

WIDS Measures List - Directions and Definitions			
WIDS Measure	Quantity/ Characteristics Detail	Directions	Definitions - See Weatherization Manual for Additional Detail
Baseload Measures			
Client Education	Yes = 1	Enter 1 if Consumer Conservation Education was provided.	Teaching the wise use of energy and natural resources in order for consumers to decrease use, increase home comfort level, and save money.
Efficient Lighting (CFL)	number	Enter the number of energy efficient light bulbs installed.	The replacement of incandescent screw-in light bulbs that typically operate continuously for more than three hours with compact fluorescent screw-in bulbs (CFLs) that are Energy Star compliant.
Efficient lighting fixtures	number	Enter the number of energy efficient lighting fixtures installed.	The replacement of lighting fixtures with hard-wired fluorescent or LED fixtures that are Energy Star compliant.
Water heater pipe insulation (6 ft – hot& cold)	number	Enter the number of water heaters that had inlet and outlet pipe insulation installed.	Install at least R-3 insulation on the first 6 feet of water pipes entering and leaving the water heater where no insulation (or less than R-3) exists. Specify the number of water heaters where this measure is installed (typically this will be 1 for a single family unit).
Water heater insulation	Number	Enter the number of water heaters that had insulation wrap installed. Typically this will be 1 for a single family unit.	Install a minimum R-10 insulated tank wrap for water heaters with no insulation in an un-conditioned space.
Water heater replacement	Number	Enter the number of water heaters replaced or repaired. Typically this will be 1 for a single family unit.	The replacement of an existing hot water heater with an energy efficient model when the savings to investment ration is greater than 1, the cost of repair is greater than the cost of replacement or for client health and safety. Count repaired water heaters here as well.
Water pipe insulation	Yes = 1	Enter 1 if pipe insulation is installed.	The installation of at least R-3 insulation on accessible hot and cold water lines.

Refrigerator Replacement Non-Tribal	Number	Enter the number of refrigerators replaced.	The replacement of an existing refrigerator with an Energy Star model.
Refrigerator Replacement Tribal	Number	Enter the number of refrigerators replaced in Native American households.	The replacement of an existing refrigerator with an Energy Star model. If the occupant is Native American, it's considered a tribal unit no matter where it is located. The Native American box on the HIF form when they applied for weatherization must be checked in order for the unit to be counted as Native American.
Showerheads	Number	Enter the number of Low flow Showerheads installed.	The replacement of an existing showerhead that uses more than 2.5 gallons/minute with one that uses less than 2.5 gallons/minute.
Faucet aerators	Number	Enter the number of low flowAerators installed.	Install water saving faucet aerators where they do not exist.
Other baseload	specify	Specify the measure or measures installed.	Other baseload energy efficiency measures with an SIR greater than 1.
Heating and Cooling Measures			
Heating system repair	Number	Enter the number of separate heating systems repaired. Typically this will be 1 for a single family unit.	Repair of a heating system to ensure functionality, safe operation, and adequate heating of the space.
Furnace cleaned and tuned	Number	Enter the number of furnaces cleaned and tuned. Typically this will be 1 for a single family unit.	Inspect, clean, and tune a furnace to correct hazards and to improve combustion and distribution efficiency.
Heating system replacement	Number	Enter the number of separate heating systems replaced. Typically this will be 1 for a single family unit.	Replacement of an existing heating system to ensure functionality, safe operation, and adequate heating of the space. This is allowable when the cost of repair is greater than the cost of replacement or the SIR of a more efficient furnace is greater than 1.
Thermostat	Number	Enter the number of thermostats installed or replaced.	Installation or replacement of a thermostat with a programmable or electronic thermostat.

Duct sealing	Yes = 1	Enter 1 if duct sealing was performed.	Seal existng ducts when determined necessary by diagnostic testing or visual inspection. All accessible connections shall be sealed.
Duct insulation	Yes = 1	Enter 1 if duct insulation was added.	In an un-conditioned space, insulate ducts with a minimum of R-8 insulation (up to R-19).
Duct replacement and repair	Yes = 1	Enter 1 if ducts are repaired or replaced.	Replacement or repair of all ductwork that is disconnected, torn, crushed, or severely deteriorated.
Other heating/cooling	specify	Specify the measure or measures installed.	Other heating/cooling system energy efficiency measures with an SIR greater than 1.
Envelope/Insulation Measures			
Ceiling/attic insulation	sqft and change in R-value	Enter the square footage of insulation installed in the first column and the CHANGE in R-Value in the second column	Insulate ceiling/attic using the priority list or where the SIR is greater than 1. If the change in R-value varies, enter a weighted average.
Knee Wall	sqft and change in R-value	Enter the square footage of insulation installed in the first column and the CHANGE in R-Value in the second column	Insulate knee walls adjoining attic spaces using the priority list or where the SIR is greater than 1. If the change in the R-value varies, enter a weighted average.
Wall insulation	sqft and change in R-value	Enter the square footage of insulation installed in the first column and the CHANGE in R-Value in the second column	Insulate walls using the priority list or where the SIR is greater than 1. If the change in R-value varies, enter a weighted average.
Floor insulation	sqft and change in R-value	Enter the square footage of insulation installed in the first column and the CHANGE in R-Value in the second column	Insulate floors over un-conditioned spaces with the priority list or where the SIR is greater than 1. If the change in R-value varies, enter a weighted average.

Perimeter insulation	sqft and change in R-value	Enter the square footage of insulation installed in the first column and the CHANGE in R-Value in the second column	Insulate the perimeter (exterior or interior) where the SIR is greater than 1 as an alternative to underfloor insulation. This measure also includes rim joist insulation. Rim joist should be insulated in both instances. If the change in R-value varies, enter a weighted average.
Priority air sealing	Yes = 1	Enter 1 if priority air sealing is used.	Conduct priority air sealing which includes air sealing of all large holes, including obvious bypasses, chase ways, and gaps that exist between the unconditioned areas and the conditioned areas.
Blower door assisted air sealing	Yes = 1	Enter 1 if blower door guided air sealing is used.	Conduct air sealing using a blower-door to assist in determining appropriate air sealing measures.
Weather strips/door sweeps	Yes = 1	Enter 1 if door sweeps or weather stripping are added	Install weather stripping or door sweeps to reduce infiltration.
Windows	sqft and change in U-value	Enter the square footage of windows installed in the first column and the CHANGE in U-Factor in the second column	Replace [or repair] windows where the SIR is greater than 1 or the condition of the window compromises health and safety, security or structural integrity (durability). If the change in U-factor varies, enter a weighted average. For a repair that does not affect U-factor, enter 0.
Doors	number	Enter the number of doors repaired or replaced.	Replace [or repair] doors where the SIR is greater than 1 or the condition of the door compromises health and safety, security or structural integrity (durability).
Other Shell	specify	Specify the envelope/insulation measure or measures installed.	Other envelope/insulation energy efficiency measures with an SIR greater than 1.
5. Weatherization Related Repairs			
Electrical repairs	Yes = 1	Enter the number 1 if electrical repairs are performed.	Conduct weatherization-related electrical repairs.
Plumbing repairs	Yes = 1	Enter the number 1 if plumbing repairs are performed.	Conduct weatherization-related plumbing repairs.

Roof repairs	Yes = 1	Enter the number 1 if roofing repairs are performed.	Conduct weatherization-related roof repairs.
Other repairs	specify	Specify the measure or measures installed.	Other weatherization-related repairs. Specify the measure or measures installed.
6. Health & Safety			
CO detector	number	Enter the number of CO detectors installed or replaced.	Install carbon monoxide detectors.
Smoke detector	number	Enter the number of SMOKE detectors installed or replaced.	Install UL approved smoke detectors.
Mechanical Ventilation	Yes = 1	Enter 1 if mechanical ventilation is added or repaired.	Provide mechanical ventilation.
Make up air vents installed	Yes = 1	Enter 1 if make up air vents are added or repaired.	Install outdoor air inlet vents for individual rooms.
Attic ventilation, crawl space ventilation, below grade vents	Yes = 1	Enter 1 if attic or crawlspace vents are added or repaired.	Install venting for passive ventilation of attics and crawlspaces.
Lead safe weatherization	Yes = 1	Enter 1 if lead safe weatherization practices were followed	Apply lead safe weatherization practices.
Dryer venting	Yes = 1	Enter 1 if dryer venting was installed or repaired.	Vent dryers directly to the outside.
Other health and safety	specify	Specify the measure or measures installed.	Other health and safety measures.
8. Renewable Energy			
Solar water heating	sqft of collector	Enter the total square footage of the collector.	Install an approved solar hot water heating system for domestic hot water or space heating. Specify the square feet of solar collectors installed.

Solar electric (photovoltaic)	kW	Enter the kW of the PV array.	Install a solar photovoltaic (PV) system to generate electricity. Specify the kW capacity of the PV system.
Other renewable technology	specify	Specify the measure or measures installed.	Other renewable technology measures. Specify the measure or measures installed.
SERC Measures			
Ductless Heat Pumps (mini-splits)	Number	Enter the number of ductless heat pumps installed.	<p>Ductless mini-split systems combine the flexibility of room air conditioners with the whole house cooling of central systems. Although some systems provide heating and cooling, ductless mini-split heat pumps are usually installed primarily for cooling.</p> <p>In a conventional heat pump, a single indoor unit (refrigerant coil and air handler) and single outdoor unit (condenser and compressor) serve the entire house. Air is cooled at the evaporator coil and distributed around the house via ductwork. In ductless systems, there is (usually only) one outdoor unit serving multiple indoor units (each containing a refrigerant coil and blower). Refrigerant is piped from the outdoor unit through small-diameter insulated refrigerant lines directly to individual rooms or zones. Cooled air is blown into the room by a fan in the individual evaporator units. The term "mini" is used to describe the small indoor units located in each room or zone.</p>
Energy Star Heat pump water heaters	Number	Enter the number of energy star heat pump water heaters installed.	<p>A water heater that uses electricity to move heat from one place to another instead of generating heat directly.</p> <p>These units would be used to replace failing electric water heaters, where they offer significant operational savings. These units may also be used to replace back-drafting gas or propane fueled water heaters. They would provide similar operational costs in these instances, but would result in a major health and safety improvement in the homes where they are installed.</p>

High efficiency heat recovery ventilator air exchangers	Number	Enter the number of High efficiency heat recovery ventilator air exchangers installed.	Recaptures heat before exhausting air out and tempers incoming air. Heat recovery ventilation, also known as HRV, Mechanical ventilation heat recovery, or MVHR, is an energy recovery ventilation system, using equipment known as a heat recovery ventilator, Heat exchanger, air exchanger or air-to-air exchanger, that employs a counter-flow heat exchanger (countercurrent heat exchange) between the inbound and outbound air flow. HRV provides fresh air and improved climate control, while also saving energy by reducing the heating (or cooling) requirements.
Solar hot water systems	sqft of collector	Enter the total square footage of the collector.	Solar water heating systems include storage tanks and solar collectors. Solar water heating systems: types include open loop v.s. closed loop, active: which utilizes drainback or pressurized anti-freeze; and passive: which utilizes batch or thermosyphon technology. Solar storage tanks have an additional outlet and inlet connected to and from the collector. In two-tank systems, the solar water heater preheats water before it enters the conventional water heater. In one-tank systems, the back-up heater is combined with the solar storage in one tank.
EPDM rubber roofing	Yes = 1	Enter 1 if EPDM rubber roofing was installed.	EPDM roofs are single-ply membranes meaning there is only one ply of roofing material, not multiple plies laminated together. EPDM membrane thickness ranges from thirty mils (0.030") to one-hundred mils (0.100") with the most common thicknesses being forty-five mils (0.045") and sixty mils (0.060"). There are three standard application procedures: (1) fully-adhered; (2) mechanically-fastened; (3) loose-laid. EPDM roofing is typically installed on mobile homes after the ceiling cavity has been filled in with insulation. The EPDM membrane then covers and seals the roof assembly.

High efficiency furnaces	Number	Enter the number of High efficiency furnaces installed.	A high efficiency furnace is a heating system that is able to convert the vast majority of its fuel source to energy, with very little lost or wasted. In most cases, the best way to determine efficiency is to look at the annual fuel utilization efficiency (AFUE). Sealed combustion or power vented (90%) furnaces are high efficiency furnaces. Induced draft (80%) furnaces are efficient furnaces. Atmospheric or natural draft (70%) furnaces are the minimum acceptable standard high efficiency furnaces.
Tank-less water heaters	Number	Enter the number of Tank-less water heaters installed.	Tankless water heaters, also called instantaneous, continuous flow, inline, flash, on-demand or instant-on water heaters, instantly heat water as it flows through the device, and do not retain any water internally except for what is in the heat exchanger coil. Tankless heaters are often installed throughout a household at more than one point-of-use (POU), far from the central water heater, or larger models may still be used to provide all the hot water requirements for an entire house. The main advantages of tankless water heaters are a continuous flow of hot water and energy savings (as compared to a limited flow of continuously heating hot water and stand by heat loss from conventional tank water heaters).

Hybrid water heater	Number	Enter the number of Hybrid water heaters installed.	A hybrid water heater is a water heating system that integrates technology traits from both the Tank-type water heaters and the Tankless water heaters[1]. The hybrid water heater maintains water pressure and consistent supply of hot water across multiple hot water applications, and like its tankless cousins, the hybrid is efficient and can supply a continuous flow of hot water on demand.[2] The hybrid approach is designed to eliminate general shortcomings of other technologies. For example, hybrids are activated by either thermostat (similar to tanked) or flow (similar to tankless). Hybrids have small storage tanks that temper incoming cold water. This means hybrids only have to increase water temperature from warm to hot as opposed to tankless which has to raise completely cold water to hot. The defining characteristics of a "hybrid water heater" are: A combination of water flow of tank and efficiency of tankless of water heater; Built-in small storage water reservoir as part of heat exchanger (typically between two gallons to 20 gallons)and Dual Activation: flow sensing and thermostat control.
Solar photovoltaic system	kW	Enter the kW of the PV array.	A photovoltaic system is a system which uses solar cells to convert light into electricity. A photovoltaic system consists of multiple components, including cells, mechanical and electrical connections and mountings and means of regulating and/or modifying the electrical output.
High-R Retrofit Windows	sqft and change in U-value	Enter the square footage of high-R retrofit windows installed in the first column and the CHANGE in U-Factor in the second column	Windows are normally rated with a U-factor (the lower the more efficient the window). U is reciprocal of R. An R-5 in U-factor is rated as a U-0.2 (a very efficient window.) Weatherization requires a standard of U-0.3.

Deep Energy Retrofits	Yes = 1	Enter 1 if deep energy retrofits were performed.	A process of super-insulating older properties, and making the appropriate mechanical upgrades, so that energy usage for heating and cooling is reduced very significantly, usually 50% to 95%. Beyond a green retrofit, a Deep Energy Retrofit (DER) focuses primarily on energy conservation—seriously addressing a building's enclosure—literally on all sides. It combines strategies of energy conservation, air sealing, moisture management, controlled ventilation, and insulation so that dramatic energy savings are achieved alongside optimal building performance.
Home Performance Score	Yes = 1	Enter 1 if a home performance score was calculated.	A score that tracks estimated green house gas reduction along with accurate energy saving estimates.
Energy Usage Display	number	Enter the number of energy usage displays installed.	Displays that allow residents to monitor their energy consumption.