

**American Recovery and Reinvestment Act
Weatherization Assistance Program**

**Connecticut State Plan
&
Application**

May 2009

**The Honorable M. Jodi Rell
Governor of Connecticut**

Proposed by:

**The Connecticut Department of Social Services
The Honorable Michael P. Starkowski
Commissioner**

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I. ARRA WEATHERIZATION APPLICATION AND PLAN

As a result of the American Recovery and Reinvestment Act of 2009 (“ARRA”), the State of Connecticut, Department of Social Services (“DSS”), the designated state grantee for the federal Weatherization Assistance Program for low-income people (“WAP”), will receive from the federal Department of Energy (“DOE”) additional funding in the amount of **\$64.3** million. These funds are temporary in nature and must be spent over a three-year period, beginning April 1, 2009 and ending March 31, 2012.

The ARRA funding is meant to stimulate the economy by creating new weatherization training programs and projects that will lead to new and sustainable green technology jobs. Connecticut anticipates weatherizing approximately 7,500 units.

Up to 10% of the funding (\$6.4 million) may be used for administrative purposes. From this amount, 5% (\$3.2 million) may go to the subgrantees to oversee the operation and implementation of this program. In addition, although up to \$11.8 million of the total funding may be used for training and technical assistance activities, if the state determines that there is already adequate funding to meet the state’s training needs, this money may also be used for weatherization activities.

All funds must be spent in accordance with the DOE’s regulations governing the WAP, which are found at 10 CFR § 440.1 *et seq.*

DSS will follow all of the applicable federal regulations in its implementation of WAP.

II. General Description and Eligibility Guidelines

The ARRA Weatherization Assistance Program (ARRA WAP) is a temporary 3 year stimulus program designed to create new green technology jobs and assist low income persons to minimize energy-related costs and fuel usage in their homes. Households with incomes falling within 60% of the state median income guidelines are income eligible to receive weatherization services. The definition of “low income” in accordance with §440.14(b) (9)(xii) that the State has chosen for determining eligibility is at or below sixty percent of the state median income guideline, determined in accordance with criteria established by the Director of the Office of Management and Budget, which is the basis for eligibility for assistance under the Low Income Home Energy Assistance Act of 1981.

The Department uses a single application process for both the fuel assistance and weatherization assistance programs. Through this single application process, client eligibility is established for all energy assistance programs administered by the Department of Social Services (DSS). **Priority is given to clients that are particularly vulnerable, such as the elderly, persons with disabilities, families with children under 6 years old and high energy users.** Subgrantee weatherization staff reviews all files to ensure that clients are income and program eligible. A copy of the energy application and income documentation is included in the client’s weatherization file. In certain situations, dwelling units that were weatherized prior to September 30, 1994 may be revisited. A new audit will be performed to determine if other measures that were not done before, need to be addressed. Up to 100 units may be re-weatherized during the program.

In accordance with §440.14(b) (9)(xiii), children are defined as dependents that are under six years old. DSS has chosen to be consistent with the definition used by the Department of Health and Human Services (HHS) for the LIHEAP Program.

The number of eligible dwelling units within the State of Connecticut in which the elderly reside is estimated to be 30,653.

The number of eligible dwelling units within the State of Connecticut in which the persons with disabilities reside is estimated to be 14,739.

In accordance with §440.16(f) low income members of an Indian tribe will receive benefits equivalent to the assistance provided to other low-income persons within the State of Connecticut.

III. Subgrantees

In accordance with 10 CFR § 440.15, DSS, as the grantee agency, must ensure that:

- (1) each subgrantee is a Community Action Agency (“CAA”) or other public or non-profit entity;
- (2) each subgrantee is selected on the basis of public comment received during a public hearing pursuant to [10 CFR] § 440.14(a) and other appropriate findings regarding:
 - (i) the subgrantee’s experience and performance in weatherization or housing renovation activities;

- (ii) the subgrantee's experience assisting low-income persons in the area to be served; and
- (iii) the subgrantee's capacity to undertake a timely and effective weatherization program.

(3) In selecting a subgrantee, preference is given to any CAA or other public or nonprofit entity which has, or is currently administering, an effective program under this part or under title II of the Economic Opportunity Act of 1964.

The State will use the existing community action agency (CAA) network, as well as other entities, to operate the ARRA WAP.

The proposed subgrantees will be based upon the following:

1. CAAs deemed to be in good standing with DSS in regards to CSBG core strengths
2. State Department of Economic & Community Development (DECD)

The proposed ARRA WAP subgrantees are listed below:

- Action for Bridgeport Community Development, Inc. (ABCD) - Bridgeport
- The Community Renewal Team, Inc. (CRT) - Hartford & Middletown
- New Opportunities, Inc. (NO) - Waterbury & Meriden
- The ACCESS Agency, Inc. (ACCESS) – Willimantic
- An additional subgrantee will be chosen for the Greater New Haven service area to ensure that all areas of the state are served.
- Connecticut Department of Economic & Community Development (DECD)

The towns to be served by the proposed subgrantees are listed in Appendix 2

The State reserves the right to alter these service providers and territories if it is determined that a certain area is not being served adequately.

Allocation of funds to the CAA areas is based on the following criteria:

1. Base allocation of \$1,250,000 for ARRA WAP Funds proportionally split between administrative dollars and program dollars.
2. A weighted value of 45 percent is given to the category of agency total materials expenditures, vs. total materials expended;
3. A weighted value of 35 percent is given to the category of agency total units completed; and,
4. A weighted value of 20 percent is given to the category of eligible units, by service area, vs. eligible units statewide, as per census data, less those units previously weatherized.

The period used to determine the allocation of funds is December to November of each year.

DOE has informed Connecticut that another state agency that is involved in the housing issues such as the administration of federal and state funded public housing can qualify as a subgrantee. DSS intends to work with DECD as a subgrantee on the weatherization of the state-financed portfolio of public housing. These properties generally house very low income elders, persons with disabilities and families and have very high energy bills.

DECD will follow the WAP regulations and DSS policies in completing all the work on these units. Household eligibility will be established through the use of the DSS forms and procedures and DECD will keep all documentation on file for on-site review by DSS staff. DECD will enlist the use of contractors to meet the demands of the program. The selection of contractors will be made through a Request for Proposals process. All service providers will be required to follow sound internal management policies and provide skilled workmanship, high quality materials and timely weatherization of units. DSS will evaluate DECD's performance on a continuing basis throughout the contract period.

In addition, we are encouraging the above-referenced CAAs (ABCD, CRT, NO and ACCESS) and DECD to use the other CAAs that are in good standing and have past experience with the WAP; work with low income clientele; and are knowledgeable of the needs in their catchment areas as temporary subcontractors to accomplish the work for which this funding was made available.

These temporary subcontractors include:

- TEAM, Inc. (TEAM) – Derby
- Human Resource Agency of New Britain, Inc. (HRA) – New Britain
- Norwalk Economic Opportunities Now, Inc. (NEON) – South Norwalk
- Thames Valley Council for Community Action, Inc. (TVCCA) – Jewett City
- CTE, Inc. (CTE) - Stamford

IV. Allocation of Funds

DSS proposes to allocate the \$64.3 million as outlined below:

CAAs*	\$ 28,500,000
DOL/WIB/OWC	\$ 3,500,000
CCTC/VOCTECH	\$ 1,500,000
DECD	\$ 20,000,000
Special Projects/Initiatives	\$ 7,100,000
DSS (Admin/T&TA)	\$ 3,700,000
TOTALS	\$64,300,000

* See regional breakdown in Appendix 2

V. Subgrantees and selection of new subgrantees

Existing subgrantees who are in good standing will receive funding each year unless the subgrantee withdraws or DSS monitoring of the subgrantee indicates serious problems. DSS, through its program and fiscal monitoring, examines the overall compliance of subgrantees with regard to expenditure of grant funds, production, work quality and compliance with federal and state laws, regulations, policies, and procedures. If serious concerns arise, DSS makes a determination concerning the subgrantee's ability to continue providing weatherization services. For example, DSS has determined that additional subgrantee capacity is needed to adequately serve the New Haven area. Selection of a subgrantee will be based on public comment submitted to DSS or offered at a public hearing, in accordance with 10 CFR § 440.15(d). In accordance with 10 CFR § 440.15 (a)(3), the DSS will give preference to existing subgrantees that are currently administering an "effective" program.

In order for an entity to qualify as a new subgrantee, it must:

- be a Community Action Agency (CAA) or other public or nonprofit entity
- be experienced and performed weatherization or housing renovation
- be experienced in assisting low-income persons in the area to be served
- be able to undertake a timely and effective weatherization program
- be in legal and financial compliance with requirements and regulations established under state and federal law
- provide a copy of the most recent annual report and the previous year's financial audit with all management notes and findings
- provide a list of the current board of directors or governing body and a copy of the by-laws and other documents concerning the structure and operation of the organization
- provide proof that the organization has been responsive to the needs of the community by citing the programs and services in the energy or human services area that it has implemented or by otherwise demonstrating that the organization has the potential to provide such services in an efficient and responsible manner
- establish that it has special expertise for providing energy conservation programs, by demonstrating its management and outreach capabilities, technical skills and other qualities that render the entity qualified
- establish that it has experience in housing and construction management programs.
- submit a detailed budget and narrative work plan showing how the project will be carried out. The budget should list all personnel, including volunteer and paid staff, who will be associated with the program. The work plan will detail how the project will be implemented. Potential weatherization subgrantees must also show a production and expenditure plan, specifying whether subgrantee crews, subcontractor or a combination of the two will be used. New subgrantees will be expected to meet or exceed the work plan goals they propose.

Temporary Subgrantees

DSS also proposes to retain flexibility to add or change subgrantees, if necessary, to meet ARRA goals. Selection of additional subgrantees will be in compliance with the requirements outlined in 10 CFR § 440.15. Specifically, DSS may add temporary subgrantees to provide overflow capacity and to assist targeted building portfolios, or to provide additional capacity in a specific geographic region. Temporary subgrantees will be solicited through a selection process, and will be chosen to work on targeted building portfolios or geographic areas. Candidates will be selected based upon their qualifications; ability to manage all responsibilities of a subgrantee; and ability to leverage other resources. These subgrantees will participate in the WAP only through the expenditure of the ARRA funds. Temporary subgrantees will be provided with all necessary training, as detailed in the Training Activities section of this plan.

VI. Climatic Conditions:

There are approximately 6000 heating degree days in Connecticut. There is little variation from one end of the state to the other. The WRAP Home check energy audit assigns each town, based on zip code, to either the Bridgeport or Hartford National Weather Station.

VII. Weatherization Measures

Weatherization measures are determined by the WRAP Home Check Energy Audit, which is the only energy audit currently approved by the USDOE for use in Connecticut. The audit software models buildings based on the following three (3) major building types:

Building Type Priorities

Type 1: House with Warm Basement (intentionally or unintentionally heated)

Source of Heat Loss	Weatherization Measures Required
Health and Safety conditions	See H & S and Heating System Guidance
Uninsulated Attic (less than R19)	Insulate up to R38 (see guidance)
Sidewalls	Insulate up to R13 (see guidance)
Partially Insulated Attic (R19 or greater)	Add insulation up to R38 (see guidance)
Basement Perimeter	Insulate sills up to R19
Air Infiltration	Infiltration/Airsealing Measures
Single Glaze Windows	Install storm windows
Primary Window in Poor Condition	Install Vinyl Replacement Windows (see guidance)
Primary Door in Poor Condition	Install Replacement Door (see guidance)

Type 2: House with Cold Basement

Source of Heat Loss	Weatherization Measures Required
Health and Safety conditions	See H & S and Heating System Guidance
Uninsulated Attic (less than R19)	Insulate up to R38(see guidance)
Sidewalls	Insulate up to R13 (see guidance)
Partially Insulated Attic (R19 or greater)	Add insulation up to R38(see guidance)
Uninsulated Basement Ceiling	Insulate up to R19, Insulate Heating Pipes/Ducts, Domestic Hot Water Tank as needed (see guidance)
Air Infiltration	Infiltration/Airsealing Measures
Single Glaze Windows	Install storm windows
Primary Window in Poor Condition	Install Vinyl Replacement Windows (see guidance)
Primary Door in Poor Condition	Install Replacement Door (see guidance)

Type 3: Mobile Home

Source of Heat Loss	Weatherization Measures Required
Health and Safety conditions	See H & S and Heating System Guidance
Primary Door in Poor Condition	Install Replacement Door (see guidance)
Uninsulated Belly	Insulate and seal ducts as needed (see guidance)
Air Infiltration	Infiltration/Airsealing Measures
Single Glaze Windows	Install interior storm windows
Primary Window in Poor Condition	Install Vinyl Replacement Windows (see guidance)
Uninsulated Roof	Blow in insulation and coat roof

VIII. Weatherization Work

THE FOLLOWING PROCEDURES WILL BE FOLLOWED FOR ALL JOBS EXCEPT WHERE NOTED OTHERWISE:

Heating System Guidance

1. Oil-Heating System

a. Clean/Tune/Test and Safety Check

Oil fired heating systems and attached oil -fired hot water heaters, will be cleaned tested, tuned, and then re-tested by a licensed oil burner technician. In conjunction with a clean/tune/test, the technician will have to complete an Oil Burner Combustion Efficiency Report (HUM-120) documenting the Steady State Efficiency of the system. Our objective will be a reading of over 75% efficiency. All single family and multi-family dwellings with their own oil-fired heating system, and all multi-family buildings with oil heat, to be weatherized under the 50% or 66% rule will be tested under the above criteria.

The clean, tune and test shall include:

1. Check for oil leaks;
2. Check chimney base and fuel pipe;
3. Check operation of all controls;
4. Check oil pump pressure;
5. Check barometric damper operation and adjust draft if necessary;
6. Check thermostat operation;
7. Lubricate all motors;
8. Replace filters as necessary
9. Clean pump strainer and inner housing;
10. Replace nozzle and clean electrodes;
11. Clean, brush, and vacuum heat exchanger surfaces thoroughly;
12. Adjust fuel/air for proper combustion.

b. Replacement Oil Burner

If the efficiency remains 75% or less after cleaning and tuning, this measure is allowable. However, the technician must estimate a resulting efficiency above 75% on the combustion efficiency report, and this estimate must be at least 5% higher than the original reading (i.e., if a furnace is tested and the efficiency is 71% and the estimated efficiency of a new burner would be 75%, the new burner should not be installed. The efficiency of the new burner in this unit must be 76% or more).

c. Programmable Thermostats

This modification is optional. It should only be used if the auditor feels that the client will utilize it properly and the lifestyle of the household warrants it.

2. Gas Heating Systems

Dwelling units which have a natural gas or propane fired central heating system will have a Clean/Tune/Test and Safety Check done unless this service has been performed within the previous five (5) years.

This pertains to all single family and multi-family dwellings with their own heating system, and all multi-family buildings to be weatherized under the 50% or 66% rule.

The following procedure must be performed by a licensed technician who must also complete a Gas Combustion Efficiency Report documenting the steady state efficiency of the system.

a. Clean/Tune/Test and Safety Check

1. Check for gas leaks at the main gas valve, the pilot assembly and any accessible line couplings;
2. Check the chimney base, draft diverter and flue pipe for safety problems and check for proper drafts;
3. Check the operation of all controls; including blower speed, fan switch, limit controls and thermostat, and adjust if necessary for optimum efficiency;
4. Clean and adjust the pilot assembly and test pilot safety system;
5. Lubricate all moving parts;
6. Inspect the blower belt and adjust the tension;
7. Inspect the air filter and replace if necessary;
8. Brush and vacuum heat exchanger surfaces and check for evidence of failure;
9. Clean and inspect the burners and adjust for proper flame and combustion; and,
10. Observe at least one complete system cycle and record the final steady state efficiency.

b. Programmable Thermostats:

This modification is optional. It should only be used if the auditor feels that the client will utilize it properly, and the lifestyle of the household warrants it.

3. Emergency Repairs

During the clean/tune/test process the technician may find certain conditions that might make the system unsafe or inoperable. For example the fuel pump or the circulator may be faulty, or the tank may be leaking. Such problems should be handled on the spot if possible, but the additional materials and labor involved must be documented separately on the combustion efficiency report.

Emergency repairs will fall under the health and safety category, which is subject to a \$500.00 average limit for materials.

4. Heating System Replacements

Heating systems can only be replaced if:

- it cannot safely achieve seventy percent (70%) steady state efficiency (with reasonable repairs);
- if the heating system has been red tagged by the gas utility company, and any possible repairs would be too expensive;
- and must also meet one of the following requirements:
 - it screens on the audit within an overall SIR of one or more;
or,
 - can be leveraged with other non-federal funds.

A waiver must be submitted to the State for approval to replace the system and procurement procedures must be followed (a minimum of two price quotes). Energy Star Replacement systems are required for installation. Reimbursement for heating system replacements under the DOE or Leveraging programs will be for the material and labor cost plus \$200 program support payment. Heating system replacements are available for owner-eligible units only, because landlords are responsible for providing dependable heating equipment in rental units. Only one heating system replacement per eligible owner occupied building is allowable. In all cases, ownership must be verified prior to the installation of a new heating system. After the system is installed the contractor must do a SSE test, which must be reported on the BWR.

Water Heater Guidance

Always inspect the tank to determine type of fuel (oil, gas, electric) and venting requirements.

- a. If an unvented gas unit is found, it must be vented by a qualified sub-contractor, before proceeding with insulation or any other measure. This is an allowable health and safety measure.
- b. Always obtain occupant permission before reducing hot water temperature setting to 120 degrees Fahrenheit.
- c. Insulate hot water tank (gas, electric, oil), **if it is not a newer energy efficient model**, to a minimum of R-6.

Gas-Fired Water Heater

1. Inspect for vent damper and do not insulate gas-fired water heaters so equipped.
2. Determine the location of the pressure relief valve.
3. Determine the location of the burner air inlet, pilot light access plate, and drain valve.
4. Do not install insulation on the top plate.
5. Cut the insulation to clear the burner air inlet, thermostat control, pilot light access plate, drain valve, plumbing pipes, and other necessary access plates.

Oil-Fired Water Heaters

1. If the vent pipe is top-mounted, do not install insulation on the top plate.
2. If the vent pipe is side-mounted, maintain the minimum vent connector clearance specified in the latest edition on NFPA 211, Standard for Chimneys, Fireplaces, and Vents.
3. Cut the insulation to clear the pressure relief valve, thermostat control, flame peep sight, burner access plate, drain valve, plumbing pipes, and other necessary access plates.

Post-Installation Procedures

1. Ensure that the insulation is securely attached with staples and white duct tape.
2. Ensure that required clearances are maintained around vent pipes; and insulation has not been installed on the top of oil-fired water heaters, which have a top-mounted vent pipe, or gas-fired water heaters.
3. Ensure that air inlets, access plates, drain valves, temperature control, and pressure relief valves are not covered by insulation.

Replacement Water Heaters

Failed hot water heaters, that cannot be repaired, can be replaced as an allowable health & safety measure in single family dwellings. The dwelling must be owner occupied and prior approval from DSS is required. Fuel switching is discouraged, but will be considered on a case by case basis, if cost effectiveness can be demonstrated.

Requests must be submitted on the standard DSS Waiver Form and procurement procedures (a minimum of two price quotes) must be followed. Previously weatherized units are not eligible, unless they were weatherized during the current program year and the BWR can be revised.

Blower Door Directed Air-Sealing Guidance

All single-family homes, including mobile homes, and all multi-family apartments, must receive a pre and post single point blower door test to document the infiltration rate, in cubic feet per minute, at fifty pascals (cfm 50). Multi point tests are not necessary. This requirement can only be waived if there is justifiable health or building safety concerns. In such cases these concerns must be documented on the BWR. All test results must be documented on the audit data input sheet. Care must be taken to ensure that dwellings are not tightened beyond the minimum ventilation guideline. Refer to the Health and Safety Guidance in this Plan for more detailed information on blower door testing health and safety concerns.

Prioritizing air-sealing work involves an understanding of how air moves through the building envelope. Generally speaking, because of the high exfiltration pressures in the upper areas of the building, due to the stack effect, the attic/living space interface is the area that should be addressed first. Many leakage areas in the attic are actually part of a series leak that may begin in the basement or living area. In most cases, these leaks can be sealed in the attic and there is no need to seal the other areas. Potential leakage areas include: attic accessways, open top plates in interior partition walls, balloon framed buildings, chimney and plumbing chases, kneewall/floor junctions in finished attics and drop soffit ceilings.

There can also be significant opportunities for air-sealing in basements, but care must be taken to ensure that adequate combustion air for appliances is left after the work is done. Refer to the Combustion Safety Procedures in the Health and Safety section of this Plan for more detailed information on checking for adequate combustion air. Large leakage areas in foundation walls,

around interior bulkhead doors, basement windows, plumbing chaseways and bathtub cutouts are of particular concern. Leaking ductwork can also significantly affect the overall air leakage of a dwelling. Refer to Duct Measures section of this guidance for more information.

Opportunities for air-sealing within the living space of a dwelling, besides the obvious include the following: draft-stopper kits for fireplaces, repairing large holes in walls and ceilings, especially those that may be hidden by a suspended ceiling, openings behind built in counters and cabinets, leaky wall outlets and light fixtures.

Materials used must be appropriate to the area being sealed. For example, chimney chases must be sealed with fire retardant materials such as flashing and high temperature caulk. Large openings should be covered with a solid material such as plywood, sheetrock or rigid foam board. These materials must be fastened in place and sealed along the edges. Smaller cracks and holes can be filled with expanding or non-expanding urethane foam or caulk.

Reimbursement for blower door guided air-sealing, unlike other measures that are reimbursed based on actual cost, will be based on an hourly rate of \$105 that will include both material and program support for a two man air-sealing crew.

Of that amount, \$30 will be allocated to the material cost of the job, and \$75 will be allocated to the support cost of the job. The WRAP Audit will determine the maximum amount that can be spent on each job.

The following materials will be included in the hourly rate:

1. Urethane foam
2. Interior caulking
3. Miscellaneous materials for covering large holes such as sheetrock, plywood, flashing, insulation board, cardboard, nails, screws and other hardware.

IX. MATERIAL SPECIFICATIONS

All materials must conform to materials specifications, as they appear in the most recent update of Federal regulation 10CFR Part 440 - Appendix A Standards for Weatherization Materials, published February 1, 2002. Any exceptions are noted below in the Materials and Installation Guidance.

In addition, subgrantees that procure \$10,000 or more of the following products must insure that they are composed of the highest percentage of recoverable materials practicable, taking into consideration competition, availability, technical performance and cost:

Cellulose
Fiberglass
Perlite Composite Board
Plastic Foams and Board

X. Materials and Installation Guidance:

Glass Replacement

All cracked and broken glass separating conditioned space from unconditioned space is to be replaced.

Weatherstripping Doors

The installation of a permanent weatherstrip product which has a minimum effective life of at least five (5) years is required.

Door Sweeps

Rigid or flexible aluminum and vinyl sweeps are required for those doors which separate conditioned living space from unconditioned space.

Electrical Outlet Gaskets

They shall be installed on all outer wall outlets, and interior walls showing evidence of a thermal by-pass. Any commercially available product is acceptable.

Primary Door & Window Replacements

Primary window and door replacements must have a blower door pre- and post- test done on the unit. **In all instances, prior approval must be received from the DSS Energy Services Unit prior to the ordering of windows and/or doors.** The State reserves the right to limit quantities approved.

Primary Door Replacement Guidance

Replacement doors should only be considered for primary doors separating conditioned living space from the exterior. The existing door must be damaged beyond repair.

Replacement doors should not be superior in style or quality to the doors being replaced

All replacement doors should be stained or painted on both interior and exterior sides, including tops, bottoms and jambs.

Storm Window & Door Guidance

Storm windows and doors should be considered when existing storms are damaged beyond repair, or nonexistent. Storm windows should not be considered for multi-glazed, primary windows. Storm doors will require the prior approval of DSS and should not be considered for insulated steel doors.

Primary Window Replacement Guidance

Primary replacement windows should only be considered when the existing primary window is damaged beyond repair, or nonexistent.

Sash Replacement

Sub-grantees shall make every effort to replace damaged wood sash, with the same or comparable materials, if the casing and storm are in good condition. All replacements shall be done in accordance with manufacturer's instructions, and all sash shall be stained or painted on both the exterior and interior sides. New wood sash is not to be installed unless protected by storm windows.

Weatherstripping Windows

This is an optional measure, however, weatherstripping of windows should not take place until primary windows have been repaired where required/needed and properly adjusted.

Window Locks

All primary windows should have window locks installed and properly adjusted where missing or broken.

Primary Door Locks

Door locks should be installed when damaged, broken or missing, on doors leading to unconditioned areas.

Attic Insulation

Floors should be insulated to R-38 and kneewalls should be insulated to a minimum of R-11. Horizontal access hatches should be insulated to a minimum of R-19, and vertical access doors should be insulated to a minimum of R-11. Insulate over fold up stairs.

A 3" clearance should be left around all masonry chimneys, metal flues and recessed light fixtures (except type IC fixtures). If loose fill insulation is used, metal blocking must be permanently attached around the above items to a height of at least 4" above the insulation, or mineral fiber blocking may be substituted if it is at least equal in height to the loose fill insulation and it extends at least 24" in all directions.

If live knob and tube wiring is present it must not be covered with insulation. It is an allowable H&S measure to have an electrician replace live K&T wiring to allow for insulation.

In addition, insulated attics must be vented properly. For insulation with a vapor barrier, there should be one square foot of net free venting for every three hundred (300) square feet of attic floor area. For insulation without a vapor barrier, there should be one square foot of net free venting for every one hundred fifty (150) square feet of attic floor area.

For the purpose of determining venting needs, low-perm ceiling paint will be considered a vapor barrier.

Basement Insulation

Insulation should be recommended for ceilings above cold basements and crawlspaces, where the air temperature is nearer to the outside temperature during the heating season. They should be insulated to a minimum of R-19, providing there is no evidence of insect infestation, decay, moisture damage or excessive ground moisture. If a vapor barrier is used, it must face the conditioned area above. If clients express concern about fiberglass falling over work or laundry areas, they can be covered with an approved building wrap.

If, during the heating season, the air temperature is nearer to the conditioned living space above, only perimeter insulation should be recommended. In many instances, especially during the warmer seasons, the auditor, with input from the client, may have to make a judgment call. **When in doubt, do not recommend ceiling insulation.**

If insulation is installed above crawlspaces or basements with soil floors, a 6 mil (minimum) black polyethylene ground cover must be used as a moisture barrier. In such cases, if there is evidence of excess moisture, the following ventilation guidelines apply:

With a vapor retarder - One sq. ft. of cross ventilation for every 300 sq. ft. of area

Without a vapor retarder - One sq. ft. of cross ventilation for every 150 sq. ft. of area

For joist spaces of 24 inches or less, wire hangers should be spaced 18 inches apart. Over that, wire hanger should be spaced 12 inches apart.

If live knob and tube wiring is present it must not be covered with insulation. It is an allowable H&S measure to have an electrician replace live K&T wiring to allow for the insulation.

Sidewall Insulation

Exterior walls with cavities at least 3 ½" shall be insulated whenever possible with cellulose insulation. The following procedures must be followed before walls are insulated:

1. Check for evidence of water leakage or other moisture problems.
2. Check condition of interior walls.
3. Check the sills in the basement, behind counters and cabinets and other built in fixtures for areas that need blocking.
4. Obtain owner permission

All necessary corrections must be made before proceeding. Access to wall cavities must be made by removal of siding prior to drilling holes through the sheathing. Only

cellulose insulation shall be used because of its superior airsealing qualities. A minimum density of 3 lbs. per cubic foot is required. The following installation method is required:

Tube Fill Method – One hole per floor in the middle of each stud cavity shall be made. A flexible fill tube long enough to reach the opposite ends of the cavity must be inserted into the cavity and withdrawn as the cavity fills. Fire-stops and other obstructions will necessitate additional holes.

All holes must be inspected for wiring or plumbing damage. **Insulation must not be installed in cavities with live knob & tube wiring or in cavities which serve as air ducts, or in cavities which contain water pipes, electric space heaters or recessed radiators. Only non-combustible insulation shall be installed in cavities adjoining fireplaces and chimneys. It is an allowable H&S measure to have an electrician replace live K&T wiring to allow for insulation.** Additionally, on multi-story buildings with platform construction, the band-joint area between floors should also be insulated.

Exterior garage walls will not be insulated. Interior garage walls and ceilings adjoining heated areas must be done instead, if not already insulated. Siding and sheetrock must be returned to their original condition as best as possible. Exposed wood on siding must be painted or primed.

Pipe Insulation

Insulation should be recommended for heat and hot water pipes in unheated basements and crawlspaces where ceiling insulation will be recommended, or already exists. Any cold water pipes in these areas in danger of freezing can also be insulated, but as a health and safety measure. If the ceiling will not be insulated, do not recommend pipe insulation.

Pre-formed urethane with an R-value of at least 3.5 is recommended for all standard diameter hot water pipes. Slits should face down and all joints should be securely taped. Faced fiberglass with an R-value of at least 5 is recommended for all steam pipes. Do not remove or insulate over existing asbestos pipe insulation, and do not insulate leaking pipes.

Duct Measures

Inspect all duct runs, including returns to make sure they are connected. Open returns are a potential health and safety hazard that must be addressed. Also check doors leading to rooms with supply registers, but no returns, to make sure they are under-cut enough. Otherwise the system will not be properly balanced and energy will be wasted. Next, check for leaks around the ductwork seams, using smoke, while the blower is on. Large leaks, especially on the return side of the system, should be sealed with a good quality duct tape or mastic.

Insulation should be recommended for all ducts, including returns, in cold basement and crawlspaces where ceiling insulation will be recommended or already exists. Faced fiberglass with an R-value of at least 5 is recommended. It must be fastened with a good

quality duct tape or other suitable fastener. If the ceiling will not be insulated, do not recommend duct insulation.

Smoke Detectors

Smoke detectors are an allowable health and safety measure. They should be installed near kitchens, in the basement and in bedroom halls. They should be battery operated and U.L. tested and listed to U.L. Standard 217 and comply with NFPA 72. A client signed disclaimer form is required. Otherwise local codes will prevail.

Carbon Monoxide Detectors

CO detectors are an allowable health and safety measure, but only when one or more of the following conditions exists, and the client does not already have one in good working order:

- Fireplace or woodstove
- Vented heat and/or hot water combustion appliance
- Unvented gas cookstove
- Attached or basement garage

Units must be 120 VAC powered and U.L. tested and listed to 2034-98 and comply with NFPA 720. Battery operated only units will not be allowed, but models with battery back up are acceptable. A client signed disclaimer form is required. They are to be installed according to manufacturer's instructions, at about adult eye level and in or near bedroom sleeping areas only. If the bedroom areas in the home are separated, a second unit can be installed. Prior approval from DSS is required if more than two are needed.

Fluorescent Light Bulbs

Any interior incandescent light fixture that is in use at least 4 hours a day can be retrofitted with a utility or WRAP approved fluorescent light bulb.

XI. Summary of Measures

After Health & Safety measures, for which every unit is checked, the most commonly installed measures are:

- Attic insulation;
- Sidewall insulation;
- Airsealing/infiltration measures;
- Basement/crawlspace ceiling insulation;
- Pipe and duct insulation;
- Storm windows/doors;
- Primary windows/doors

The installation of attic/sidewall insulation and attic/basement air-sealing will be the only measures addressed in the ineligible units weatherized under the 50% or 66% Rule. Ineligible duplex units (side by side) will not be eligible for sidewall insulation. If none of these measures are installed in the building, no credit will be given for the ineligible unit(s).

Connecticut has opted not to address cooling measures and refrigerators since they are addressed in our utility funded low-income programs.

DSS encourages use of renewable energy systems, alternative energy sources, and other "green" practices in its housing and energy programs. DECD, through this initiative, also proposes installation of renewable energy systems and green building materials. It is understood that the installation of renewables will only be permitted when consistent with DOE guidance and justified by an overall savings-to-investment ratio of 1.0 or higher, or by other allowable considerations. Any materials used must meet the specifications listed in 10 CFR 440, Appendix A, or otherwise be approved by DOE for use in the program.

XII. Home Energy Audit

As mentioned previously, the federal WAP regulations govern the expenditure of ARRA WAP funds. These regulations require the use of a DOE-approved energy audit, or priority list, to determine measures to be completed on each job. The audit must prioritize recommended measures by savings to investment ratio (SIR). Except for approved health and safety measures, only measures with an overall SIR of 1 or more can be completed.

DSS proposes to use the CL&P WRAP Home Check Energy Audit for the ARRA WAP program, since it is the only energy audit currently approved by the DOE for use in Connecticut. This audit is also supported by all of Connecticut's major electric and natural gas public utility companies, as mandated by section 16a-46 of the Connecticut General Statutes. This statute, requires the companies to provide low-income home energy audits in Connecticut.

DSS may seek DOE approval to amend the current audit or select a new audit to cover multi-family units or to fulfill the requirements of the ARRA program. DSS reserves the right to submit other energy audits to DOE for approval as may become necessary.

XIII. Spending Limits per Dwelling Unit

The federal WAP regulations currently allow an average spending limit of \$6,500 per dwelling unit, (previously \$2,500 per unit), which is adjusted annually for inflation. DSS proposes to use the same average limit for the ARRA WAP. DSS also proposes a maximum spending limit, per dwelling unit, of \$10,000. Within that maximum limit, DSS proposes a maximum health and safety spending limit of \$2,500 per dwelling unit. Waivers will be considered for dwellings needing new heating systems. Each subgrantee will be responsible for ensuring that the \$6,500 average per unit is maintained for the units they weatherize.

XIV. Eligible Dwellings

The federal WAP regulations will govern the determination of dwelling unit eligibility for the ARRA WAP. Generally speaking, with some exceptions, any single family or multifamily building, not previously weatherized, is eligible to be weatherized, as long as it is not for sale, in foreclosure, or in need of major rehabilitation.

Households must meet all income eligibility requirements for the unit to be weatherized. For two (2) through four (4) unit multifamily buildings, at least 50% of the tenants must be income eligible. For larger buildings, at least 66% of the tenants must be income eligible.

XV. Energy Savings

Energy savings for homes weatherized in Connecticut this program year are estimated to be **216,271 MBTUs**. This is based on the optional DOE formula of **29.1 MBTUs** times the total number of homes (7,432) to be weatherized.

XVI. Health and Safety

The purpose of the Weatherization Assistance Program first and foremost is to improve the energy efficiency of the dwellings owned or occupied by low-income persons. Therefore it must be certain that the majority of the funds spent on the program will directly result in energy savings.

DSS is also committed to the health and safety of their clients and to that end, will allow an average of up to \$500 per unit in material costs for energy related health and safety repairs, up to a maximum of \$2500 for material and labor in any one job. Because heating system work is so regulated in Connecticut, and because most of these activities will be related to heating system repairs, which on average are more expensive in Connecticut than the rest of the region, DSS strongly feels that a limit less than that will be ineffective. DSS also feels that with this limit, the overall expenditures will still be cost effective. Subgrantees will have the responsibility of managing these health and safety cost limits.

When Subgrantees encounter health and safety problems that cannot be resolved within the scope of these limited resources, they will have to postpone services until the problems are resolved. In all cases, client education and referral to other programs will be an integral part of this process.

Grantee Health and Safety

All costs related to grantee health and safety will be charged to the state administrative or technical assistance cost category.

Crew and/or Contractor Health and Safety

All workers have a right to work in an environment that does not jeopardize their health and safety, whether in the office, the warehouse or the job-site. For more information on worker health and safety, see "Construction Industry OSHA Safety and Health Standards"(29 CFR 1926/1910).

The following general guidelines apply to all subgrantees and their contractors:

1. Each employer must design and implement a training program so that all new employees are given basic health and safety training before they enter the field.
2. Periodic refresher sessions on various safety topics must be held for all employees on a regular basis. A Training Log must be maintained for these sessions to document the subjects covered and who attended.

3. All workers must be trained on the proper use of power tools and equipment, including precautions to prevent injuries to clients, especially children, who might come into contact with them.
4. All power tools and equipment must be protected with GFCI circuit breakers. Damaged or worn electrical cords will not be used.
5. All workers must be trained on the safe use of ladders.
6. Each vehicle and job site must have a first aid kit and all workers must be trained on administering first aid.
7. All crew workers must wear NIOSH N100 rated respirators, and protective eye wear meeting the requirements of ANSI Z-87.1-1968, when applicable.
8. All weatherization vehicles will be properly maintained and inspected regularly to insure safe operation. A maintenance log documenting all service and repairs must be kept for each vehicle.
9. A supply of potable water will be kept in all work areas and job sites. Portable water containers will have taps and each worker will have their own drinking cup.
10. Each agency must maintain an OSHA Log #300 to document all accidents. This information can then be used to identify trends and eliminate hazards.
11. Each agency must comply with OSHA HAZCOM requirements. Containers of hazardous materials must be labeled with appropriate warnings. Material Safety Data Sheets (MSDS) for all materials must be kept at all job sites, so that they are readily available in case of an emergency.

Client Health and Safety

In general, before beginning any work, the agency must take into consideration the possible effect of work to be performed on any particular health or medical condition of the occupants. Preferably, this information should be obtained during the client interview portion of the energy audit process. If it is determined that any of the work activities would constitute a health or safety hazard, the occupant at risk will be required to leave the home during these work activities, or the work will have to be postponed.

Potential Hazard Considerations

The following potential hazards must be addressed during the energy audit process:

Moisture and Mold – In general, excess moisture can lead to serious health problems. High levels of indoor relative humidity (over 60% for an extended period of time) encourage the increased growth of molds and germs.

Moisture problems can also cause serious structural damage. The sources of moisture problems vary greatly. They can be caused by rain or ground water penetration, leaking pipes, or inadequate ventilation. Client lifestyles can contribute to these problems.

To help determine the extent of any potential problems, a **Moisture Assessment** will be done on all homes. **This assessment will check for the following conditions:**

1. Water stains or mold in the attic, especially on the underside of roof sheathing
2. Evidence of excessive condensation on windows
3. Water stains or mold on exterior wall surfaces
4. Standing water in basements, or stains indicating periodic flooding
5. Basements with dirt floors
6. Unvented dryers
7. Bathrooms or kitchens that are unvented and show signs of moisture problems

If there is evidence of a serious problem, such as excessive mold, strong odors, standing water, or other unsanitary conditions present, such as raw sewage, **weatherization services will be postponed, until the problems are corrected. These problems will be documented on the “Notice of Postponement of Services Form” and a copy will be provided to the client.** In the mean time, every effort will be made to refer clients to other programs that can assist them in eliminating these problems. **The EPA publication “A Brief Guide to Mold, Moisture and your Home” will be used for the purposes of client education**

If there is evidence of mold or moisture Problems that are not considered serious enough to postpone Weatherization services, the client will be alerted to the situation and the areas in question will be documented on the **“Mold Disclaimer Form”** which the client and the landlord, if applicable, will have to sign, before the job can be started. This form will be kept in the job file. Again, the above mentioned EPA guide will be used for the purposes of client education.

Combustion Appliances and Combustion Gases - The following tests must be done, on all combustion appliances, **with the combustion appliance zone set in winter mode**, before any weatherization work is done:

1. A visual safety check and efficiency test, if possible, on all furnaces and boilers. A visual check of all other combustion appliances, including water heaters and wood stoves, must also be performed. **All rooms with a combustion appliance must be checked for adequate combustion air.** There must be at least 50 cubic feet of combustion air for each 1,000 BTU of combustion input. If not, the area will be considered a confined space, and additional ventilation will be required. See form titled ‘Confined Space Options’.

Any unvented gas water heater or space heater must be vented before doing any weatherization measures.

2. Carbon Monoxide (CO) Testing – All clients must be given a copy of the information fact sheet on carbon monoxide poisoning. **All clients without a working CO monitor will be provided with one and educated on its use and maintenance. A signed disclaimer form must be obtained and kept in the job file.**
 - a. Heating Systems - In all oil and gas (propane included), heating systems, and space heaters, test for CO in the exhaust vent of the appliance after steady state combustion efficiency (5-10 minute warm up) has been achieved. Do not perform the test on wood or coal stoves.
 - b. Hot Water Heaters - Same as above
 - c. Gas-on-Gas Stoves - In addition to doing the above, turn oven on and test in the exhaust port with the oven door closed. Do not test top burners.
 - d. Unvented Gas Ovens - Test in the exhaust port with the oven on and the oven door closed. Do not test top burners.

If in any of the above, the CO reading is above 50 PPM, or above 100 PPM in an unvented gas oven, the auditor must contact a qualified service vendor. As long as the ambient air reading is below 10 PPM, the situation will not be considered a problem, and service should be scheduled using routine CTT procedures.

If ambient air reading is 10 PPM or more, the following procedures must be followed:

- **10 PPM – 35 PPM - Contact the client's fuel vendor immediately to alert them of the problem. If the appliance uses oil or propane, and the client does not have a vendor, or the vendor does not do service work, the auditor must immediately contact a vendor that is qualified to do repairs as soon as possible.**
- **35 PPM – 50 PPM - This will be considered a serious situation! Auditor will advise all occupants to vacate the building.**
- **Above 50 PPM – This will be considered an emergency situation! Fire Department must be alerted immediately.**

The client must also be informed of the potential danger and asked to sign a **CO Disclaimer Form**, which the auditor must also sign and date. A copy is to be given to the client and the original placed in the job file. In most instances, a thorough cleaning and/or adjustment of the appliance will rectify the problem. If after servicing, it is determined that the appliance cannot be repaired and should be replaced, refer to the State Plan for guidance as to what appliances qualify for replacement and the procedures to be followed. If replacement is not allowable, notify the client/landlord in writing. Also refer to the Deferral Standards section if such a situation would be warranted.

3. **Backdraft Testing** – Verify proper venting for all combustion appliances using the following test:

- a. Inspect the condition of all flue pipes, draft hoods, diverters and barometric dampers and check for visible signs of backdrafting.
- b. **Set up combustion appliance zone in winter mode.** Then fire up all appliances at the same time including dryers. Allow 5-10 minutes to establish normal flue draft and then do a smoke test on each appliance to verify that sufficient draft exists.

NOTE: Draft will vary according to seasonal conditions and may be stronger in warmer weather due to smaller temperature differences between inside and outside.

Fire Hazards – All combustion appliance areas must be checked for adequate clearance between combustion appliances, flue pipes and any combustible materials. Clients with wood stoves will be reminded about the potential danger of excess creosote build-up in flues and chimneys. **All clients without a working smoke detector will be provided with one and educated on its use and maintenance. A signed disclaimer form must be obtained and kept in the job file.**

Indoor Air Quality

Blower Door Testing Procedures - Because airsealing can affect indoor air quality, the following guidelines must be followed:

1. All data must be recorded on the audit data input form. A copy will be submitted to DSS with the BWR and a copy will be placed in the job file.
2. A Minimum Ventilation Guideline (MVG) must be calculated for each dwelling. The purpose of the MVG is to prevent the over-tightening of buildings. The Lawrence Berkeley Laboratory Model (LBL) will be used, which considers the number of occupants, number of stories, wind shielding and climate to convert the MVG to CFM50. At best it is a guideline only, that assumes no combustion safety problems exist and that moisture generation is normal. The trained auditor will have to raise the MVG if problems are suspected. If there are any indoor air quality problems that cannot be remedied, no airsealing will be done.

The following procedure will be followed to determine the MVG:

- A. Buildings tightness limits for multi-family building where a single unit is to be compartmentalized will be 2000 CFM50.
- B. Buildings tightness limits for single family detached structures and side-by-side duplexes will be determined by the larger of the following two calculations:
 - a. MVG based on 15 CFM natural air flow per occupant will use the following formula:

$$\text{MVG(CFM50)} = 15 \times \# \text{ of occupants} \times N$$

- b. MVG based on .35 natural air changes per hour will use the following formula:

$$\text{MVG}(\text{CFM50}) = .35 \times V \times N/60$$

The following definitions and procedures apply to these calculations:

1. N = LBL Correlation factor from Table 1.
 2. V = The volume of conditioned living space expressed in cubic feet.
 3. The minimum number of occupants will be 5, even if the actual number is less. Add 1 for every resident smoker. Add 1 for every pet over 75 pounds.
 4. When determining the number of stories in the dwelling, count only conditioned living space. Finished basements used as living space will be considered a half story unless over 50% of the walls are exposed above grade. Finished attics used as living space will be considered a half story also unless the volume is greater than 50% of the floor below.
- C. A blower door pretest will be performed and recorded before any airsealing is done. After airsealing is complete, a post-test will be performed under the same pressure configuration as the pretest and recorded. If the pretest is below the MVG no airsealing will be done, and additional ventilation will be considered before any other work is done.

Blower Door Safety Concerns

1. Do not conduct a depressurization test with a wood stove or fireplace burning. Close flue dampers and cover loose ash in the fireplace.
2. Do not conduct a depressurization test when any other combustion appliance is operating. Shut off power or gas before the test is conducted, and make sure appliances are turned back on when testing is completed.

Other Health & Safety Concerns

Asbestos - Inhalation of asbestos fibers can cause lung cancer. Therefore, existing asbestos should not be disturbed during weatherization work. The only exception is asbestos shingles on exterior siding. Removal and replacement is allowed for the purpose of installing insulation. If asbestos insulation covering old pipes and boilers is in good condition, the fibers will not be airborne. In these cases, it will be safe to work in the immediate area. However, if the insulation wrapper is damaged or deteriorated, and it is suspected that asbestos fibers have become airborne, no work is to be done in that area. In these instances, client education will include information about asbestos, and the dangers of airborne asbestos fibers. **Asbestos abatement is not an allowable health and safety measure.**

Dust - Inhaling any kind of dust can be harmful. During weatherization work, especially when blowing insulation, precautions should be taken to minimize exposure to dust. Workers should wear NIOSH, N100 rated, respirators and clients should be isolated from work areas. If this is

not possible, or the client has a history of respiratory problems, they should be removed until after the work is complete.

Radon and Soil Gases - Radon, which is a colorless, odorless gas that comes from decaying uranium, and other dangerous soil gases enter homes by seeping up through the ground. These gases are driven by air pressure differentials, so work should never be done that create or increases negative pressures in basements and crawlspaces. Radon testing and abatement is not an allowable health and safety measure.

Formaldehyde and Volatile Organic Compounds (VOC) - Formaldehyde vapors may be slowly released by some new carpets and building materials such as plywood. If there is evidence of excessive VOC fumes, no airsealing work is to be done.

Lead Paint - Lead poisoning is a serious problem, especially in young children and pregnant women. Household paints used before 1978 contain lead. Paint chips or dust from these paints can be inhaled or ingested, which can lead to lead poisoning. Studies have found quantities of lead dust around windows and doors because of the friction caused from constant opening and closing. Once this dust is airborne, it can settle anywhere. Crews working in these areas, of pre-1978 housing, are to assume that lead paint is present and are required to take precautions to prevent contamination of themselves and clients.

The USDOE Minimum Standards for Lead Safe Weatherization (LSW) that were issued September 22, 2008, will be followed at all times. These precautions will include the following practices:

- Residents, especially young children and pregnant women, are to be kept away from the work area.
- HEPA vacuum or wet-clean the immediate work area, before and after work, to remove potentially dangerous lead paint particles and prevent dust from becoming airborne.
- Household items, within the immediate work area, will be removed, if possible, or covered with plastic. The floor in this area will also be covered with plastic (6 ml minimum thickness) and secured with masking tape. Photo documentation of containment setup must be kept in file.
- When working on exterior surfaces, cover the ground beneath including shrubs, out to 5 feet for every 10 feet of wall height, with 6 ml plastic and secure to the foundation with duct tape. Photo documentation of containment setup must be kept in file.
- All painted surfaces that are to be disturbed (sanding, drilling, cutting, etc.) must be thoroughly misted first.
- Workers must remove or clean footwear and remove gloves, or clean hands, if applicable, before leaving the work area, so as not to contaminate other areas. Disposable coveralls and footwear are recommended.
- At the end of each workday, all plastic coverings must be rolled or folded inward to trap dust and debris then removed from the job site and disposed of along with all other construction waste, which must be bagged and sealed before removal from the job site.

As a client education service, all weatherization clients living in pre 1978 housing that may contain lead paint will be alerted to the dangers of lead paint, as part of the client education process that takes place during the energy audit home inspection. Prior to any weatherization work being done on pre 1978 housing, owners and occupants will be provided with the EPA Pamphlet “Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools”. An adult tenant or homeowner must sign an acknowledgement after receiving this pamphlet. This documentation must be kept in file.

All weatherization workers and sub-contractors that may potentially come into contact with, or disturb, lead painted surfaces must attend a mandatory day-long “Lead-Safe Weatherization Work Practices” training. This training was especially designed for Connecticut’s Weatherization Program and is based on a training program developed by the University of Connecticut Cooperative Extension System and Environmental Research Institute with funding and approval from the Connecticut Department of Public Health, the U.S. Environmental Protection Agency and the U.S. Center for Disease Control and Prevention. Sessions are held annually to train new workers and subcontractors. During the 2009-2010 program year all weatherization crews and subcontractors will attend this training because it will include the new USDOE Minimum Standards for LSW that were issued September 22, 2008.

Building Structure – Building rehabilitation is beyond the scope of the Weatherization Program. When homes in poor structural condition are encountered, weatherization services should be delayed until the dwelling can be made safe for crews and occupants. Clients should be referred to the Department of Housing and Urban Development or other programs for assistance with rehabilitation services. Incidental repairs necessary for the effective performance or preservation of weatherization materials are allowed. These limited repairs are listed in the section of this plan titled “Allowable Health & Safety Measures”.

Electrical Issues – The primary energy related health and safety concerns here are insulating homes that contain live knob and tube wiring and identifying overloaded electrical circuits. When these conditions are encountered or suspected, a licensed electrician should be consulted before any work is done. The electrician’s report must document that all circuits have over-current protection, either by circuit breakers or type “S” fuses. A copy of the electrician’s report must be kept in the job file. Electrical inspections and electrical repairs, including those to prevent circuit overloading and to replace or eliminate live K&T wiring to allow for insulation, are allowable H&S measures.

Refrigerant Issues – Standards relating to the replacement and disposal of existing appliances are not applicable to this plan due to the fact that the State of Connecticut has opted not to include cooling measures in the program.

Building Code Compliance Issues – *All weatherization related work must comply with applicable State of Connecticut Building Codes. Subgrantees are reminded that if a conflict arises between state and local codes, the local code will prevail.*

Allowable Health and Safety Measures:

Any measure listed below is allowable, but subgrantees will be responsible for maintaining an average unit limit of \$500 in materials and a maximum total limit per unit of \$2,500. All health and safety expenditures will be included in the overall average job limits. If the Energy Audit indicates

a Savings to Investment Ratio (SIR) of 1 or more for any of these measures, they will be considered regular program expenditures and not charged to Health and Safety.

A. Heating and ventilation system repairs:

1. A C/T/T of the heating system and minor repairs of all combustion appliances, including gas cook-stoves.
2. The venting of unvented water and space heaters.
3. The installation of smoke and/or carbon monoxide detectors and the installation of any combustion safety equipment or device required by building code.
4. Repairs and balancing of distribution systems (heating pipes and ducts).
5. Repairs or cleaning of chimneys and flue pipes.
6. Repairs or replacement if necessary of leaking above ground oil tanks.
7. The installation of ventilation equipment, including dryer vents, to assure adequate ventilation and moisture control.
8. Replacement of failed hot water heaters, for owner occupied and eligible units only. Prior approval of DSS is required. Fuel switching is discouraged, but will be considered on a case by case basis, if determined to be cost effective.

B. Incidental building and electrical repairs necessary to protect the weatherization investment in the unit:

1. The installation of vapor retarders in basements and crawl spaces to contain moisture.
2. Repairs to roofs, gutters, downspouts, siding and foundations to solve moisture related problems.
3. Electrical inspections and repairs, including replacing live K&T wiring, to allow for the installation of weatherization materials or the installation of proper sized fuses to prevent circuit overloading.
4. Insulation of cold water pipes in crawl spaces or other exposed areas in danger of freezing.
5. Window and door repairs, including glass, glazing, locks, weatherstripping, doorjambes, sill plates/thresholds, pulley repairs, parting beads, side-stops and damaged sash replacement.
6. Paint, stain and sealers (exterior only).

Deferral Standards

The decision to defer work in a dwelling may be necessary in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved. Subgrantees are expected to assist clients, when possible, with finding alternative sources of help. Good judgment must always be used in dealing with these difficult situations.

All serious health and safety problems encountered that will either prevent or delay the delivery of weatherization services will be documented on the **Notice of Postponement of Services** form, along with possible solutions. The client will be asked to sign this form and it will also be signed and dated by an agency representative. If the client is a renter a copy will also be sent to the landlord.

Deferral conditions may include any of the following situations:

1. The client has known health conditions that would be impacted by the installation of insulation or other measures.
2. The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved cost-effectively.
3. The building has sewage or other sanitary problems that would further endanger the client and weatherization installers if weatherization work were performed.
4. The building has been condemned or electrical, heating, plumbing or other equipment has been “red tagged” by local or state building officials or utilities.
5. Moisture problems are so severe they cannot be resolved under existing guidelines.
6. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances and cannot be resolved under existing guidelines.
7. The extent and condition of lead-based paint in the building would potentially create further health and safety problems.
8. The client is uncooperative, abusive or threatening to the auditor, crew, subcontractors or others who must work in or visit the dwelling.
9. In the judgment of the auditor, any condition exists which may endanger the health or safety of the work crew or subcontractor.
10. In the judgment of the auditor, illegal activities are taking place on the property.

CONFINED SPACE OPTIONS

PROVIDE 2 OPENINGS:

HIGH = 12 INCHES FROM CEILING

LOW = 12 INCHES FROM THE FLOOR

1. ROOM TO ROOM

1 SQUARE INCH/1000 BTU'S

2. HORIZONTAL DUCT TO OUTDOORS:

1 SQUARE INCH/2000 BTU'S

3. VERTICAL DUCT TO OUTDOORS:

1 SQUARE INCH/4000 BTU'S

METAL GRILLE = 75% FREE AREA

WOOD GRILLE = 25% FREE AREA

CONNECTICUT WEATHERIZATION PROGRAM

Notice of Postponement of Services

During an audit by a Connecticut Weatherization Provider, _____

Phone # _____, the following health and safety problems were discovered:

Because these problem (s) will prevent us from starting our weatherization work, we have outlined the following required actions. Any help that we can provide will be clearly stated.

The problems listed above do not exclude you from receiving the benefits of the weatherization program. If the above problems can be rectified within sixty (60) days, you will still be eligible for services provided by the Weatherization Program. It will be your responsibility to notify the Provider within the timeframe mentioned above, in writing, that the problem(s) outlined have been eliminated unless the Provider has taken the responsibility for resolving them.

I clearly understand that the condition(s) and problem(s) outlined above prevent my home from being weatherized. I also clearly understand the responsibilities of all parties involved, including my responsibilities and required actions. By signing this document, I understand that I am not giving up my rights to benefits provided by the Weatherization Program, but it is in the best interest of all parties involved that weatherization work not take place until the problem(s) are resolved.

Signed: _____ Date: _____

Provider's Name: _____ Representative: _____ Date: _____

CARBON MONOXIDE

CARBON MONOXIDE is a product of incomplete combustion of fossil fuels.

When combustion appliances such as:

- * Heating Systems
- * Stoves; and,
- * Hot Water Heaters

are dirty, or not tuned properly, they can produce carbon monoxide.

Carbon Monoxide is dangerous because it is invisible and odorless. Victims of carbon monoxide poisoning often have no warning that they are in danger until it is too late!

In small concentrations it can cause flu like symptoms such as:

- * Nausea;
- * Headaches;
- * Chronic Fatigue; and,
- * Dizziness.

Larger concentrations can cause unconsciousness and even death.

**IF YOU EXPERIENCE ANY OF THE SYMPTONS LISTED ABOVE
CONTACT YOUR GAS COMPANY OR OIL COMPANY IMMEDIATELY!**

XVII. Rental Procedures

The State of Connecticut, in accordance with 10 CFR Part 440.22(b) (3), has established procedures to ensure that benefits of weatherization assistance in rental units accrue primarily to the low income tenants residing in those units. Connecticut has opted to include the weatherization of shelters and select public housing units in the ARRA program.

Section 440.22(b) (3) (i) and (ii) - Landlords shall not increase the rent paid by the eligible tenants of a rental unit that has received weatherization services for a period of two years from the date the weatherization work is completed, unless the landlord/property owner can document that the increase is due to factors other than the weatherization assistance performed. Tenants sign and receive a copy of the agreement, and therefore are aware of the conditions of the document. Landlords will also agree to charge the same rent to all successor tenants up to the two year period covered by the Weatherization Agreement.

Section 440.22(b)(3)(iii) - The Rental Agreement specifies conditions regarding evictions and/or rent increases as a result of the weatherization work that is done. If a complaint is filed, the agency will have the property owner/landlord verify that such actions are justifiable. Legal Services is available to assist low income households in ensuring that the agreement is reinforced.

Section 440.22(b)(3)(iv) - Other than Health and Safety measures, weatherization work performed on all dwelling units is based on the Savings to Investment Ratio (SIR) of a DOE approved energy audit. Measures installed must have an overall SIR of one or more, and this restricts the amount of enhancement that may occur.

Section 440.22(c) - The agreement between the local agency and the property owner/landlord covers issues dealing with eviction of eligible tenants from the property. As previously mentioned, the tenant will also receive a copy of the agreement. In signing the agreement, the property owner/landlord also agrees that the property is not, or will not be for sale within six months of the date of the agreement. If the property is listed for sale, no weatherization work will be done.

Section 440.22(d) - The State will seek financial participation from property owners/landlords. Property owners/landlords will be asked to contribute twenty percent (20%) of the material cost toward the weatherization of the eligible rental unit. The maximum amount of the contribution will be \$500 per eligible unit. In buildings weatherized under the 50% or 66% Rule, The owner share of the cost of this work shall be 20% of material costs or a maximum of \$500 per eligible unit, whichever is lower. Property owners who are eligible for weatherization assistance will not be required to make contributions. Under exigent circumstances, the State reserves the right to waive the requirement regarding contributions, on a case by case basis.

Section 440.22(e) - As stated above, Legal Services is available to assist clients who may have disputes with the property owner/landlord regarding eviction or rent increases.

WEATHERIZATION AGREEMENT

This agreement is made and entered into between:

(Legal name of local program operator)

hereinafter referred to as the "Local Agency" and

(Name of Property Owner)

WHEREAS it is in the mutual interest of the parties referred to above to enter into agreement for the provision of weatherization;

AND WHEREAS the local agency, has been awarded a Weatherization Contract, under the "Energy Conservation in Existing Buildings Act of 1976, 42 U. S. C. 6861 et seq., enacted as Title IV of the Energy Conservation and Production Act, Pub. L. 94-385, 90 Stat. 1150 et seq., and amended by Title II, Part 2 of the National Energy Conservation Policy Act, Pub. L 95-619, 92 Stat. 611 et seq., and by the Energy Security Act. Pub. L. 96-294, 94 Stat. 611 et seq., from the State of Connecticut, Department of Social Services (DSS);

AND WHEREAS the local agency has agreed to conduct and implement a program of weatherization assistance, as approved by the United States Department of Energy (USDOE), and the State Connecticut, Department of Social Services (DSS).

IN ACCORDANCE WITH THE ABOVE, THE LOCAL AGENCY AGREES:

- (A) That it will provide weatherization services, as specified by the energy audit within allowable program dollar amounts. In buildings being weatherized under the 50% or 66% Rule, services other than attic and sidewall insulation may be restricted to the eligible unit(s).
- (B) That it will provide these services for eligible weatherization client(s) living at:

(name of street)

(town)

(zip)

THE PROPERTY OWNER FURTHER AGREES:

- (i) To grant permission for the local agency and its authorized representatives to enter upon the owner's property for the purpose of determining, installing weatherization measures, and evaluating the weatherization work provided from the date of execution of this agreement.
- (ii) To grant permission for DSS, USDOE, and the Comptroller General of the United States, or any of their duly authorized representatives, access to the property referred to on page 1, for the purpose of evaluating, reviewing, and making an audit on the weatherization assistance provided by the local agency.

- (iii) To have all recommended measures as specified by the energy audit installed within allowable program dollar amounts, unless the local agency determines that a certain measure(s) should not be done.
- (iv) To accept responsibility for any construction waste, that may contain leaded materials, which will be generated from my property during the weatherization work. Before the waste is disposed, will safely store it so that it is not accessible to others and does not contaminate the ground or area around it.
- (v) And certify that the dwelling is not currently under foreclosure, or for sale, nor will be for sale within six months of the date of this agreement.

FOR DWELLINGS NOT OWNER-OCCUPIED, THE OWNER FURTHER AGREES:

1. That there will be no eviction or removal of tenants, from the date the weatherization work is completed, so long as every on-going obligation and responsibility owed to the owner is complied with.
2. That if the tenant is leasing a low income federally subsidized apartment, then that rental contract agreement shall be in effect.
3. That there will be no increase in the rent paid by the tenants for a period of two years from the date the weatherization work is completed, unless the property owner can document that the increase is due to factors other than the weatherization assistance performed under this agreement.
4. The present rent being paid by the tenant is \$_____.
5. That the same rent will be charged to any successor tenant up to two years from the date of the last signatory, except as specified in number 3.
6. That the owner share of the cost of this work shall be 20% of material costs or a maximum of \$500 per eligible unit, whichever is lower. The local agency will notify the property owner of the final amount and the measures to be installed, based on an energy audit of the dwelling unit.

THIS AGREEMENT SHALL BECOME EFFECTIVE AND BINDING, EXCEPT AS THERWISE STIPULATED, FROM THE DATE OF SIGNATURE OF THE LAST SIGNATORY. For buildings built prior to 1978, signatures of owner/authorized representative and tenant, if applicable, also signify receipt of EPA pamphlet “Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools”.

By: _____ Date: _____
 Owner or Authorized Representative

By: _____ Date: _____
 Tenant/Weatherization Client

By: _____ Date: _____
 Authorized Local Agency Signatory

XVIII. Training & Technical Assistance

To meet the extensive needs of the ARRA WAP, expanded partnerships for training and technical assistance (T&TA) are in the development stages between DSS, CAAs, DECD, Community and Technical Colleges, the Department of Labor, Workforce Investment Boards, the Institute for Sustainable Energy, the Conservation Services Group (CSG) and others, to ensure training and education for the specialized skills and knowledge required for the effective delivery of high-quality weatherization services in Connecticut. We intend to increase training through local and regional implementation across the state by using existing program providers, Workforce Investment Boards, the Community and Technical College network, and where appropriate, the Technical High Schools. The training curriculum and use of approved energy audit materials will be further developed to accommodate the magnitude of need and time requirements of this program.

State and local staff and contractors will be expected to be knowledgeable about the program and will undergo the certification and training required for their positions.

Training and Technical Assistance will be used for the following activities:

- Statewide Lead Safe Training on new DOE minimum standards
- Energy Auditor Certification Training Class (CSG)
- On-site training for crews, energy auditors and subcontractors.
- Mold and moisture detection training
- Annual combustion safety refresher training
- Client education training
- OSHA training for new staff and subcontractors

The core competency training is designed as a two-week training and includes courses in basic competencies, safe work practices, building evaluation, measure installation, final inspection, consumer education, monitoring, program management and training. In addition Crew Worker, Crew Chief, Inspector, Monitor and Auditor certifications and requirements are designed as on-the-job training as well as one- to two-day courses. A component of the training program may be to develop links between persons trained in the above-described coursework to subgrantees and their contractors, as a potential source of hire, similar to Jobs Funnel. It is anticipated that all person working in jobs retained or created by the ARRA WAP will receive some level of training and technical assistance.

In response to the expected demand for more trained auditors to handle the increased number of units that will be weatherized, DSS has already scheduled two auditor certification classes for June and September 2009 on the Home Check Energy Audit (the only audit currently approved by DOE for use in Connecticut.) DSS will also work with other expected program partners to ensure that their staff will be trained to perform these services.

Subgrantees are encouraged to assess training needs and explore T & TA opportunities that would specifically benefit their own staff and/or contractors. Training may also be provided on sustainable energy and “green” technologies and techniques. Requests for these activities require prior approval by DSS.

Ongoing communication and networking among these partners are essential components of the recruitment, training and employment for weatherization work. Monthly Weatherization Directors' meetings are planned. These meetings will be held in partnership with the Weatherization Residential Assistance Partnership (WRAP) and UI Helps, which administer utility-funded programs operated by the subgrantees. Monitoring visits to subgrantees provide additional opportunities for on-site training and technical assistance to ensure health and safety of clients and workers; maximize energy savings; improve program management; and ensure uniform implementation of program policies and procedures. Ongoing on-site training activities will continue at the state and subgrantee program levels.

XIX. Leveraging

The WAP in Connecticut has significant leveraging benefits. In partnership with the WAP, existing subgrantees also operate the utility-funded WRAP and the UI Helps Program. Funding for energy audits also comes from the major utility companies - Connecticut Light and Power, United Illuminating, Yankee Gas Services, Connecticut Natural Gas, and Southern Connecticut Gas Company. WRAP and UI Helps funds may be used for a variety of different activities, ranging from installing additional measures on WAP jobs to serving other low-income clients that do not receive services under the WAP. Additional leveraging of non-federal resources may include labor costs for the replacement of heating systems for WAP-eligible homeowners whose present heating systems need to be replaced.

The ARRA WAP funding provides additional opportunities that will be explored for leveraging resources from other state and local partner programs for weatherization services, employment and training activities, energy conservation and savings. Additional financial and resource leveraging is inherent in the economic stimulus from monies made available to households through energy conservation savings, as well as earnings from jobs created and retained and then spent in the marketplace.

Coordination with other Low-Income Weatherization Programs

DSS proposes to continue to coordinate ARRA WAP activity with other low-income programs to maximize services to eligible households. These other programs are listed below:

- Weatherization Assistance Program
- FOCB Low-Income Heating & Hot Water System Program
- Connecticut Light and Power (CL&P) Weatherization Residential Assistance Partnership (WRAP) Program
- United Illuminating (UI) Helps Program
- Municipal Utility Conservation Programs

XX. Special Projects / Initiatives

DSS is proposing to allocate \$7.1 million of the ARRA funds for Special Project/Initiatives.

Shelters

DOE has determined that weatherization program funds can be used for the weatherization of shelters. In their regulations DOE defines a shelter as a dwelling unit or units whose principal purpose is to house, on a temporary basis, individuals who may or not be related to one another. DOE has further identified that the state may count each 800 square feet or each floor of the shelter as a dwelling unit. It is anticipated that an equivalent of 1,300 units will be weatherized with ARRA funds. Approximately \$3 million will be allocated for the weatherization of shelters. Although \$3 million would allow for the weatherization of approximately 462 units at the average cost of \$6,500 permitted by DOE, it is anticipated that many more units will actually be weatherized due to the number of dwelling units existing in a shelter.

DSS will contract with the CAAs in good standing and will develop criteria to identify the shelters to be weatherized with ARRA funds. Weatherization of these buildings will make them more energy efficient and improve the health and safety of the occupants. It will also result in lower energy bills enabling the shelters to use their limited funds for other services.

Any weatherization work performed on the shelters will be in accordance with the WAP regulations and ARRA guidelines.

Incentive Pool

Subgrantees will be given production goals in their contracts with DSS. Those subgrantees that meet or exceed the production goals will have access to an incentive pool of \$3 million. This performance-based incentive will be made available to existing subgrantees that demonstrate the ability to effectively utilize ARRA funding during the initial program year. Pool funds will be allocated according to a formula which ensures equitable distribution on a statewide basis to those subgrantees that meet the production goals. DSS, in its decision to allocate additional funds, will give consideration to subgrantee capacity so that no subgrantee is provided with funding in excess of the amount that DSS reasonably expects the subgrantee to be able to utilize.

DSS will reserve the balance of the \$7.1million to be allocated on an as-needed basis. Any unused training and technical assistance funds will also be added to this pool as the program progresses.

These additional funds may be provided to other entities, such as the Fuel Oil Conservation Board (FOCB) and the Connecticut Energy Efficiency Fund (CEEF) so that additional units may receive services for which funds were not previously available. These services may include the repair and replacement of heating systems and energy efficient lighting fixtures.

XXI. Program Management

Overview

The ARRA WAP for Low Income Persons is administered by the State grantee, the Department of Social Services. The Weatherization Assistance Program Manager is Carlene Taylor, Program Administration Manager. The Program Administration Manager reports to Pamela A. Giannini, who is the Director of the Bureau of Aging, Community and Social Work Services. The Program Administration Manager is operationally responsible for the Department's Weatherization Assistance Program, which falls under the Division of Community, Energy and Refugee Services. The Bureau of Aging, Community and Social Work Services is under the oversight of the Deputy Commissioner of Programs.

DSS recognizes that there might be challenges in all areas of the program due to large increase in funding for the program that will result in wide expansion of the services that are provided. The state is committed to ensure full compliance in the use of the ARRA funds and will meet these challenges. DSS proposes to add DECD as a subgrantee to administer the weatherization of the state funded public housing portfolio. It will also enlist other partners to oversee training and technical assistance of new staff and ongoing training for all others. The plan outlines the use of the partners and how oversight will be maintained to ensure transparency and accountability of the ARRA funds.

Staffing

A durational project manager will be hired to oversee the operation of the ARRA WAP. Responsibilities will include the planning and statewide coordination of the ARRA WAP and supervision of the state weatherization staff. This position will identify needs for program capacity and training, and will ensure that there is statewide program consistency and adherence to program specifications, rules and regulations.

The person in this position will have daily contact with subgrantees throughout the state and will communicate regularly with national and state funding sources. This position requires the ability to effectively communicate with staff, managers, other state and federal agency staff, local service providers and the public.

This position assures that the complex and varied state and federal procedures and regulations are followed by the state, subgrantees and other partners implementing the program. The durational project manager will provide necessary technical assistance for effective program delivery through the community partner network.

DSS is committed to ensuring that the integrity of the program is maintained and plans on acquiring four additional durational staff to provide oversight and technical assistance to the subgrantees during the ARRA contract period. The staff will be expected to be knowledgeable about the program and will undergo the same certification and training that is required for all subgrantee field staff. Out of these four, two staff persons will be assigned to provide monitoring and technical assistance to DECD.

To meet the requirements of ARRA, DSS expects to acquire two additional durational fiscal staff persons, one of whom would be assigned to the DECD contract.

DSS will acquire a durational Accounts Examiner who will be assigned to the Quality Assurance Division. This person will ensure that the ARRA requirements concerning transparency and accountability are met. The Accounts Examiner will be responsible for auditing financial transactions in the funding and payment cycles, and ensuring that the federal and state Single Audit Requirements are met.

The specific audit responsibilities of this position are itemized in Appendix 4 of this document.

XXII. Administrative Expenditure Limits

Total Administrative expenditures (State and Subgrantee) will not exceed 10% of grant funds. State Administrative expenditures will not exceed 5% of grant funds. This program year, all subgrantees under contract to operate the Weatherization Assistance Program will receive allocations exceeding \$350,000 and therefore will not be eligible to receive an additional 5% in administration funds.

XXIII. Employment Created and Retained

The plan includes new efforts to ensure that weatherization assistance will increase the State's activities related to the development of a "green workforce." These efforts include those aimed at providing skilled workers who subgrantees may hire with the increased funding available through the ARRA.

Some CAAs will be partnering with utility companies, cities and the local community colleges and technical high schools to train persons in "green" technology. One such project will be between ABCD and the City of Bridgeport. In that project, people trained by ABCD to work in the weatherization program will have the necessary skills to enter a private sector, energy-related business and work in jobs relating to lowering dependence on fossil fuels and reducing greenhouse gas emissions and air pollution in the greater Bridgeport area.

As required under the ARRA, the plan describes the State's strategy for the use of ARRA funds. In most respects the plan is consistent with the Weatherization Program Year 2009 plan that was previously submitted for the WAP funding allocations. The plan describes DSS's strategy for adding temporary subgrantees and increasing the weatherization workforce, through coordinated workforce development and training programs, and to utilize ARRA funds in an effective manner within the time allowed.

Coordination among state agencies that administer energy, housing and human service programs has increased significantly and been an integral part of the planning for the expanded three-year program. Some of the agencies and organizations involved include the Connecticut Departments of Social Services (including the Bureau of Rehabilitation Services), Economic and Community Development, and Labor; the Connecticut Housing and Finance Authority; the Office of Workforce Competitiveness; the Workforce Investment Boards; the Institute for Sustainable Energy; WorkPlace, Inc.; the Connecticut Community and Technical Colleges; the CAAs; Jobs Funnel Programs; and the Governor's Office. Detailed plans for program implementation will continue to be worked out in the next several weeks. There are model programs in Connecticut with similar job skill requirements that successfully recruit, train and place individuals in apprenticeship positions and prevailing wage jobs in their region. Additionally, mechanisms for

sustainable jobs and career- ladder opportunities, based on experience and training, are included in the program planning. DSS intends to distribute the ARRA funds in ways that will increase job opportunities and provide specialized training for and access to jobs during this economic downturn. The goal is that these jobs will continue or that the skills obtained through these jobs will be transferable and marketable in the “green” job market of the future.

As previously mentioned, recruitment will target a diverse population – some skilled and some new to the workforce – focusing on low- income individuals, displaced and unemployed workers, persons with disabilities, veterans and older workers. Below is a list of positions that DSS anticipates will be created or retained as a direct result of the additional funding under the ARRA for the WAP:

<u>EMPLOYMENT ESTIMATES – CREATED & RETAINED</u>	<u>3 YR GOAL</u>
Crew Workers/Installers (agency & contractor)	270
Crew Chiefs - Job Site Supervisors	50
HVAC Contractors	25
Energy Auditors	45
Inspectors	30
Intake/Eligibility	60
Client Education Specialists	10
Local Agency Coordinators	25
Technical Monitors - On-site Monitoring/Oversight	15
Program Administration & Desk Monitoring/Oversight	15
Fiscal Administration & Financial Oversight & Audit	24
Trainers/Teachers/Technical Assistance	30
Equipment, Material & Supply Providers & Transportation	25
Operation and maintenance of vehicles and equipment	6
Inventory Control	10
	<u>640</u>

The above numbers, totaling 640, are initial estimates based on the percentage share of funding for Connecticut multiplied by the total anticipated national employment goals for the ARRA WAP. as identified in a DOE presentation on Jan 2, 2009. It includes estimates from DSS. DSS has been working with the Workforce Investment Boards and the Office of Workforce Competitiveness to develop more accurate estimates of the jobs to be created and retained. This information should be available within a short period of time.

XXIV. Grantee Program Oversight

DOE has informed states that they and their subgrantees must ensure the transparency and accountability of the funds available in the ARRA. DSS' current oversight activities, therefore, will need to be increased for purposes of the ARRA.

Subgrantees are required to inspect the weatherization work performed on a dwelling before it may be submitted to DSS for approval and reimbursement. States are required to perform file reviews on 10% of units weatherized and conduct inspections on 5% of completed units or units being weatherized. DOE strongly encourages a higher percentage of the units to be inspected under ARRA funding and DSS intends to perform file reviews on at least 20% of the total number of units weatherized. DSS will complete on-site inspections of at least 12% of the total units weatherized. In addition, comprehensive monitoring will be conducted at a minimum of annually at each subgrantee and its partner agencies. DSS will also provide the same oversight to any partner agency that it contracts with to perform weatherization work.

Field Monitoring

To meet the current needs of program oversight, DSS utilizes two experienced Program Specialists to monitor subgrantee activity. They are assigned to specific agencies on a rotating basis and report directly to the WAP Program Manager. They are responsible for monitoring all aspects of the WAP, including, but not limited to, the following: financial and program management; operating procedures; file reviews; inspection of work in process and completed jobs; procurement procedures; inventory control; operation and maintenance of vehicles and equipment; and, adequacy of coverage of service areas.

DSS is committed to ensuring that the integrity of the program is maintained and plans on acquiring four additional durational staff to provide oversight and technical assistance to the subgrantees during the ARRA contract period. The staff will be expected to be knowledgeable about the program and will undergo the same certification and training that is required for all subgrantee field staff. Out of these four, two staff persons will be assigned to provide monitoring and technical assistance to DECD.

Monitoring visits will be made to each subgrantee or its contractor agency on at least a monthly basis. Regular monitoring visits usually consist of client file reviews and inspections of completed units, to ensure quality of work and client satisfaction. The annual comprehensive monitoring visits are more detailed, and include the broad categories mentioned above. Additional visits will be made to provide training and technical assistance in response to observations from monitoring visits or to provide assistance on new requirements or changes in program operation.

If DSS cannot hire durational staff, it may need to use qualified contractors to conduct monitoring activities and ensure compliance with the ARRA. The graph below indicates the number of file reviews and on-site inspections that will be required based on the total number of units to be weatherized.

Entities	Minimum Goals	File Reviews (20%)	On-site Inspections (12%)
CAAs	3,497	699	420
DECD	2,850	570	342
Shelters	1,153	230	138
Total	7,500	1,499	900

Fiscal Monitoring

A fiscal staff person is currently assigned to the Community Energy and Refugee Services Division to process the monthly financial reports provided by each subgrantee and complete reports for submittal to DOE, DSS and the subgrantees. The fiscal staff person also performs the fiscal monitoring portion of the annual comprehensive monitoring of each subgrantee to ensure adequate financial management control. The procurement procedures are also reviewed to ensure that materials meet federal specifications and are cost effective.

A Building Weatherization Report (BWR) is completed for each unit that is weatherized and inspected and is submitted to DSS with the subgrantee's monthly fiscal report. The fiscal staff person reviews each BWR to check for compliance with the standards of the energy audit, demographic information and the expenditures reported and match back to the fiscal report. To meet the requirements of ARRA, DSS expects to acquire two additional durational fiscal staff persons, one of whom would be assigned to the DECD contract.

Quality Assurance

DSS will acquire a durational Accounts Examiner who will be assigned to the Quality Assurance Division.

ARRA Requirements of Separate Accounts

The ARRA requires that DSS set up separate accounts for all ARRA funding and track all aspects of this program separately from the standard WAP. DSS is committed to doing this and has already initiated these accounts in the CORE system.

Each subgrantee and subcontractor will be required to keep the ARRA funds in separate accounts; any co-mingling of funds will be strictly prohibited. DSS' Quality Assurance Division recommends that any subgrantee or contractor chosen to receive the funds be required to segregate the funds in checking accounts that are completely separate from the regular operational accounts. The ARRA WAP funds should not be co-mingled with any other agency funds. If subgrantees or contractors are unable to adhere to these requirements, they will not be eligible for participation in this program. This requirement will be made a part of their contracts.

The Accounts Examiner will ensure that the ARRA requirements concerning transparency and accountability are met. This person will be responsible for auditing financial transactions in the funding and payment cycles, and ensuring that the federal and state Single Audit Requirements are met.

XXIV. Policy Advisory Council

Members of the Policy Advisory Council were provided the draft ARRA Plan electronically for the review. In addition they are all members or participants of the Low Income Energy Advisory Board (LIEAB) which meets on a monthly basis to discuss energy issues pertaining to the low-income population.

In the fall of 2005, the Connecticut legislature enacted Public Act 05-204 establishing a Low-Income Energy Advisory Board (LIEAB). The charge of the Board is to advise and assist the Office of Policy and Management and the Department of Social Services in the planning, development, implementation and coordination of energy assistance and weatherization assistance programs and policies.

The membership of the LIEAB includes representatives from the Office of Policy and Management, the Department of Social Services, the Commission on Aging, the Department of Public Utility Control, the Office of Consumer Counsel, Operation Fuel, 2-1-1, Connecticut Local Administrators of Social Services, Legal Assistance Resource Center of Connecticut, Connecticut AARP, Norwich Public Utility, Connecticut Petroleum Dealers Association, Northeast Utilities Service Company, Yankee Gas Company, Connecticut Natural Gas Company, Southern Gas Company, United Illuminating and the Connecticut Association for Community Action Agencies.

The next LIEAB meeting will be held on Monday, May 4, 2009, with the ARRA Plan as one of the topics on the agenda. In addition, the state legislatures Energy and Technology, Human Services and Appropriations committees will be holding an informational hearing on the plan.

Members of the Policy Advisory Committee are listed in Appendix 5.

XXVI. Program Planning and Development Workgroups

DSS has also held meetings with the subgrantees, proposed partnerships and various entities to discuss the ARRA plan and the importance of the roles they might play to ensure full compliance, weatherization of units in a timely manner and that transparency and accountability are maintained.

STATE OF CONNECTICUT
DEPARTMENT OF SOCIAL SERVICES

XXIII. NOTICE OF PUBLIC HEARING

THE DEPARTMENT OF SOCIAL SERVICES WILL HOLD A PUBLIC HEARING AT THE TIME AND LOCATIONS SPECIFIED BELOW TO PROVIDE AN OPPORTUNITY FOR CONNECTICUT CITIZENS TO COMMENT ON THE PROPOSED WEATHERIZATION ASSISTANCE FOR LOW INCOME PERSONS PROGRAM STATE PLAN, IN THE AMOUNT OF \$64,310,502 MADE AVAILABLE THROUGH THE AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) OF 2009, PUBLIC LAW 111-5. THE PLAN SHALL COMPLY WITH APPLICABLE LAW INCLUDING REGULATIONS OF THE UNITED STATES DEPARTMENT OF ENERGY, 10 CFR 440, FINAL RULE, ESPECIALLY SECTIONS 440.12 AND 440.14.

THE PUBLIC HEARING WILL ALSO COVER AMENDMENTS TO THE CURRENT STATE PLAN IN THE AMOUNT OF \$5,315,348 IN ORDER TO PARALLEL THE SERVICES OFFERED IN THE PROPOSED ARRA WEATHERIZATION PLAN.

DATE: TUESDAY, MAY 5, 2009
TIME: 10:00 A.M. - 1:30 P.M.

LOCATION #1: DEPARTMENT OF SOCIAL SERVICES, MEZZANINE ROOM 1
25 SIGOURNEY STREET
HARTFORD, CT

THE HEARING SITE IS ACCESSIBLE TO PEOPLE WITH DISABILITIES AND PARKING FOR PERSONS WITH DISABILITIES IS AVAILABLE. PARKING IS ALSO AVAILABLE AT THE STATE LOT ON FOREST STREET (BESIDE HARTFORD PUBLIC HIGH SCHOOL) WITH SHUTTLE BUSES AVAILABLE.

LOCATION #2: THE WATERMARK AT 3030 PARK, 2ND FLOOR LOUNGE
3030 PARK AVENUE
BRIDGEPORT, CT

THE SITE IS ACCESSIBLE TO PERSONS WITH DISABILITIES AND PARKING IS AVAILABLE.

COPIES OF THE "PROPOSED WEATHERIZATION PLAN" WILL BE AVAILABLE AND CAN BE OBTAINED BY WRITING TO THE ADDRESS BELOW. THE PLAN WILL ALSO BE POSTED AT THE FOLLOWING WEBSITE WWW.CT.GOV/DSS

SHOULD ATTENDANCE NOT BE POSSIBLE AT THE HEARING, WRITTEN COMMENTS MAY BE SUBMITTED BY EMAIL TO brenda.geltzer@ct.gov OR MAILED TO THE DEPARTMENT OF SOCIAL SERVICES NO LATER THAN 4:30 P.M. ON WEDNESDAY, MAY 6, 2009, ATTENTION:

CARLENE TAYLOR
PROGRAM MANAGER
WEATHERIZATION ASSISTANCE PROGRAM
COMMUNITY, ENERGY AND REFUGEE SERVICES
DEPARTMENT OF SOCIAL SERVICES
25 SIGOURNEY STREET
HARTFORD, CONNECTICUT 06106

XXIV. Public Hearing Transcript:

Transcripts of the Public Hearings held on May 5, 2009 in Hartford and Bridgeport regarding the Connecticut's Weatherization Assistance Program will be included in the plan and application submitted to the U.S. Department of Energy.

APPENDIX 1

WEATHERIZATION ASSISTANCE PROGRAM SUBGRANTEES

There are currently four subgrantees that have been selected in accordance with 10 CFR § 440.15 to provide weatherization services with ARRA funds. An additional subgrantee will be chosen for the Greater New Haven service area to ensure that all areas of the state are served. All of these organizations are CAAs and have many years of experience operating the WAP. These subgrantees also have many years of experience operating a variety of programs for low-income households. Each year, public comment is encouraged concerning these subgrantees at the required public hearing. DSS reviews these subgrantees annually concerning their past performance and their ability to continue in Connecticut's WAP. The subgrantees operating the program are:

Action for Bridgeport Community Development, Inc. (ABCD), 1407 Fairfield Ave, Bridgeport, CT 06604

ABCD serves the towns of: Bridgeport, Darien, Easton, Fairfield, Greenwich, Monroe, New Canaan, Norwalk, Stamford, Stratford, Trumbull, Weston, Westport, and Wilton.

The Community Renewal Team, Inc. (CRT), 555 Windsor Street, Hartford, CT 06120

CRT serves the towns of: Avon, Bloomfield, Branford, Bristol, Burlington, Canton, Chester, Clinton, Cromwell, Deep River, Durham, East Granby, East Hartford, East Haddam, East Hampton, East Windsor, Enfield, Essex Farmington, Glastonbury, Granby, Guilford, Haddam, Hartford, Killingworth, Madison, Manchester, Marlborough, Middlefield, Middletown, New Britain, Newington, North Branford, Old Saybrook, Plainville, Plymouth, Portland, Rocky Hill, Simsbury, South Windsor, Suffield, West Hartford, Wethersfield, Westbrook, Windsor and Windsor Locks.

New Opportunities, Inc. (NO), 232 North Elm Street, Waterbury, CT 06702

NO serves the towns of: Barkhamstead, Berlin, Bethel, Bethlehem, Bridgewater, Brookfield, Canaan, Cheshire, Colebrook, Cornwall, Danbury, Goshen, Hartland, Harwinton, Kent, Litchfield, Meriden, Middlebury, Morris, Naugatuck, New Fairfield, New Hartford, New Milford, Newtown, Norfolk, North Canaan, Prospect, Redding, Ridgefield, Roxbury, Salisbury, Sharon, Sherman, Southbury, Southington, Thomaston, Torrington, Wallingford, Warren, Washington, Waterbury, Watertown, Winchester, Wolcott and Woodbury.

The ACCESS Agency, Inc. (ACCESS), 1315 Main Street, Willimantic, CT 06226

ACCESS serves the towns, of: Andover, Ashford, Bolton, Bozrah, Brooklyn, Canterbury, Chaplin, Colchester, Columbia, Coventry, Eastford, East Lyme, Ellington, Franklin, Griswold, Groton, Hampton, Hebron, Killingly, Lebanon, Ledyard, Lisbon, Lyme, Mansfield, Montville, New London, North Stonington, Norwich, Old Lyme, Plainfield, Pomfret, Preston, Putnam, Salem, Scotland, Somers, Sprague, Stafford, Sterling, Stonington, Tolland, Thompson, Union, Vernon, Voluntown, Waterford, Willington, Windham and Woodstock.

The Greater New Haven Area

Agency To Be Determined to serve the towns of: Ansonia, Beacon Falls, Bethany, Derby, East Haven, Hamden, Milford, New Haven, North Haven, Orange, Oxford, Seymour, Shelton, West Haven and Woodbridge.

Connecticut Department of Economic and Community Development, 505 Hudson St., Hartford, CT 06106

DECD will provide ARRA Weatherization services to state public rental housing units throughout the state.

APPENDIX 2 - ARRA WEATHERIZATION SUBGRANTEE DATA

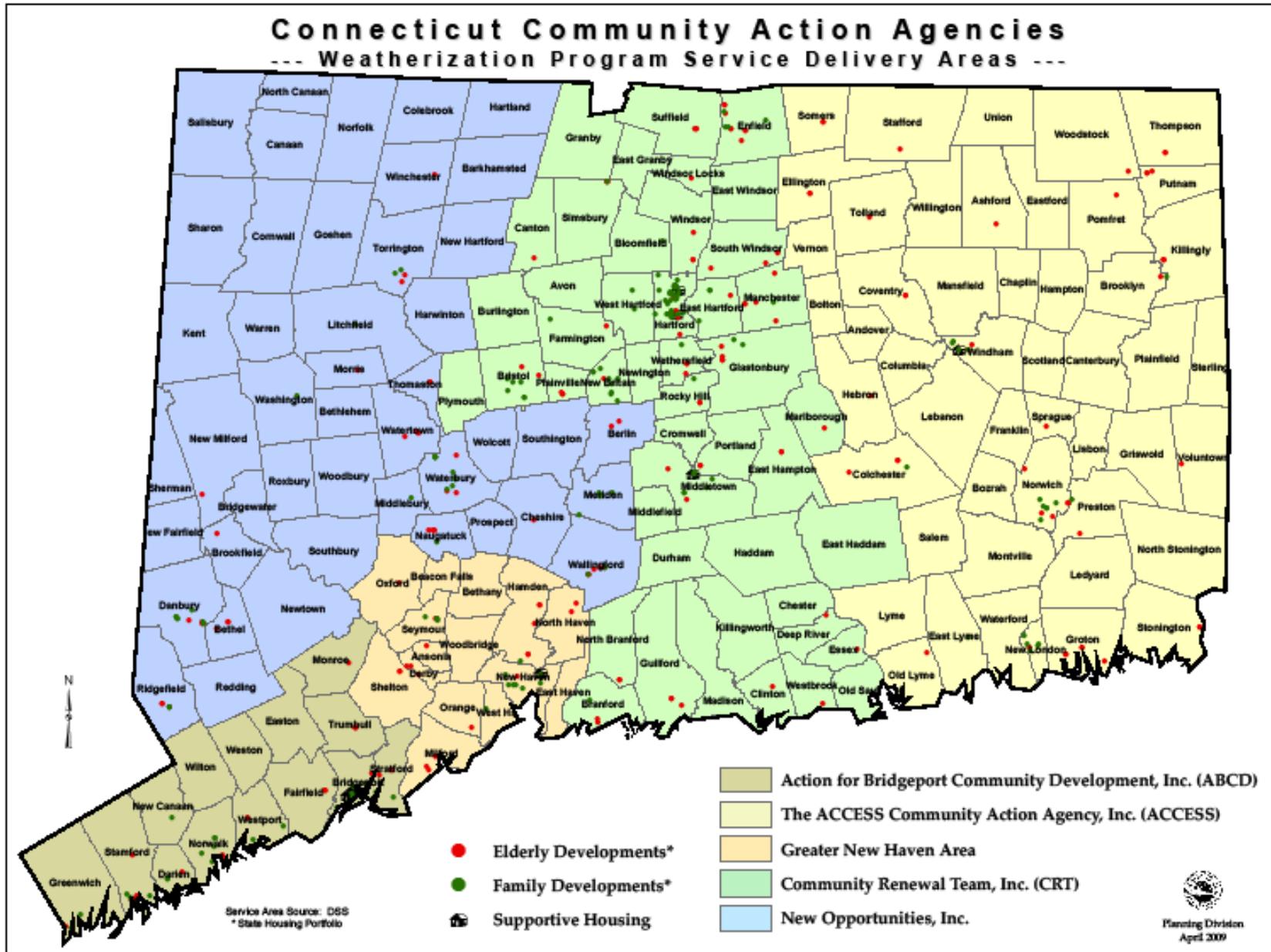
Community Action Agency	Allocation	Total Units to be Weatherized	Units to be Weatherized by Service Area		Units to be Re-Weatherized	Rental Units to be Weatherized	Sources of Labor	Congressional District					% Of District Served						
								1	2	3	4	5	1	2	3	4	5		
Action for Bridgeport Community Development, Inc.	\$ 5,900,899	770	Bridgeport Area	525	20	270	crew/ contractor												
			Norwalk Area	99						X	X						5	90	
			Stamford Area	146															
Community Renewal Team, Inc.	\$ 5,378,787	695	Hartford	541	20	243	crew/ contractor	X	X	X		X	75	15	10				10
			Bristol Area	71															
			New Britain	83															
New Haven Area	\$ 4,217,099	528	New Haven Area	408	20	185	contractor			X	X					75	5		
			Derby Area	120															
New Opportunities, Inc.	\$ 6,981,930*	717	Waterbury Area	449	20	251	crew/ contractor	X		X	X	X	25		10	5	90		
			Danbury Area	128															
			Meriden Area	140															
The ACCESS Agency, Inc.	\$ 6,021,285	787	Danielson Area	353	20	275	contractor		X					85					
			Norwich Area	434															
CAAs TOTAL	\$28,500,000	3,497			100	1,148													
DECD	\$20,000,000	2,850	Statewide		0	2,850	contractor	Statewide											
SPECIAL PROJECTS	\$ 7,100,000	1,153	Statewide		0	1,153	contractor	Statewide											
TOTAL	\$55,600,000	7,500			100	5,151	crew/ contractor												

* Includes \$1,000,000 for statewide Training and Technical Assistance activities and \$450,000 for statewide Leveraging activities.
The estimated number of eligible dwelling units statewide with elderly is 30,563 and persons with disabilities are 14,739.

APPENDIX 2 - ARRA WEATHERIZATION SUBGRANTEE DATA (Continued)

DECD (Service Area)	Allocation	Total Units to be Weatherized	Units to be Weatherized by Service Area	Units to be Re- Weatherized	Rental Units to be Weatherized	Sources of Labor	Congressional District					% Of District Served					
							1	2	3	4	5	1	2	3	4	5	
DECD (Bridgeport, Norwalk, Stamford Areas)	\$ 3,200,000	456	Bridgeport Area Norwalk Area Stamford Area	0	456	contractor			X	X				5	90		
DECD (Hartford, Bristol, New Britain Areas)	\$ 6,000,000	855	Hartford Area Bristol Area New Britain Area	0	855	contractor	X	X	X		X	75	15	10		10	
DECD (New Haven, Derby Areas)	\$ 2,000,000	285	New Haven Area Derby Area	0	285	contractor			X	X				75	5		
DECD (Waterbury, Danbury, Meriden Areas)	\$ 4,000,000	570	Waterbury Area Danbury Area Meriden Area	0	570	contractor	X		X	X	X	25		10	5	90	
DECD (Danielson, Norwich Areas)	\$ 4,800,000	684	Danielson Area Norwich Area	0	684	contractor		X					85				
DECD TOTAL	\$20,000,000	2,850		0	2,850												
CAA TOTAL	\$28,000,000	3,497	Statewide	100	1,148	crew/ contractor	Statewide										
SPECIAL PROJECTS	\$ 7,100,000	1,153	Statewide	0	1,153	contractor	Statewide										
TOTAL	\$55,600,000	7,500		100	5,151	crew/ contractor											

APPENDIX 3 – SERVICE DELIVERY AREA MAPS

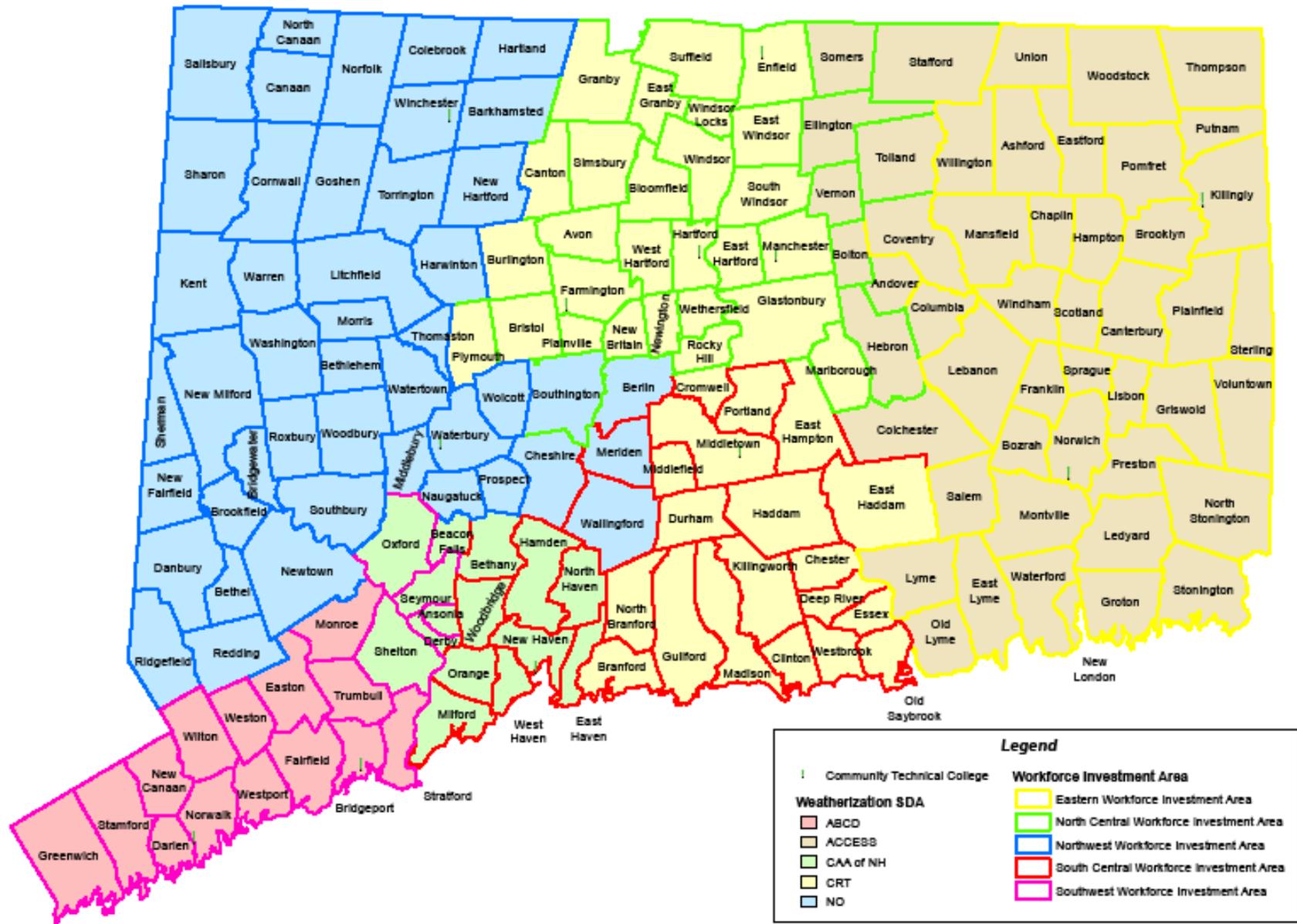


Geocode address match:
Elderly developments - 81% / Family developments - 90% / Supportive housing developments - 100%

L. Zajac

APPENDIX 3 – SERVICE DELIVERY AREA MAPS

Weatherization SDAs with Workforce Investment Areas and Community Technical Colleges



APPENDIX 4

QUALITY ASSURANCE AUDIT OF THE WEATHERIZATION PROGRAM

Purpose of the Quality Assurance Audit

Determine whether the CAAs and other subgrantees and sub-contractors

- are in compliance with the ARRA WAP grant requirements
- have financial controls in place to ensure the proper use and allocation of program expenditures
- are expending ARRA WAP funds in accordance to the grant intent and goals.

Audit Steps

- Determine the requirements of the ARRA WAP by reviewing federal statutes and regulations, state statutes, OMB Circular A-133, and DSS Program Policy and Procedures.
- Interview DSS program management, to determine DSS's responsibilities for monitoring the WAP
- Interview subgrantee's personnel to
 - establish that control procedures are in place to ensure compliance with federal laws and grant requirements.
 - determine the subgrantee's procedures for determining eligibility and administering the program.
 - determine if the subgrantee has an accounting manual and established accounting procedures.
 - determine the subgrantee's recordkeeping system for accounting for grant/contract funds.
 - determine whether ARRA WAP funds are kept in a separate bank account.
 - determine whether there is a proper segregation of duties for signing checks and withdrawing program funds.
 - determine whether bank reconciliations are current.
- Obtain and review any independent audit reports and DSS program monitoring reports concerning the subgrantee to identify any prior findings related to the WAP or overall internal control weaknesses. If there were any such findings,, determine whether and what corrective action was taken to address the findings.
- Obtain any monthly program financial reports submitted to DSS.
- Obtain a copy of the subgrantee ARRA WAP budget.
- Compare the actual subgrantee expenditures to the ARRA WAP budget to determine whether the subgrantee is in compliance with the approved budget.
- Determine whether administrative costs (payroll, insurance, rent etc.), are properly allocated and are within the budgeted amount.
- Sample payroll time records to determine whether staff is properly recording their ARRA WAP labor hours.

- Sample program expenditures to determine whether payments are supported by invoices, receipts, or other supporting documentation.
- Determine whether that the subgrantee's inventory system has sufficient controls to determine that all ARRA WAP materials purchased are accounted for.
- Sample and review client files to determine compliance with the eligibility requirements and required documentation.
- Perform several on- site visits to confirm that the work was actually performed.

