, Lincoln and Nye counties. 3) **Washoe County**, and 4) **Clark County**.

Listed below are the service areas, the number of households (units) scheduled to receive SERC funds and the subgrantees proposed with the ARRA 2010-2011 SERC Program.

Service Area	Eastern Rural	Western Rural	Washoe County	Clark Co.	Statewide
Total Units	37	37	84	366	524
Allocation	\$438,609	\$438,609	\$1,002,535	\$4,386,091	\$6,265,844
Labor Source	Contractor	Contractor	Contractor	Contractor	
Subgrantee	RNDC	NRHA	CSA	HELP	

Goals are based upon the \$12,000.00 average cost per unit established by the Department of Energy. If the average cost per unit does not meet or exceed the established cost per unit average, additional units may be completed to fulfill the subgrantees total allocated funds.

A minimum of 20 percent of each subgrantees total number of units must be moderate income as defined in section 440.14(c)(6)(xiii).

440.14(c)(6)

THE MANNER IN WHICH THE STATE PLAN SHALL BE IMPLEMENTED

The State Plan has been drafted in accordance with the U.S. Department of Energy's Regulations stated in 10 CFR 440.14.

The Subgrantees primary responsibilities are to provide program outreach, client education, determine client eligibility, conduct energy assessments, provide various SERC measures, and to ensure the satisfaction, health and safety of the program's recipients. Outreach efforts will be coordinated with Nevada's Welfare Division, the utility companies and other interested private/public entities to ensure program compatibility with other funding sources. NHD will also be working with other governmental and non-profit agencies responsible for administering low income housing and energy related programs and or projects.

It is the subgrantees responsibility to provide each client with the appropriate education needed to operate and maintain any SERC technology installed in their home. Each client should be informed prior to installation of any SERC technology any expected annual maintenance cost for operating the unit as well as its life expectancy.

Administrative cost at the subgrantee level is not to exceed 5% (not included in the administrative cost are labor, materials, insurance, vehicles, equipment, warehouse rent, transportation, etc.).

A maximum of 10% of the subgrantees total program operations funds can be used on staffing.

The Nevada Housing Division will be responsible for providing program oversight, ensuring compliance with state and federal laws/regulations as well as monitoring subgrantee performance. For existing subgrantees, a minimum of 5% of the households receiving SERC funds will be inspected by the Housing Division's staff. Subgrantee production and expenditure levels are monitored on a monthly basis.

440.14(c)(6)(i)

ANALYSIS OF THE EXISTENCE AND EFFECTIVENESS OF SUBGRANTEE WEATHERIZATION PROJECTS

All approved subgrantees have met the requirements for subgrantees outlined in the US Department of Energy's Sustainable Energy Resources for Consumers grant guidance issued June 8, 2010.

440.14(c)(6)(ii)

METHOD USED TO SELECT AREAS TO BE SERVED

For 2010-2012, all counties within the state will be included in the program's service area. The service areas proposed for the 2010-2012 program year were based on the following: the estimated number of eligible households located in each county, and the availability of federal funds. Funds were distributed proportionate to the relative number of low income households residing in each of the state's counties.

440.14(c)(6)(iv) AMOUNT OF NON-FEDERAL RESOURCES APPLIED TO THE PROGRAM

No non-federal funds will be applied to the ARRA 2010-2012 SERC Program.

440.14(c)(6)(v) AMOUNT OF FEDERAL RESOURCES OTHER THAN DOE WEATHERIZATION FUNDS

No additional federal funds will be applied to the ARRA 2010-2012 SERC Program.

440.14(c)(6)(vi) AMOUNT OF DOE GRANT FUNDS

The amount of DOE funds allocated to Nevada's Sustainable Energy Resources for Consumers Program is: **\$6,962,049**

440.14(c)(6)(vii) AVERAGE COST PER DWELLING UNIT SERC Funding

To ensure compliance with EISA Section 411(b)(2), DOE limits statewide average cost per unit to \$12,000 and limits any individual expenditure per unit to a maximum of \$30,000. In instances where a project will exceed the maximum allowable expenditure, subgrantees may leverage other NON-DOE funds available to complete the project.

440.14(c)(6)(viii) PROGRAM OPERATIONS

A maximum of 10% of the subgrantees total program operations funds can be used on staffing.

440.14(c)(6)(xi) PROCEDURES FOR DETERMINING THE MOST COST-EFFECTIVE MEASURES IN A DWELLING UNIT

NHD has determined that all approved SERC measures listed in 440.14(c)(3) have met the requirements of a general cost-benefit analysis.

On a case-by-case basis, health and safety measures or related weatherization assistance program measures may be approved by NHD if necessary to complete the approved SERC measures. In no instance may these additional expenses exceed 10 percent of the SERC investment in the unit of the maximum investment allowable per unit.

440.14(c)(6)(xii)

DEFINITION OF "LOW INCOME" HOUSEHOLD

NHD defines "low-income" as a household whose total annual gross income is at or below 200% of the national poverty income guidelines established by the Office of Management and Budget.

440.14(c)(6)(xiii)

DEFINITION OF "MODERATE INCOME" HOUSEHOLD

NHD defines "moderate-income" households as a household with an income at or below 80% of area median income as defined by the US Department of Housing and Urban Development and adjusted for family size.

440.14(c)(6)(xiv)

AMOUNT OF FEDERAL FUNDS TO BE USED AND HOW THEY WILL BE USED TO LEVERAGE NON-FEDERAL STATE WEATHERIZATION FUNDS

The 2010-2012 ARRA funds will not be used to leverage additional sources of program funds.