

# Household Energy Use in Texas

## A closer look at residential energy consumption

All data from EIA's 2009 Residential Energy Consumption Survey

[www.eia.gov/consumption/residential/](http://www.eia.gov/consumption/residential/)

- Texas households consume an average of 77 million Btu per year, about 14% less than the U.S. average.
- Average electricity consumption per Texas home is 26% higher than the national average, but similar to the amount used in neighboring states.
- The average annual electricity cost per Texas household is \$1,801, among the highest in the nation, although similar to other warm weather states like Florida.
- Texas homes are typically newer, yet smaller in size, than homes in other parts of the country.

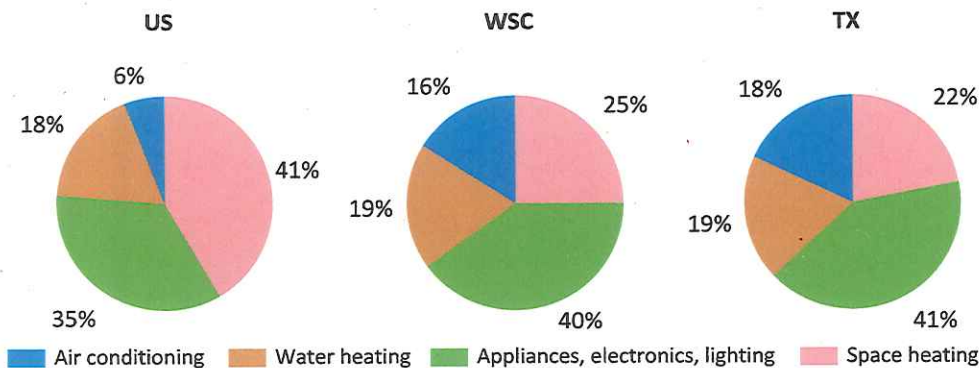
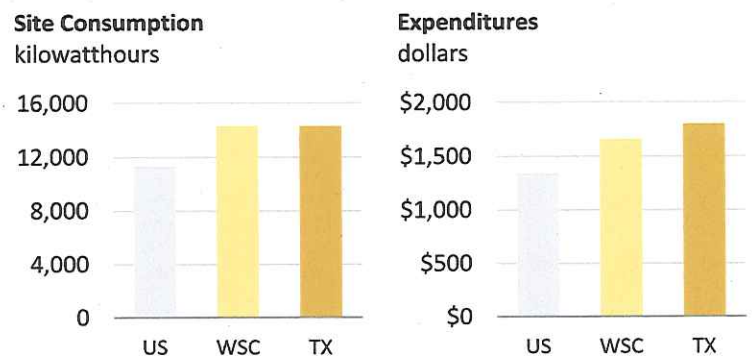


**DIVISION:** West South Central (WSC)  
**STATES INCLUDED:** Arkansas, Louisiana, Oklahoma, Texas

### ALL ENERGY average per household (excl. transportation)



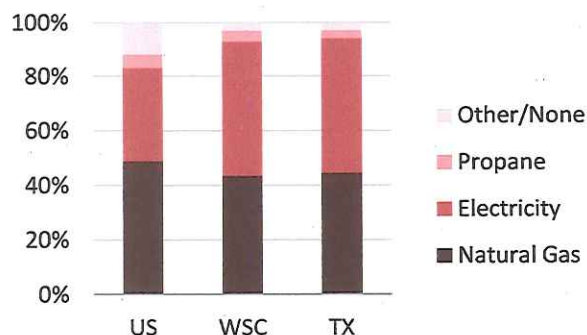
### ELECTRICITY ONLY average per household



### CONSUMPTION BY END USE

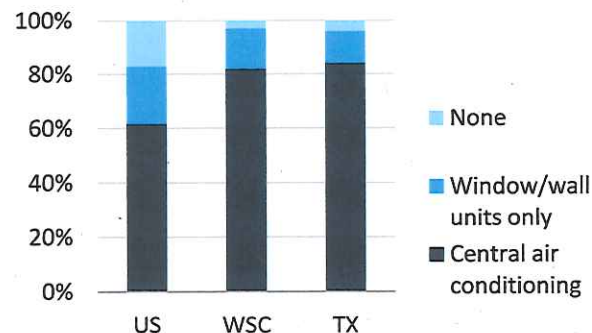
Compared to other areas of the United States, the warmer weather in Texas and its neighboring states means that air conditioning accounts for a greater portion of home energy use (18%), while space heating accounts for a much smaller portion (22%).

### MAIN HEATING FUEL USED



Despite warmer weather than most other states, almost all Texas homes are heated. About half of Texas residents heat with electricity, a greater proportion than the U.S. average.

### COOLING EQUIPMENT USED



Almost all Texas residents use air conditioning equipment, with over 80% using central air conditioners.



# HOME PERFORMANCE WITH ENERGY STAR



## REBATE LEVELS

(Effective November 24<sup>th</sup>, 2014 thru March 31<sup>st</sup> 2015)

Schedule subject to change without notice

### RECOMMENDED BUILDING PERFORMANCE MEASURES

	AUSTIN ENERGY	TEXAS GAS REBATE
<b>1. SOLAR SHADING</b>	\$1.00 per sq.ft.	
<b>2. ATTIC INSULATION</b> (air infiltration required)	\$0.0035 per sq.ft. per "R" + \$45 Setup Fee	\$0.0035 per sq.ft. per "R" + \$45 Setup Fee
<b>3. AIR INFILTRATION</b> (duct sealing and testing)	\$0.12 per sq.ft.	\$0.08 per sq.ft.
<b>4. TOTAL EXTERNAL STATIC PRESSURE</b>	\$175.00 first system    \$100.00 additional system	
<b>Total External Static Pressure</b> -.5 for air handlers and .7 gas furnace values must be met to qualify for rebates.		
<b>5. FAN COVER</b>	\$25 each	
<b>6. EXTERNAL COMBUSTION AIR</b> (Gas furnace or water heater)	\$20 each	

All the above recommended measures must be applied to receive the HVAC rebates below.

### HVAC REBATES (1.5 Ton to 5 Ton)

To verify SEER and EER requirements, go to <http://www.ahrinet.org/site/1/Home>

CENTRAL SPLIT SYSTEM	Air Conditioners	Heat Pumps	TEXAS GAS FURNACE REBATE
Tier 2: 15.0/12.5=	\$850	\$900	<b>\$75 FOR GAS FURNACE</b>
Tier 3: 16.0 & up/13.0=	\$950	\$1000	
Tier 4: 17.0 & up/13.5 & up	\$1000	\$1050	
<b>PACKAGE UNITS</b>			
Tier 2: 15.0 & up/13.0 & up	\$925	\$975	<b>\$75 FOR GAS FURNACE</b>

### OTHER BUILDING PERFORMANCE MEASURES

<b>1. DUCT REPLACEMENT</b>	\$3.00 per linear FT.	\$1.00 per linear FT.
<b>2. DUCT INSULATION</b> (add to duct replacement when flex is added or replaced)	\$1.25 per linear FT.	
<b>3. RETURN AIR</b>	\$ 75.00 per return air <i>improvement</i> . (Maximum three per system.)	
<b>4. SYSTEM PERFORMANCE</b> (Air Balance/ Terminal Devices)	\$250.00            \$100.00	
<b>5. RADIANT BARRIER OPTIONAL*</b>	\$0.10 per sq. ft.	
<b>6. STAIRBOX*</b>	\$25 each	
<b>7. ADDITIONAL ATTIC ACCESS</b>	\$25 each	
Optional measures marked with an asterisk.*		

#### Notes:

Solar Shading is Austin Energy's only "stand alone" measure.

# RECOMMENDED BUILDING PERFORMANCE HIGHLIGHTS

(See the HPwES handbook for complete specifications)

**Solar shading-** Applies to any window that receives direct sunlight on over half of the window for one hour or more daily. (April thru October) No film applied to double pane windows.

**Attic Insulation-** Where existing insulation is below R-22, install to R-38 over conditioned attic floor space.

**Air Infiltration-** Seal all existing ductwork ... Blower door readings will assess the need for mechanical ventilation. Must meet Total External Static Pressure requirement and perform a backdraft test. If static goal cannot be met contractor must show due diligence.

**Single story accessible duct** – Single story homes with duct systems that are completely accessible (no duct in fur downs or chases) - the duct system must be completely sealed and will be required to have 10% or less leakage, without exception.

**Single story or multi-story-** Homes with duct systems that are partially accessible (some accessible duct, some inaccessible in fur downs and/or chases) or completely inaccessible will not have to meet the 10% leakage requirement. However, all accessible ducts must be sealed, visually inspected for due diligence and a test report provided.

**Due Diligence-** Defined as examining the system for the following needs and providing a solution; Increased supply and return air sizing, additional return and supply ducting, providing proper terminal devices at the return and supply side.

**Total External Static Pressure-** .5 for air handler and .7 for gas furnace. If static goal is not met the contractor must demonstrate due diligence. Example: Increased duct sizes, increased return air size or additional supply runs, return runs or enhanced plenum designs.

**Fan Cover** - Where whole a house fan exists, a cover must be provided to prevent air movement between the attic and conditioned space.

**External Combustion Air-** Where combustion appliances reside within conditioned space, combustion air shall be provided. Where combustion appliances fall outside conditioned space and unsafe conditions exist those deficiencies will be noted. Where mechanical equipment is installed new vent materials are required when improper or deteriorated products exist. Proper vent cap is required to support combustion.

**Duct Replacement-** Available where existing duct is insulated below R-6, improperly sized or unbalanced, deteriorated, or damaged. Systems with over 50% duct board or grey flex must be replaced.

**Duct Insulation-** Combined with duct replacement or where re-insulation of sheet metal duct work exists.

**Return Air-** Available when additional return is needed to reduce static pressure to meet "Total External Static Pressure" guidelines. Additional return rebates apply when air flow to the appliance is enhanced.

**System Performance-** Required where 50% or more of the duct dedicated to a specific piece of equipment is replaced. The improved duct system must meet "Total External Static Pressure" requirements. Terminal devices must be replaced where they fail to meet guideline specifications.

**Radiant Barrier-** Roll out type attached at the rafter level.

**Stair Box Cover-** Site fabricated or manufactured cover to reduce air infiltration and increase insulation levels above the level of the pull down stair assembly.

**Additional Attic Access-** Provided to facilitate inspection and installation of equipment and or insulation. Approved access methods include any single method or combination of attic vents, attic scuttles, gable end vents or pull down stair installation.