



**HOME ENERGY SAVER™**

HOME ENERGY SAVER  
**REPORT**

Prepared by:  
Nicole Lingard

This report is generated by the Home Energy Saver  
web-based energy audit tool, developed by  
the U.S. Department of Energy's  
Lawrence Berkeley National Laboratory,  
and can be reached at <http://hes.lbl.gov>



## HOUSE CONFIGURATION

### General Information

Name or other identifier this home/session : **Nicole**; User's email address : **c3123931@uon.edu.au**; Purpose of this assessment : **Energy audit of actual house**; City : **Jacksonville**; State : **Florida**; City with most similar climate to modeled house : **Jacksonville**; Year house was built : **1920**; People living in the house, by age - 0 to 5 years : **1**; People living in the house, by the age - 6-13 : **0**; People living in the house, by the age - 14-64 : **2**; People living in the house, by the age - 65 plus : **0**; Check for actual electricity prices in your area. : **no**; Utilities List : **no**; Select your tariff from the list below. : **no**;

### Energy Prices

Energy Prices - Electricity : **0.196**; Energy Prices - Piped Natural Gas : **1.640**; Energy Prices - Liquid Propane Gas (LPG) : **3.030**; Energy Prices - Fuel Oil : **5.300**;

### Exterior Shading

Extension of roof eaves or patios - Front : **1.00**; Extension of roof eaves or patios - Right : **1.00**; Extension of roof eaves or patios - Back : **1.00**; Extension of roof eaves or patios - Left : **1.00**; Height of large shade trees - Front : **0**; Height of large shade trees - Right : **20**; Height of large shade trees - Back : **20**; Height of large shade trees - Left : **0**; Height of neighboring houses stories - Front : **One**; Height of neighboring houses stories - Right : **One**; Height of neighboring houses stories - Back : **One**; Height of neighboring houses stories - Left : **One**;

### Air Tightness

Does the house have weatherstripping : **Yes**; Enter the measured or estimated air leakage rate : **0.00**;

### Foundation Floor

Foundation type : **Vented Crawlspace**; Foundation insulation level : **None**; Insulation level of the floor above the basement or crawlspace : **R-0 (no insulation)**;

### Walls

Darkness of exterior wall surfaces (left wall slider) : **0.70**; Do all the walls have similar construction? : **Yes**; Darkness of exterior wall surfaces (right wall slider) : **0.70**; Darkness of exterior wall surfaces (back wall slider) : **0.70**; Darkness of exterior wall surfaces (slider) : **0.80**; Wood Siding : **0.80**; Wood Siding : **0.80**; Wood Siding : **0.80**; Wood Siding : **0.80**; Stucco : **0.80**; Wood Siding : **0.80**; Stucco : **0.80**; Stucco : **0.80**; Stucco : **0.80**; Vinyl Siding : **0.80**; Stucco : **0.80**; Vinyl Siding : **0.80**; Vinyl Siding : **0.80**; Vinyl Siding : **0.80**; Aluminum Siding : **0.80**; Vinyl Siding : **0.80**; Aluminum Siding : **0.80**; Aluminum Siding : **0.80**; Aluminum Siding : **0.80**; Aluminum Siding : **0.80**; Brick Veneer : **0.80**; Aluminum Siding : **0.80**; Brick Veneer : **0.80**; Brick Veneer : **0.80**; Brick Veneer : **0.80**; Wood Siding : **0.80**; Wood Siding : **ewwf03wo**; Brick Veneer : **ewwf03wo**;

### Doors Windows

Doors - Front of house - Number of doors each wall : **1**; Doors - Front of house - Door Type : **Uninsulated wood/wood/wood**; Doors - Front of house - Door U-Factor : **0.00**; Doors - Back of house - Number of doors each wall : **2**; Doors - Back of house - Door Type : **Custom door (enter U-Factor below)**; Doors - Back of house - Door U-Factor : **0.00**; Back : **roller**; Front : **roller**; Single-pane, clear : **scnw**; U-Factor (0.00:5.00) : **0.00**; Solar heat gain coefficient (0.00:1.00) : **0.00**; Window Area Front : **45.00**; Window Area Back : **86.00**; Movable Insulation Front : **0.00**; Movable Insulation Back : **0.00**; U-Factor (0.00:5.00) : **0.00**; Solar heat gain coefficient (0.00:1.00) : **0.00**;

### Attic Roof

Attic or ceiling type : **Unconditioned Attic**; Insulation level of the attic floor : **R-11 (4-6 inches)**; R-0 (no insulation) : **rwf00co**;

### Ducts Pipes

Duct location : **Unknown/not applicable**; Are the ducts insulated? : **Yes**; Are the ducts sealed? : **No/Don't Know**; Are the boiler pipes insulated? : **No/Don't Know**; Does the boiler also provide the hot tap water? : **No - I have a separate boiler and water heater.**;

### Thermostat

Settings changed during the day and evening : **Change**; Standard or Programmable Thermostat : **standard**; Temperature setting - Heating temperature : **60**; Temperature setting - Cooling temperature : **84**; Weekdays Heating Day Degrees : **60**; Weekdays Heating Day Time : **8**; Weekdays Heating Night Degrees : **68**; Weekdays Heating Night Time : **17**; Weekdays Cooling Day Degrees : **84**; Weekdays Cooling Day Time : **8**; Weekdays Cooling Night Degrees : **78**; Weekdays Cooling Night Time : **17**; Weekend/Holiday Heating Day Degrees : **60**; Weekend/Holiday Heating Day Time : **8**; Weekend/Holiday Heating Night Degrees : **68**; Weekend/Holiday Heating Night Time : **17**; Weekend/Holiday Cooling Day Degrees : **84**; Weekend/Holiday Cooling Day Time : **8**; Weekend/Holiday Cooling Night Degrees : **78**; Weekend/Holiday Cooling Night Time : **17**; Temperature setting - Heating temperature : **8**; Temperature setting - Cooling temperature : **8**; Weekdays Heating Wake degrees : **68**; Weekdays Heating Wake Time : **7**; Weekdays Heating Away degrees : **64**; Weekdays Heating Away Time : **9**; Weekdays Heating Evening degrees : **68**; Weekdays Heating Evening Time : **19**; Weekdays Heating Sleep degrees : **64**; Weekdays Heating Sleep Time : **23**; Weekdays Cooling Wake degrees : **78**; Weekdays Cooling Wake Time : **7**; Weekdays Cooling Away degrees : **81**; Weekdays Cooling Away Time : **9**; Weekdays Cooling Evening degrees : **78**; Weekdays Cooling Evening Time : **19**; Weekdays Cooling Sleep degrees : **81**; Weekdays Cooling Sleep Time : **23**; Weekend/Holiday Heating Wake degrees : **68**; Weekend/Holiday Heating Wake Time : **8**; Weekend/Holiday Heating Away degrees : **64**; Weekend/Holiday Heating Away Time : **11**; Weekend/Holiday Heating Evening degrees : **68**; Weekend/Holiday Heating Evening Time : **19**; Weekend/Holiday Heating Sleep degrees : **64**; Weekend/Holiday Heating Sleep Time : **23**; Weekend/Holiday Cooling Wake degrees : **78**; Weekend/Holiday Cooling Wake Time : **8**; Weekend/Holiday Cooling Away degrees : **81**; Weekend/Holiday Cooling Away Time : **11**; Weekend/Holiday Cooling Evening degrees : **78**; Weekend/Holiday Cooling Evening Time : **19**; Weekend/Holiday Cooling Sleep degrees : **81**; Weekend/Holiday Cooling Sleep Time : **23**; Temperature setting - Heating temperature : **60**; Temperature setting - Cooling temperature : **84**;

### Heating Equipment

Type of heating system : **Room (through-the-wall) gas furnace**; Heating system capacity : **0**; Heating system efficiency : **65.60**; Year heating system installed : **65.60**; Percentage of the house's floor area heated by a central or room heating system : **50**; Percentage of the house's heating needs supplied by a wood burning stove or portable heater : **0**;

### Cooling Equipment

Type of cooling system : **No Cooling Equipment**; Cooling system capacity : **0**; Cooling system efficiency : **11.60**; Year cooling system installed : **11.60**; Percentage of the house's floor area cooled by the cooling system : **100**; Hours room air conditioner is on during an average day in the cooling season : **None**; Number of months room air conditioner is on during an average cooling season ? : **None**; Does the house have ceiling fans? : **Yes**; Number of ceiling fans : **3**; Does the house have a whole-house fan? : **No**; Hours per day the whole-house fan is used : **0**; Months per year the whole-house fan is used : **0**; Does the house have portable fans? : **Yes**; Number of portable fans : **2**;



: 0; Average Per-unit Use : 0; Unit of Time : **Minutes**; Unit of Calendar : **Day**; Number of Units : 0; Average Per-unit Use : 0; Unit of Time : **Minutes**; Unit of Calendar : **Day**;

### House Shape Size

Conditioned floor area (all stories combined) ? : **1238**; Direction faced by front of house : **East**; Stories above ground level : **1**; Interior floor-to-ceiling height : **12 feet**;  
Rectangle : **rectangle**; Front door is on Left Side : **side4**;

### Skylights

Single-pane, clear : **dcab**; Skylight U-Factor : **0.00**; Skylight Solar heat gain coefficient : **0.00**; Enter the R-value of movable skylight insulation : **0.00**; Select the type of movable interior skylight shades : **None**; Skylight size : **0.00**;



## HOME ENERGY SAVER™

### UPGRADE RECOMMENDATIONS SUMMARY

Visit [Recommendations](#) to see more information on each upgrade.

|                                       | <u>Yearly Savings</u> | <u>Estimated Added Cost</u> | <u>How Much is Too Much?</u> | <u>Simple Payback Time</u> | <u>Estimated ROI</u> | <u>Avoided Emissions (lbs. CO<sub>2</sub>)</u> |
|---------------------------------------|-----------------------|-----------------------------|------------------------------|----------------------------|----------------------|--|
| <b>Total for recommended upgrades</b> | <b>\$653</b>          | <b>\$1,092</b>              | <b>\$6,530</b>               | <b>2</b>                   | <b>44%</b>           | <b>4,449</b>                                   |

*Important Note:* These are initial estimates only, and results may vary. If the owner has not already done so, we strongly recommend that they retain a professional energy auditor to develop a detailed work scope and budget for improving the home. We also recommend the Home Performance with ENERGY STAR program when considering home improvements.

#### Upgrades Requiring Investment

1. Indoor lights
2. Electric clothes dryer
3. Gas water heater
4. Thermostat
5. Clothes washer
6. Refrigerator
7. Second Refrigerator

#### Other benefits that often come along with these energy-saving upgrades

- Fluorescent lamps last several times longer than ordinary incandescent bulbs, which saves you the time and expense of replacing bulbs when they burn out.
- Natural gas clothes dryers reduce your home's peak load on the power grid compared to an electric dryer.
- Efficient gas-fired water heaters may hold their temperature longer following power interruptions and operate more safely.
- Programmable thermostats can help keep your home more comfortable.
- ENERGY STAR® clothes washers can reduce water use significantly, leave the clothes drier thus reducing drying time and energy consumption, and reduce wear and tear on clothes.
- Energy-efficient refrigerators are quieter, run less often, release less heat into your kitchen, and keep their contents cool longer during power outages.
- Energy-efficient refrigerators are quieter, run less often, release less heat into your kitchen, and keep their contents cool longer during power outages.



## DETAILED UPGRADE RECOMMENDATIONS REPORT

This is a printable report of the upgrades selected for the home. These upgrades have the potential to save \$653 each year on the utility bill.

### Upgrade Package Summary:

|                                    |                  |
|------------------------------------|------------------|
| Estimate Yearly Bill Savings:      | <b>\$653</b> ?   |
| Estimated Lifetime Energy Savings: | <b>\$9,142</b> ? |
| Estimated Added Cost:              | <b>\$156</b> ?   |
| Maximum Price for 10 Year Payback: | <b>\$2,184</b> ? |
| Return on Investment:              | <b>44%</b> ?     |
| Upgrade Pays for Itself in:        | <b>2 years</b> ? |

### You selected the following upgrades:

- [Replace high use incandescent lamps with compact fluorescent lamps](#)
- [When replacing your electric clothes dryer, switch to natural gas model](#)
- [When replacing your gas water heater, choose an energy efficient model](#)
- [Install a programmable thermostat](#)
- [When replacing your clothes washer, choose an ENERGY STAR-labeled model](#)
- [When replacing your main refrigerator, choose an ENERGY STAR-labeled model](#)
- [When replacing your secondary refrigerator, choose an ENERGY STAR-labeled model](#)

Note: The economic benefits for each of the upgrades below are evaluated in isolation from the other upgrades. If the efficiency level is changed for one upgrade, its potential impact on other upgrades will not be counted in the individual upgrade estimates. However, these kinds of interactions are included in the "package" totals associated with the whole-house totals and chart at the top of the page (above). For example, if the furnace efficiency is increased, the energy savings from wall insulation will not change in the table below, but the incremental savings from including insulation in the package will be less due to the more efficient furnace's impact on reducing the energy required to make up heat losses through the wall (there is less energy being used, so less to save).

## Replace high use incandescent lamps with compact fluorescent lamps

### Economic Benefits:

|                                    |                |
|------------------------------------|----------------|
| Estimate Yearly Bill Savings:      | <b>\$99</b>    |
| Estimated Lifetime Energy Savings: | <b>\$1,386</b> |
| Estimated Added Cost:              | <b>\$88</b>    |
| Maximum Price for 10 Year Payback: | <b>\$990</b>   |
| Return on Investment:              | <b>110%</b>    |
| Upgrade Pays for Itself in:        | <b>1 year</b>  |



### Additional Benefits:

Fluorescent lamps last several times longer than ordinary incandescent bulbs, which saves you the time and expense of replacing bulbs when they burn out.

### Upgrade Description:

Replace high-use incandescent lamps with compact fluorescent lamps. These units can save up to 75% of the energy used by an ordinary incandescent bulb.

### Purchasing Tips:

- Compare the light output in Lumens of the bulb you are replacing to ensure you are using the appropriate CFL. Most CFLs list their light output and equivalent incandescent wattage on their package.
- CFLs are available in many shapes and sizes, which will allow replacing nearly any incandescent bulb.
- When buying new light fixtures, look for ENERGY STAR qualified models.
- CFLs are a good investment for lights that are used 2-3 hours per day on average or more.

### More Information:

- [ENERGY STAR qualifying lighting product list](#)
- [General information about lighting from DOE](#)

[\[Return to upgrades list\]](#)

## When replacing your electric clothes dryer, switch to natural gas model

### Economic Benefits:

|                                    |                |
|------------------------------------|----------------|
| Estimate Yearly Bill Savings:      | <b>\$98</b>    |
| Estimated Lifetime Energy Savings: | <b>\$1,372</b> |
| Estimated Added Cost:              | <b>\$160</b>   |
| Maximum Price for 10 Year Payback: | <b>\$980</b>   |
| Return on Investment:              | <b>61%</b>     |
| Upgrade Pays for Itself in:        | <b>2 years</b> |

### Additional Benefits:

Natural gas clothes dryers reduce your home's peak load on the power grid compared to an electric dryer.

### Upgrade Description:

When replacing your electric clothes dryer, select a natural gas model. In many situations, this will reduce your overall energy bill because natural gas tends to cost less than electricity, for the same heating value.

Note: Our calculations bill savings, typical upgrade costs, and cost-effectiveness are for a minimum-efficiency natural gas dryer model. The default upgrade cost provided here assumes that a natural gas connection is available at your clothes dryer. If this is not the case, be sure to include the cost of extending

### Purchasing Tips:

- To use a gas dryer, your laundry room must have a gas hookup, with proper connections and safe venting of the gas's exhaust, in addition to an electrical outlet
- Look for a dryer with a moisture sensor, and use the dryness settings rather than timed drying.
- When replacing your clothes washer, choose a model with high-speed spin cycles. This feature removes more water from clothes, which reduces the energy and time required for drying.

### More Information:

- [General Information from DOE](#)
- [Laundry tips from ACEEE](#)
- [Information from the California Energy Commission](#)

[\[Return to upgrades list\]](#)

## When replacing your gas water heater, choose an energy efficient model

### Economic Benefits:

|                                    |                |
|------------------------------------|----------------|
| Estimate Yearly Bill Savings:      | <b>\$48</b>    |
| Estimated Lifetime Energy Savings: | <b>\$672</b>   |
| Estimated Added Cost:              | <b>\$170</b>   |
| Maximum Price for 10 Year Payback: | <b>\$480</b>   |
| Return on Investment:              | <b>28%</b>     |
| Upgrade Pays for Itself in:        | <b>4 years</b> |

### Additional Benefits:

Efficient gas-fired water heaters may hold their temperature longer following power interruptions and operate more safely.

### Upgrade Description:

When replacing your gas water heater, choose an energy-efficient model with an Energy Factor of 0.62 or higher.

Note: Our calculations bill savings, typical upgrade costs, and cost-effectiveness assume the efficient water heater has an energy factor of 0.62 and recovery efficiency of 0.76. Higher efficiency units are available, and would provide additional energy savings.

### Purchasing Tips:

- The most important measure of efficiency for water heaters is the Energy Factor EF. The higher the EF, the more efficient the water heater.
- Purchase a water heater whose tank is internally insulated with at least R-16. <sup>5</sup>

- A water heater that is too large for your home not only has a higher purchase cost but will increase your energy costs due to excessive cycling and standby losses. The resources below provide good, simple guidance on proper sizing of water heaters. The size, or "capacity", of a fuel-fired water heater should be judged by its first hour rating FHR, not its tank size. Due to larger burners, some gas water heaters with smaller tanks actually have higher capacities FHRs than models with larger tanks.
- Many types of water heaters are now available, such as "demand" tankless, "indirect" or "integrated", and solar-assisted water heaters. [More Information](#)
- New and/or efficient gas water heaters may have different venting and flue requirements. When replacing your water heater make sure your contractor assesses your existing flue, follows new code requirements for venting water heaters, and obtains necessary permits and inspections. [3](#)

#### More Information:

- [General Information from DOE](#)
- [DOE Water Heating fact sheet](#)
- [Top-Rated Energy-Efficient Water Heaters from ACEEE](#)
- [GAMA consumer's directory click on "Consumers"](#)
- [How to prevent health and safety problems with combustion equipment](#)

[\[Return to upgrades list\]](#)

### Install a programmable thermostat

#### Economic Benefits:

|                                    |                |
|------------------------------------|----------------|
| Estimate Yearly Bill Savings:      | <b>\$84</b>    |
| Estimated Lifetime Energy Savings: | <b>\$1,176</b> |
| Estimated Added Cost:              | <b>\$320</b>   |
| Maximum Price for 10 Year Payback: | <b>\$840</b>   |
| Return on Investment:              | <b>25%</b>     |
| Upgrade Pays for Itself in:        | <b>4 years</b> |



#### Additional Benefits:

Programmable thermostats can help keep your home more comfortable.

#### Upgrade Description:

Install an ENERGY STAR labeled programmable thermostat, and program it to change the temperature settings when you are away from home and at night. EPA estimates that ENERGY STAR-labeled programmable thermostats can save consumers 10-15% on heating and cooling bills when used properly. Note: Our calculations bill savings and cost-effectiveness assume that the heating-season set-point is decreased 4 degrees F during the day 9 am to 5 pm and at night 11 am to 7 pm, while the cooling-season set-point is increased 3 degrees F during those same periods. Larger set-point adjustments can provide additional bill savings.

#### Purchasing Tips:

- Some programmable thermostats have a "smart" feature designed to maximize energy savings. These thermostats continually monitor usage patterns in order to determine the best time to turn the system on in order to reach the desired temperature setting, while minimizing energy use.

#### More Information:

- [ENERGY STAR thermostat product list](#)
- [General Information](#)

[\[Return to upgrades list\]](#)

### When replacing your clothes washer, choose an ENERGY STAR-labeled model

#### Economic Benefits:

|                                    |                |
|------------------------------------|----------------|
| Estimate Yearly Bill Savings:      | <b>\$44</b>    |
| Estimated Lifetime Energy Savings: | <b>\$616</b>   |
| Estimated Added Cost:              | <b>\$180</b>   |
| Maximum Price for 10 Year Payback: | <b>\$440</b>   |
| Return on Investment:              | <b>23%</b>     |
| Upgrade Pays for Itself in:        | <b>4 years</b> |

#### Additional Benefits:

ENERGY STAR® clothes washers can reduce water use significantly, leave the clothes drier thus reducing drying time and energy

consumption, and reduce wear and tear on clothes.

#### Upgrade Description:

When replacing your clothes washer, choose an ENERGY STAR-labeled model. ENERGY STAR clothes washers can reduce energy consumption by up to 70% and are available in top-loading and front-loading designs. Some ENERGY STAR models use up to 50% less water in addition to saving energy.

Note: Our calculations bill savings, typical upgrade costs, and cost-effectiveness are for a model with the lowest efficiency that qualifies for the ENERGY STAR label.

#### Purchasing Tips:

- Choose a clothes washer with high-speed spin cycles. This feature removes more water from clothes, which reduces the energy and time required for drying.
- Select a low water-use, high efficiency washer. Front-loading tumble-action washers can cut energy use by up to 70 percent, reduce water consumption significantly, and may actually get clothes cleaner. <sup>1</sup>
- Look for pre-soaking and/or "suds saver" options which conserve energy.
- Clothes washers come with [EnergyGuide](#) yellow and black labels. Use these labels to select the most efficient model for the capacity you have chosen.

#### More Information:

- [ENERGY STAR clothes washer product list](#)
- [General Information from DOE](#)
- [Top-Rated Energy-Efficient Clothes Washers from ACEEE](#)

[\[Return to upgrades list\]](#)

### When replacing your main refrigerator, choose an ENERGY STAR-labeled model

#### Economic Benefits:

|                                    |                |
|------------------------------------|----------------|
| Estimate Yearly Bill Savings:      | <b>\$14</b>    |
| Estimated Lifetime Energy Savings: | <b>\$196</b>   |
| Estimated Added Cost:              | <b>\$87</b>    |
| Maximum Price for 10 Year Payback: | <b>\$140</b>   |
| Return on Investment:              | <b>16%</b>     |
| Upgrade Pays for Itself in:        | <b>6 years</b> |

#### Additional Benefits:

Energy-efficient refrigerators are quieter, run less often, release less heat into your kitchen, and keep their contents cool longer during power outages.

#### Upgrade Description:

When replacing your main refrigerator, choose an ENERGY STAR®-labeled model. ENERGY STAR refrigerators must exceed federal efficiency standards by at least 15%. Models that are up to 40% more efficient than the federal standards are available.

Note: Our calculations bill savings, typical upgrade costs, and cost-effectiveness are for a model with the lowest efficiency that qualifies for the ENERGY STAR label.

#### Purchasing Tips:

- Be especially careful in choosing a refrigerator because it will use more energy than any other kitchen appliance.
- Refrigerators with the freezer on the bottom or the top are the most efficient. Bottom-mounted freezer models use about 16% less energy than side-by-side models. Top-mounted freezer models use about 13% less energy than a side-by side. <sup>1</sup>
- Through-the-door icemakers and water dispensers are convenient and reduce the need to open the door, which helps maintain a more constant temperature. However, these convenient items will increase your refrigerator's energy use by 14 to 20%. <sup>1</sup>
- Too large a refrigerator wastes space and energy. One that is too small can mean extra trips to the grocery store. Decide which size fits your needs, then compare the [EnergyGuide](#) yellow and black label on each so you can purchase the most energy efficient make and model. The most efficient refrigerator size is 16-20 cubic feet. <sup>1,2</sup>

#### More Information:

- [ENERGY STAR refrigerator product list](#)
- [Consortium for Energy Efficiency refrigerator product list](#)
- [Top-Rated Refrigerators from ACEEE](#)
- [Energy Saving Tips for refrigerators from "Energy Savers"](#)

[\[Return to upgrades list\]](#)



## When replacing your secondary refrigerator, choose an ENERGY STAR-labeled model

### Economic Benefits:

|                                    |                |
|------------------------------------|----------------|
| Estimate Yearly Bill Savings:      | <b>\$12</b>    |
| Estimated Lifetime Energy Savings: | <b>\$168</b>   |
| Estimated Added Cost:              | <b>\$87</b>    |
| Maximum Price for 10 Year Payback: | <b>\$120</b>   |
| Return on Investment:              | <b>14%</b>     |
| Upgrade Pays for Itself in:        | <b>7 years</b> |

### Additional Benefits:

Energy-efficient refrigerators are quieter, run less often, release less heat into your kitchen, and keep their contents cool longer during power outages.

### Upgrade Description:

When replacing your secondary refrigerator, choose an ENERGY STAR®-labeled model. ENERGY STAR refrigerators must exceed federal efficiency standards by at least 15%. Models that are up to 40% more efficient than the federal standards are available.

Note: Our calculations bill savings, typical upgrade costs, and cost-effectiveness are for a model with the lowest efficiency that qualifies for the ENERGY STAR label.

### Purchasing Tips:

- Be especially careful in choosing a refrigerator because it will use more energy than any other kitchen appliance.
- Refrigerators with the freezer on the bottom or the top are the most efficient. Bottom-mounted freezer models use about 16% less energy than side-by-side models. Top-mounted freezer models use about 13% less energy than a side-by side. <sup>1</sup>
- Through-the-door icemakers and water dispensers are convenient and reduce the need to open the door, which helps maintain a more constant temperature. However, these convenient items will increase your refrigerator's energy use by 14 to 20%. <sup>1</sup>
- Too large a refrigerator wastes space and energy. One that is too small can mean extra trips to the grocery store. Decide which size fits your needs, then compare the [EnergyGuide](#) yellow and black label on each so you can purchase the most energy efficient make and model. The most efficient refrigerator size is 16-20 cubic feet. <sup>1,2</sup>

### More Information:

- [ENERGY STAR refrigerator product list](#)
- [Consortium for Energy Efficiency refrigerator product list](#)
- [Top-Rated Refrigerators from ACEEE](#)
- [Energy Saving Tips for refrigerators from "Energy Savers"](#)

[\[Return to upgrades list\]](#)



## DISCLAIMER

The Home Energy Saver website and related content were prepared as an account of or to expedite work sponsored at least in part by the United States Government. While we strive to provide correct information, neither the United States Government nor any agency thereof, nor The Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or The Regents of the University of California. Use of the Laboratory or University's name for endorsements is prohibited. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof or The Regents of the University of California. Neither Berkeley Lab nor its employees are agents of the US Government.

Berkeley Lab web pages link to many other websites. Such links do not constitute an endorsement of the content or company and we are not responsible for the content of such links.

## Information That You Voluntarily Provide

We do not collect personal information unless you choose to provide it to us. If you provide us with personal information, for example your address, we use that information to provide better information to you through the Home Energy Saver, as well as to further our research. While we strive to protect your personal information, our Laboratory conducts open fundamental research and cannot guarantee or warrant that your information will never be compromised or disclosed.

## How Information is Used

The information you provide on this site is used to provide the service to you, to improve the service, and to conduct and support research by Berkeley Lab researchers and their collaborators.

## Information Protection

For site security purposes and to ensure that this service remains available to all users, this University of California computer system employs software programs to monitor network traffic to identify unauthorized attempts to upload or change information, or otherwise cause damage. If such monitoring reveals evidence of possible abuse or criminal activity, such evidence may be provided to appropriate law enforcement officials. We may also share this information with other affiliated institutions in order to help secure other systems and networks. Unauthorized attempts to upload or change information on this server are strictly prohibited and may be punishable under California and Federal law.

## Sharing of Information

We may share the information you choose to provide to us with our research collaborators and our partners who help to provide this service. We may share the information you provide to us with the Department of Energy and other Federal Agencies. Information you share with us may also be covered by California and Federal laws that provide for mandatory disclosure under certain circumstances, such as subpoenas and records requests.

A full description of the privacy policy and disclaimers can be found at the [following web site](#).