

Hardcopy Guide for Gathering Input Values for the Home Energy Saver Website

<http://hes.lbl.gov>

The following pages contain screen captures that look more or less as they will appear when you go through the on-line version of the Home Energy Saver web site.

Print this worksheet ahead of time and use it at your leisure to gather information to enter into the website during your session.

Many of the input questions have supporting help screens, which can be reached by clicking on the [blue hyperlink](#) on the live site. In many cases, there is a discrete list of choices, which you will be able to see when you click on the “popup” arrow on the live site. In some cases, we have reproduced those lists here.

The screenshot shows the Home Energy Saver website. At the top, a green banner reads "HOME ENERGY SAVER" and a purple banner below it says "The first web-based do-it-yourself energy audit tool". On the left is a navigation menu with links like "About this Site", "What's New?", "Testimonials", "Librarian", "Glossary", "FAQ", "Ask An Expert", "No/Low-Cost Tips", "Remodeling", "Local Resources", "Awards & Accolades", "Press Information", "Demo Movie", "Developers", "Students & Teachers", "Search", and "Help". The main content area features a house image with "ENERGY EFFICIENCY" text overlaid. Below the image, it says "Investing in a home on your street could be more profitable than investing on Wall Street." and "MAKING IT HAPPEN Find resources to make your home more energy efficient." To the right is a "CALCULATOR" section with the text "Find the best ways to save energy in YOUR home!". It has two input fields: "Enter your zip code" (containing "94720") and "Enter previous session" (containing "save"). A "Go!" button is below the fields, and a link "Don't know the zip code?" is at the bottom. A yellow callout box points to the "Enter your zip code" field with the text "Start here by simply entering your zip code". A red callout box points to the top right with the text "Click here to give us your feedback and help us to improve this site." Another red callout box points to the "CALCULATOR" section with the text "Save \$\$\$ Find out more about the profitability of energy efficiency upgrades". At the bottom of the page, a grey box contains the text "Money isn't all you save. Visit the ENERGY STAR website for information on energy-efficient products."

Developed by the Environmental Energy Technologies Division
at the Lawrence Berkeley National Laboratory

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Home Energy Saver Making It Happen

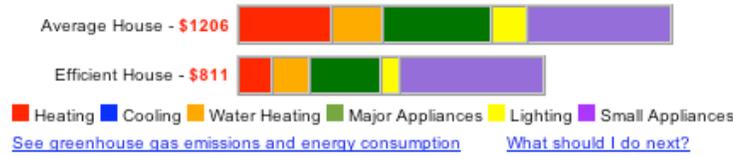
About HES What's New Energy Librarian Glossary FAQ Search Help

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General Info Heating & Cooling Water Heating Major Appliances Small Appliances Lighting

Energy Bill for Houses in Berkeley, California

Based on the zip code you entered, here is a comparison of the energy costs (in \$/year) of an average home and an energy-efficient home in your area.



Potential Savings \$395
About the Results

This list of options is at the top of every page in the calculator area. The following sheets in this handout show the input forms you will reach by clicking on these categories.

Start Calculation...

1. Upgrade Calculation:

What simple [payback](#) period would you like to use for selecting upgrades?

What efficiency level would you like to model for the initial selection of upgrades? (you'll be able to individually adjust the efficiency of each upgrade later)

2. Which city has the most similar climate to your house?

3. Year your house was built:

4. What is the conditioned floor area: sq. ft.

5. How many [stories above ground level](#) are there?

6. The [front of your house](#) faces:

7. What [type of foundation](#) does your house have?

8. How much [attic floor or roof insulation](#) do you have?

9. Does your house have wall insulation? Yes No/Don't Know

10. Does your house have [foundation or floor insulation](#)? Yes No/Don't Know

11. Do you have a clothes washer? Have Don't Have

12. How many refrigerators do you have?

13. How many freezers do you have?

14. What is your water heater fuel?

15. What kind of [heating equipment](#) do you have?

16. What kind of [cooling equipment](#) do you have?

17. Starting with the front of your house, how many windows are on each side. (Assume each window is 12 square feet)

Front: Left: Back: Right:

18. What price do you pay for your energy?

(Consult your utility bills to update the statewide averages shown below. For electricity prices, you may either use the statewide average, or select an electricity tariff)

Electricity	Piped Natural Gas	<input type="text" value="0.821"/>	\$/therm or \$/100 cubic foot
Average price per kWh	Liquid Propane Gas	<input type="text" value="1.487"/>	\$/gallon
<input type="text" value="0.118"/> \$/kilowatt-hour	Fuel Oil	<input type="text" value="1.494"/>	\$/gallon

19. Please tell us how many people living in your house fall into the following groups:
 0 to 5 years 6 to 13 years 14 to 64 years 65 years and older

Save Answers

(Note: Your session number is 519588. Please record this number for future access to the information you enter here. To access a previously created session, [enter the session ID in the form on the top page.](#))

OPTIONS

- Slab-on-grade foundation
- Unconditioned basement
- Conditioned basement
- Unvented crawlspace
- Vented crawlspace

Find this information on your energy bills. You can enter either the average, or (for electricity only) the exact tariff you have.

After entering your zip code, you will see some preliminary results for typical homes in your area, followed by this list of questions.

These are preliminary questions that will help you customize the results to reflect your particular house.

More details can be entered by clicking on the categories at the top of this page (e.g. General Info, Heating & Cooling, Water Heating, etc...).

This further level of detail is optional. The more categories you select and complete, the more accurately the results will reflect the conditions in your home.

See "Heating & Cooling Equipment" screen (below) options

We offer nearly 300 locations from which to choose around the United States. If your town is not available, select one that you believe to have similar weather conditions.

General Information

Save Answers

What city has the most similar climate to your location:

Year house was built?

Number of Occupants

Ages 0 to 5 Ages 6 to 13 Ages 14 to 64 Ages 64 and up

House Shape and Size

Save Answers

1. The front of the house [faces in which direction?](#)

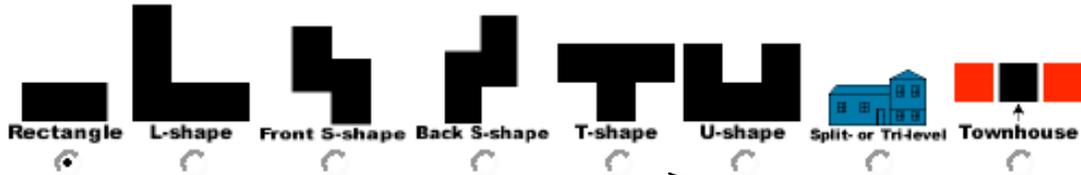
2. How many [stories above ground level](#) does your house have?

1 to 4 stories

3. What is the [interior floor-to-ceiling height?](#)

6 to 20 feet, in 1-foot increments

4. Choose the shape below that most closely matches the [shape of your house](#):
Imagine your house's shape without attached garages



If your house is rectangular, please answer the next two questions:

5. What is the length of the house (from front to back)?
Enter a value between 10.00 and 200.00 feet

6. What is the width of the house (from left to right)?
Enter a value between 10.00 and 200.00 feet

If you choose something other than a rectangle, you will see a subsequent screen that will ask you to enter the dimensions (in feet) for the various edges of your house

Exterior Shading

Save Answers

Enter the appropriate information for each side of the house:

	Front	Right	Back	Left
1. Extension of roof eaves or patios (between 0.50 and 20.00 feet)	<input type="text" value="1"/> feet			
2. Height of large shade trees (greater than 6 ft.)	<input type="text" value="0"/> feet			
3. Height of neighboring houses	<input type="text" value="None"/> stories			

Airtightness

Save Answers

1a. Does the house have weatherstripping and/or caulking to prevent air leakage? Yes No ?

OR

1b. Enter the measured or estimated air leakage rate into and out of house (optional)

Measured air leakage rate determined using a blower door test, expressed in units of cubic feet per minute at 50 Pascals pressure (0.001 to 25000.00; 0 indicates to use input from question 1a.)

Foundations and Floors

Save Answers

1. What is your house's [foundation type](#)?

2. What is the [foundation insulation level](#)?

If your home has either a basement or a crawlspace answer the next question:

3. What is the [insulation level](#) of the floor above the basement or crawlspace?

OPTIONS

- Slab on grade
- Unconditioned basement
- Conditioned basement
- Unvented crawlspace
- Vented crawlspace

None, R-5, R-11, or R-19

R-0 to R-38

Walls

Save Answers

1. Please select the [construction type, insulation level, and exterior finish](#) of your house's walls

Insulation Level	Exterior Finish					
	Wood Siding	Stucco	Vinyl Siding	Aluminum Siding	Brick Veneer	None
R-0 (no insulation)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-3 (1-2 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-7 (2-3 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-11 (3-5 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-13 (5-6 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-15 (6-7 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-19 (7-9 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-21 (9-10 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
With Insulated Headers						
R-11 (3-5 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-13 (5-6 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-15 (6-7 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-19 (7-9 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>
R-21 (9-10 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>

Select the insulation value of the insulation itself (e.g. R15 (6-7 inches), rather than an estimated value for the entire wall cross section (exterior cladding, plus insulation, plus interior wall material)

(Walls Continued)

With EPS Sheathing					
R-11 (3-5 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-13 (5-6 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-15 (6-7 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-19 (7-9 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-21 (9-10 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
With Insulated Headers and EPS Sheathing					
R-11 (3-5 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-13 (5-6 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-15 (6-7 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-19 (7-9 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-21 (9-10 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
With EPS Sheathing and OVE					
R-19 (7-9 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-21 (9-10 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
With OVE					
R-19 (7-9 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-21 (9-10 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-27 (10-12 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-33 (12-15 inches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>
R-38 (15-16 inches)	<input type="checkbox"/>	-	-	-	-
Structural Brick					
R-0 (no insulation)					<input type="checkbox"/>
R-5 (1 inch)					<input type="checkbox"/>
R-10 (2 inches)					<input type="checkbox"/>
Concrete Block					
R-0 (no insulation)	<input type="checkbox"/>				<input type="checkbox"/>
R-3 (1/2 inch)	<input type="checkbox"/>				<input type="checkbox"/>
R-6 (1 inch)	<input type="checkbox"/>				<input type="checkbox"/>
Straw Bale					
R-0 (no insulation)	<input type="checkbox"/>				

If you answer "Yes" to this question, you will be given the opportunity to provide different answers for each side of house.

1a. Do all the wall have similar construction? Yes No

Selecting "Yes" sets all the walls to the type chosen above. If you select "No" we will ask about the other walls on the next page.

2. How dark are the exterior surfaces of the walls? Medium

Doors and Windows

Save Answers

Doors

1. Front of House

[Number of doors on each wall](#) (1-4)

Door type (Core/Edge/Frame Type)

Door U-Factor (Optional) (0.00 to 5.00) Btu/h-ft²-°F

To calculate with U-factor, be certain to select "custom door" as your door type.

Right Side of House

[Number of doors on each wall](#) (1-4)

Door type (Core/Edge/Frame Type)

Door U-Factor (Optional) (0.00 to 5.00) Btu/h-ft²-°F

To calculate with U-factor, be certain to select "custom door" as your door type.

Back of House

[Number of doors on each wall](#) (1-4)

Door type (Core/Edge/Frame Type)

Door U-Factor (Optional) (0.00 to 5.00) Btu/h-ft²-°F

To calculate with U-factor, be certain to select "custom door" as your door type.

Left Side of House

[Number of doors on each wall](#) (1-4)

Door type (Core/Edge/Frame Type)

Door U-Factor (Optional) (0.00 to 5.00) Btu/h-ft²-°F

To calculate with U-factor, be certain to select "custom door" as your door type.

“Front” will correspond to the direction you say the house is facing on the “House Shape and Size” input screen.

The “U” factor is “1” divided by the “R-value”. Information on U-factors and R-values is available from the door manufacturer.

Only complete this question of you specify “custom” for the door type.

Windows

	Front	Right	Back	Left
3. Window Area (0.00-300.00 square feet)	72 square feet	36 square feet	72 square feet	36 square feet
4. Movable window insulation (R-value 0.0-12.0)	0	0	0	0

5. [Movable window shades](#)

Front:

Right:

Back:

Left:

These areas (in square feet) are the COMBINED areas of all windows on each side of the house. For example, if you have 4 windows that are each 2 feet tall by 4 feet wide, the area to enter is 4 x (2 x 4), or 32 square feet.

6. [Window type](#) (Select one)

a) Does the house have more than one type of window? No Yes

Selecting "No" sets all windows to the type chosen below. If you select "Yes" we will ask about the other windows on the next page.

Glazing Type	Frame Type		
	Aluminum	Aluminum w/ Thermal Break	Wood or Vinyl
Single-pane, clear	<input checked="" type="radio"/>		<input type="radio"/>
Single-pane, tinted	<input type="radio"/>		<input type="radio"/>
Double-pane, clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Double-pane, tinted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Double-pane, solar-control low-E	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Double-pane, solar-control low-E, argon gas fill			<input type="radio"/>
Double-pane, insulating low-E			<input type="radio"/>
Double-pane, insulating low-E, argon gas fill		<input type="radio"/>	<input type="radio"/>
Triple-pane, insulating low-E, argon gas fill			<input type="radio"/>
<input type="radio"/> Custom window Enter your own specifications using fields at right.	<input type="text" value="0"/>	U-Factor (0.00:5.00)	<input type="text" value="0"/>
	<input type="text" value="0"/>	Solar heat gain coefficient (0.00:1.00)	

When buying a new window, it will probably come with a label that provides these values.

Skylights

Save Answers

NOTE: Answer the next four questions ONLY if the house has skylights.

1. What is the area of the skylights? square feet

Enter a value between 0.00 and 300.00 square feet. Multiply the length of each skylight by its width, such as 3.50 feet X 2.00 feet, and add these individual areas to obtain the total skylight. Include skylight frames in your calculation.

2. Please select your skylight type:

Glazing Type	Frame Type		
	Aluminum	Aluminum w/Thermal Break	Wood or Vinyl
Single-pane, clear	<input checked="" type="radio"/>		<input type="radio"/>
Single-pane, tinted	<input type="radio"/>		
Double-pane, clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Double-pane, tinted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Double-pane, solar-control low-E	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Double-pane, solar-control low-E, argon gas fill			<input type="radio"/>
Double-pane, insulating low-E			<input type="radio"/>
Double-pane, insulating low-E, argon gas fill		<input type="radio"/>	<input type="radio"/>
Triple-pane, insulating low-E, argon gas fill			<input type="radio"/>
<input type="radio"/> Custom skylight Enter details in text fields at right	<input type="text" value="0"/> Skylight U-factor Enter a U-factor between 0.0 and 5.0.		
	<input type="text" value="0"/> Skylight solar heat gain coefficient Valid coefficients are between 0.0 and 1.0.		

When buying a new skylight, it will probably come with a label that provides these values.

3. Enter the R-value of movable skylight insulation:

Enter an R-value between 0.0 and 12.0. Enter 0.0 if you have no movable skylight insulation.

4. Select the type of movable interior skylight shades (if applicable):

Attic and Roof

Save Answers

1. Select the [attic or ceiling type](#):

If your house has an attic, answer the next question:

2. What is the [insulation level of the attic floor](#):

3. Insulation level (e.g. [in a cathedral ceiling, or sheath insulation under the roofing materials](#)) and exterior covering of the roof or cathedral ceiling:

Roof Insulation Level (not attic floor)	Exterior Covering				
	Composition Shingles	Wood Shakes	Clay Tile	Concrete Tile	Tar and Gravel
R-0 (no insulation)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-11 (3-5 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-13 (5-6 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-15 (6-7 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-19 (7-9 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-21 (9-10 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-27 (10-13 inches)	-	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With Radiant Barrier					
R-0 (no insulation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With EPS Sheathing					
R-0 (no insulation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-11 (3-5 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-13 (5-6 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-15 (6-7 inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-19 (7-9 inches)	-	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R-21 (9-10 inches)	-	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. How [dark is the exterior surface](#) of the roof or cathedral ceiling?

Select from Menu

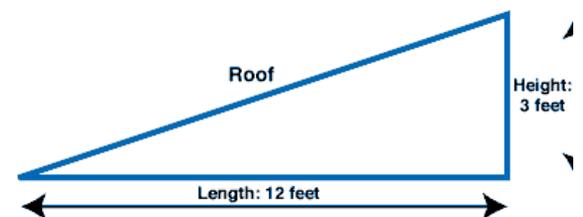
User-entered exterior roof absorptance

Enter a value between 0.00 and 1.00.

5. What is the [slope \(or pitch\)](#) of your roof?

(in the form height:length)

Ex. 0:12 = flat roof; 12:12 = 45 degree slope



Ducts

Save Answers

NOTE: Answer the next three questions ONLY if your house has forced-air heating or cooling ducts.

Where are your ducts located?

Are the ducts insulated? Yes No/Don't Know

Are the ducts sealed? Yes No/Don't Know
If only sealed with duct tape, answer "no"

Boiler Details

NOTE: Answer the next questions ONLY if the home has boiler pipes.

Are the boiler pipes insulated? Yes No/Don't Know

Does your [boiler provide the hot water](#) for your house?

OPTIONS

- Conditioned (heated/cooled) space
- Unconditioned basement or unvented crawlspace
- Vented crawlspace
- Unconditioned attic
- Unknown

OPTIONS

- No, I have a separate boiler and water heater
- Combination boiler and water heater with tankless coil for water heating
- Combination boiler with indirect tank for water heating

Thermostat

Save Answers

1. What is your thermostat type? Standard or Programmable

2. Do you use more than one temperature setting (each) for heating and cooling? I change the settings I leave it the same
(e.g. two settings, one for heating and one for cooling, or more than two)

Standard Thermostat Schedule

Save Answers

Settings for a house with a standard thermostat:

T.2. Start times and temperatures at which the thermostat is set:

Enter values between 40 and 100 degrees F for the temperatures.

Enter whole-hour values between 1 and 24 hours for the start times. Use 24-hour clock or military time (12 = noon; 24 = midnight). Each succeeding thermostat setting period must begin at least one hour after previous period (e.g., if the "Daytime" setting starts at 8, the "Nighttime" setting must start no earlier than 9).

	Weekdays					
	Daytime		Nighttime			
Heating:	64	degrees F, 8	Time	68	degrees F, 17	Time
Cooling:	81	degrees F, 8	Time	78	degrees F, 17	Time
	Weekends & holidays					
	Daytime		Nighttime			
Heating:	64	degrees F, 8	Time	68	degrees F, 17	Time
Cooling:	81	degrees F, 8	Time	78	degrees F, 17	Time

If you select a "Programmable" thermostat in the previous screen, and indicate that you change the settings, you will be taken to this screen where you should enter the heating and cooling schedule and temperatures that you've programmed into the thermostat.

- OPTIONS**
- None
 - Central gas furnace
 - Room (through-the-wall) gas furnace
 - Propane (LPG) furnace
 - Oil furnace
 - Electric furnace
 - Electric heat pump
 - Electric baseboard heater
 - Gas boiler
 - Oil boiler

Can usually be found on the heating equipment label

Heating Equipment

Save Answers

NOTE: To complete the heating and cooling system description, be sure to visit the Ducts and Thermostat pages.

1. Please select your [heating system](#):

2. What is your [heating system capacity](#)? Btu/hour

Enter a value between 1,000 and 400,000 Btu/hour. Do not use a comma in your entry. If you are uncertain of the equipment capacity, enter 0 and the calculator will automatically size your equipment to meet the heating demand.

3. If you [know](#) the heating system [efficiency](#), enter it here: %

OR What year was your heating system installed?

NOTE: Selecting a year installed will overwrite the efficiency value entered above with a representative value for systems sold in that year.

4. [Percentage of the house's floor area](#) heated by a central or room heating system: %

Enter a value between 0 and 100%. Exclude wood stoves and portable heaters.

5. Percentage of the house's [heating needs](#) supplied by a wood burning stove or portable heater: %

Enter a value between 0 and 100%.

This can be estimated by dividing the "Output BTUs" by the "Input BTUs", usually noted on the equipment label.

Can usually be found on the heating equipment label

- OPTIONS
- None
 - Central air conditioner
 - Room air conditioner

Cooling Equipment

Save Answers

NOTE: To complete the heating and cooling system description, be sure to visit the Ducts and Thermostat pages.

1. What type of [cooling equipment](#) do you have?

2. What is the [capacity](#) of your cooling equipment? Btu/hour

Enter a value between 1,000 and 400,000 Btu/hour. Do **not** use a comma in your entry. If you are uncertain of the equipment capacity, enter 0 and the calculator will automatically size your equipment to meet the cooling demand.

3. If you [know](#) the cooling system [efficiency](#), enter it here:

OR What year was your cooling system installed?

NOTE: Selecting a year installed will overwrite the efficiency value entered above with a representative value for systems sold in that year.

4. [Percentage of the house's floor area](#) cooled by the cooling system: %

Enter a value between 0 and 100%.

NOTE: Answer the next two questions ONLY if the home has a Room (vs. central) Cooling System

5. [Hours room air conditioner is on](#) during an average day in the cooling season:

6. [Number of months](#) room air conditioner is on during an average cooling season:

7. Does the house have ceiling fans? Yes No

8. Number of ceiling fans:

9. Does the house have a [whole house fan](#)? Yes No

10. [Hours per day the whole house fan is used](#):

11. [Months per year the whole house fan is used](#):

12. Does the house have portable fans? Yes No

13. Number of portable fans:

NOTE: To complete the heating and cooling system description, be sure to visit the Ducts and Thermostat pages.

Cooking and Dishwasher

Save Answers

Stove:

What fuel does your stove use? Natural Gas or Propane

OPTIONS

- Don't have/don't use
- Natural Gas or Propane
- Electricity

How many hours/day do you use your stove? 1 hour (Add hours for all burners together)

Does your stove have a pilot light? No

Oven:

What fuel does your oven use? Electricity

OPTIONS

- Don't have/don't use
- Natural Gas or Propane
- Electricity

How many hours/week do you use your oven? 2 hours

Does your oven have a pilot light? Yes

Dishwasher:

Do you have/use a dishwasher? Yes No

Don't have/don't use to 10 hours/week

Is it an EnergyStar dishwasher? Yes No

How many loads/week do you wash? 4

Don't have/don't use to 10 loads/week

Laundry

Save Answers

Clothes Washer:

Do you have/use a clothes washer? Yes No

Is it an EnergyStar clothes washer? Yes No

How many loads per week do you wash? 7

How many of your weekly loads are washed/rinsed at the following temperatures?

2	Hot /Warm
0	Hot /Cold
3	Warm /Warm
2	Warm /Cold
0	Cold /Cold

Clothes Dryer:

What fuel does your clothes dryer use? Electricity

How many loads per week do you dry? 7

OPTIONS

- Don't have/don't use
- Natural Gas or Propane
- Electricity

Lighting

Option 1: Based on the information you supply about the number of lighting fixtures, we can estimate the energy used by lights. This estimate will be based on typical hours of use and wattage from a field study that monitored lighting in homes.

Option 2: If you prefer, you can provide the exact wattage and average hours of use per day for each fixture. This information will then be used to calculate lighting energy use. It will probably take you a few minutes to collect the wattage for each fixture.

[Save answers...](#)

How many light fixtures do you have in the following rooms (include portable (plug-in) lamps): Note: Multiple lights on a single circuit (switch) count as one fixture.

Kitchen	2	Dining Room	1	Living Room	3
Family Room	1	Master Bedroom	2	Hall	2
Bedroom(s) <small>(enter the total for all other bedrooms, excluding closet lights)</small>	2	Bathroom(s) <small>(enter the total for all bathrooms)</small>	2	Closet(s) <small>(enter the total for all closets)</small>	0
Utility Room	0	Garage	1	Outdoor Lighting	2
Other	0				

Detailed Lighting Inputs

[Calculate Detailed Lighting Usage](#)

Use the detailed inputs below to estimate your home's lighting costs.

Please enter information about your lighting fixtures in the table below. Complete one row for each fixture. Multiple lights controlled by one switch or set of switches is considered one fixture. The inputs you enter here will be used to calculate the lighting energy for your house.

You may find it helpful to print this table and carry it around the house to collect fixture wattages and record your estimates of fixture usage. If you forgot a fixture, go back to the previous page and add it there (inputted data on this page will not be saved), or combine it with a similar fixture already present in the table below. Combining it with a fixture in the same room will keep the summary of energy usage/per room consistent with your house, combining the missing fixture with a fixture in another room will alter this balance.

When estimating lighting usage, don't forget to factor in vacations and other times when the room or house is unoccupied. People tend to overestimate lighting usage for this reason. If you are not sure how a particular fixture is used, leave the default value - it is based on the field study mentioned on the previous page and is a good estimate of average usage for that room.

Fixture Location	Bulb Type	Number of bulbs in fixture	Sum of wattages for all bulbs in fixture	Usage (Hrs/day)
Kitchen	<input checked="" type="radio"/> Incandescent			
	<input type="radio"/> Halogen Torchiere	1	95	3
	<input type="radio"/> Compact Fluorescent			
	<input type="radio"/> Fluorescent tubes			
Kitchen	<input checked="" type="radio"/> Incandescent			
	<input type="radio"/> Halogen Torchiere	1	95	3
	<input type="radio"/> Compact Fluorescent			
	<input type="radio"/> Fluorescent tubes			
Dining Room	<input checked="" type="radio"/> Incandescent			
	<input type="radio"/> Halogen Torchiere	1	165	2
	<input type="radio"/> Compact Fluorescent			
	<input type="radio"/> Fluorescent tubes			
	<input checked="" type="radio"/> Incandescent			

If you choose "Option 1" in the first Lighting question, the following table will appear, with one row for each room and light fixture indicated in the first table.

Refrigerators and Freezers

Save Answers

First Refrigerator:

What year was your refrigerator made? 1990 ▼

What size is this refrigerator? Large (19-21 cu ft) ▼

What kind of refrigerator is it? Don't know details ▼

Is it an EnergyStar refrigerator? Yes No

Second Refrigerator:

What year was your 2nd refrigerator made? 1972 ▼

What size is this refrigerator? Small (13-15 cu ft) ▼

What kind of refrigerator is it? I don't have a 2nd refrigerator ▼

Is it an EnergyStar refrigerator? Yes No

Third Refrigerator:

What year was your 3rd refrigerator made? 1972 ▼

What size is this refrigerator? Small (13-15 cu ft) ▼

What kind of refrigerator is it? I don't have a 3rd refrigerator ▼

Is it an EnergyStar refrigerator? Yes No

First Freezer:

What year was your freezer made? 1972 ▼

What size is this freezer? Small (13-15 cu ft) ▼

What kind of freezer is it? I don't have a freezer ▼

Second Freezer:

What year was your 2nd freezer made? 1972 ▼

What size is this freezer? Small (13-15 cu ft) ▼

What kind of freezer is it? I don't have a 2nd freezer ▼

These four screens list a large number of common “small” appliances, organized by type of use (e.g. “Entertainment”). On the last of these four pages is an option to create a custom appliance, if you have something not shown on this page. The more accurately and completely you answer these questions, the more accurate will be your estimated energy use.

Entertainment

Save Answers

Please enter detail if you own the following appliances

Whenever there is more than one of a particular item, enter the average per-unit usage for all units in the house.

Do not select more than 24 hours in a day

Televisions									
CRT Television (Cathode Ray Tube - Standard TV technology)	One	used	7	Hours	per	Day	Energy Star?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
CRT Projection Television	None	used	2	Hours	per	Day			
LCD Television	None	used	2	Hours	per	Day			
DLP Television	None	used	2	Hours	per	Day			
Plasma Television	None	used	2	Hours	per	Day			
Miscellaneous Video Equipment									
DVD Player	One	used	4	Hours	per	Week	Energy Star?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
VCR Player	One	used	2	Hours	per	Week	Energy Star?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Cable	One	used	90	Minutes	per	Day	(Hours used should indicate actual time spent viewing cable programs)		
Satellite Dish	None	used	0	Minutes	per	Day	(Hours used should indicate actual time spent viewing Satellite programs)		
Video Game	One	used	1	Hours	per	Day			
Audio Equipment									
Audio Receiver / Tuner	One	used	2	Hours	per	Week			
Boombox - Portable CD/Radio/Tape	One	used	30	Minutes	per	Week			
CD Player	One	used	30	Minutes	per	Week	Energy Star?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Tape Player	One	used	2	Hours	per	Week			

Miscellaneous Kitchen Equipment

Save Answers

Please enter detail if you own the following appliances

Whenever there is more than one of a particular item, enter the average per-unit usage for all units in the house.

Do not select more than 24 hours in a day

Bottled Water ==> Energy Star? Yes No
With heating or chilling ability

Instant Hot Water

Broiler used Hours per (This is a "plug-in" broiler, not the unit built into your stove)

Coffee Machine - Drip Machine
 Brew Cycle Minutes per
 Warm Hours per

Coffee Machine - Percolator Machine
 Brew Cycle Minutes per
 Warm Hours per

Deep Fryer used Minutes per

Electric Fry Pan used Hours per

Espresso Machine used Hours per

Microwave used Minutes per

Slow Cooker used Hours per

Toaster used Minutes per

Toaster Oven Machine
 Toasting Minutes per
 Oven Minutes per

Home Office

Save Answers

Please enter detail if you own the following appliances

Whenever there is more than one of a particular item, enter the average per-unit usage for all units in the house.

Do not select more than 24 hours in a day

Computer CPU	One	used	5	Hours	per	Day	
Computer Monitor	One	used	5	Hours	per	Day	
Laptop Computer Charger	None	used	0	Minutes	per	Day	(Time should indicate time that laptop is plugged into the charger)
Laser Printer	None	used	1	Hours	per	Week	(Time should indicate time printer is actively printing)
Inkjet Printer	One	used	1	Hours	per	Week	(Time should indicate time printer is actively printing)
All inkjet printers naturally qualify as EnergyStar, therefore there is no difference in the energy used by EnergyStar vs. non-EnergyStar inkjet print							
Router / DSL / Cable Modem	One	used	5	Hours	per	Day	
Thermal Fax Machine	None	used	4	Minutes	per	Day	Energy Star? <input type="radio"/> Yes <input checked="" type="radio"/> No
Inkjet Fax Machine	None	used	4	Minutes	per	Day	
Home Copy Machine	None	machine					
Time Copying	30	Minutes			per	Day	
Time Left On but Idle	0	Hours			per	Day	

Other Miscellaneous Equipment

Save Answers

Please enter detail if you own the following appliances

Whenever there is more than one of a particular item, enter the average per-unit usage for all units in the house.

Do not select more than 24 hours in a day

Home Care							
Cordless Handheld Vacuum	None	machines					
Canister Vacuum Cleaner	None	used	1	Hours	per	Week	
Upright Vacuum Cleaner	One	used	1	Hours	per	Week	
Miscellaneous Electrical Uses							
Aquariums	None	used	24	Hours	per	Day	(Set to 24 hours/day unless you specifically turn your aquarium filtration/pumps off)
Automobile Block Heater	None	used	1	Hours	per	Day	for 4 months in the year
Clock	Two	machines					
Dehumidifier	None	used	24	Hours	per	Day	Energy Star? <input type="radio"/> Yes <input checked="" type="radio"/> No
Doorbell	Yes						
Electric Blanket	None	used	5	Hours	per	Day	for 4 months in the year
Electric Grill	None	used	1	Hours	per	Day	for 4 months in the year
Electronic Air Cleaner	None	used	24	Hours	per	Day	Energy Star? <input type="radio"/> Yes <input checked="" type="radio"/> No
Garage Door Opener	None	used	8	Minutes	per	Day	(Typical time to open or close the door is 3 minutes)
Hair Dryer	One	used	7	Minutes	per	Day	
Heat Tape	None	used	1	Hours	per	Day	for 4 months in the year
Humidifier	None	used	24	Hours	per	Day	
Iron	None	used	0	Minutes	per	Week	
Pipe and Gutter Heaters	None	used	2	Hours	per	Day	for 4 months in the year
Waterbed Heaters	None	machines					
Piped Natural Gas Appliances							
Gas Grill	None	used	1	Hours	per	Day	for 4 months in the year
Gas Lighting	None	used	6	Hours	per	Week	

Enter your Own:

Electric Appliances

Item 1:	None	used	0	Minutes	per	Day	drawing 0 Watts
Item 2:	None	used	0	Minutes	per	Day	drawing 0 Watts
Item 3:	None	used	0	Minutes	per	Day	drawing 0 Watts

Gas Appliances

Item 1:	None	used	0	Minutes	per	Day	drawing 0 therms.
Item 2:	None	used	0	Minutes	per	Day	drawing 0 therms.

Spas, Hot Tubs and Pumps

Save Answers

Please enter detail if you own the following appliances

Whenever there is more than one of a particular item, enter the average per-unit usage for all units in the house.

Do not select more than 24 hours in a day

OPTIONS
0 to 24
hours, in 1-
hour
increments

Pool Pump

0 How many hours/day does your pool pump run?

0 How many months of the year does your pool pump run?

Do you have a Pool heater Yes No

OPTIONS

- I don't have a spa
- Spa is heated 24 hours per day with electricity
- Spa is heated 24 hours per day with gas
- Spa is heated only during use with electricity
- Spa is heated only during use with gas

Spa/Hot Tub

I don't have a spa

0 If you heat your spa only when it is being used, how many hours/week do you use your spa?

Sump/Sewage Pump

What is the size of your sump pump? 1/3 horsepower

How many hours/year does your sump operate? 25 hours/year

Well Pump

Indicate the vertical distance that water is lifted - 175 feet
(Depth of well plus any additional height above wellhead/ground to get to the house).

50 to 1000 feet, in
50-foot increments

Combined Pump and Motor Efficiency Typical - 40%

OPTIONS

- Typical: 40%
- Efficient: 60%

Is house water pressure provided by gravity or pump? Gravity Pump

How much water is used outdoors?

Roughly 1.25 hours/day with garden hose

OPTIONS

- 1/6 horsepower
- 1/10 horsepower
- 1/3 horsepower
- 1/2 horsepower

OPTIONS

5 minutes to 3.5 hours
per day, with garden
hose