

# PRACTICAL ENERGY SAVING TIPS



People. Power. Possibilities.

**Central Hudson**

A FORTIS COMPANY



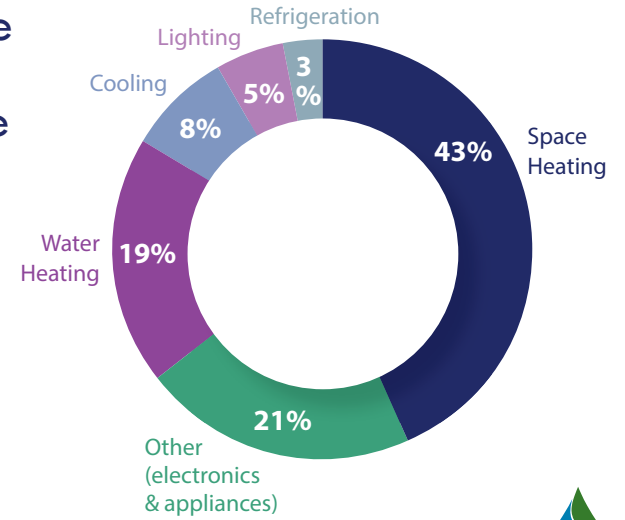
# Saving Energy

Cut costs and your carbon footprint with energy efficient actions. Get the most out of each energy unit you pay for by using energy wisely and eliminating waste wherever possible.

There are many simple no- and low-cost steps, and other investments you can make to lower your energy bills. Energy efficiency pays for itself through the energy and cost savings realized year after year, and can add value to your home.

## How We Use Energy in the Average Home

Source:  
U.S. Energy  
Information  
Administration



Central Hudson received the 2020 ENERGY STAR Partner of the Year Award for outstanding efforts in promoting and educating customers on energy efficiency and ENERGY STAR certified products. In addition, the company received the Excellence in ENERGY STAR Promotion award in 2018 and 2019. Central Hudson is a proud partner of ENERGY STAR and WaterSense.





**Lighting is one of the easiest places to start saving energy while producing less greenhouse gas emissions.**

Convert your lights to LEDs — the most energy efficient light bulbs that use up to 90% less energy and last up to 15 times longer than incandescent bulbs. LED bulbs provide greater savings and better light quality than CFL bulbs and contain no mercury.

LED bulbs light up immediately, stay cool to the touch and have no sensitivity to cold temperatures. Prices of highly efficient LEDs have fallen and many can now be used with dimmer switches.

**Shop two ways for LED lighting with instant savings:**

- Shop **in-store** in the lighting sections of most of your local Home Depot, Lowe's, Walmart, Sam's Club, Target, Hannaford, BJ's, Dollar Tree, Dollar General and Ace/True Value Hardware stores. Look for Central Hudson signage for reduced pricing.

# Lighting

By upgrading just six of your most-used incandescent bulbs to LEDs, you can save up to \$90 per year in energy costs.

## Energy Saving Tips

**Use ENERGY STAR® certified light fixtures and lamps.** They use one-quarter of the energy traditional fixtures use.

**Install dimmer switches.** By installing dimmers and using only the light you need, you can save up to 40% on lighting costs. Be sure to select dimmers that are compatible with the bulbs you choose.

**Use motion sensors for outdoor lighting.** Install a motion sensor to reduce energy use of outdoor lighting by up to 80% without compromising security or style.

**Choose solar fixtures.** Illuminate outdoor paths with lamps fitted with batteries that store energy from the sun.

# Water

Water heating is the 2nd single largest energy expense in most homes.

According to the Environmental Protection Agency, each American uses an average of 88 gallons of water per day at home. The typical family wastes on average 180 gallons per week, or 9,400 gallons of water annually from household leaks. That's equivalent to the amount of water needed to wash more than 300 loads of laundry. Make sure all faucets and toilets are leak-free and hire a plumber, if needed, for any repairs.

Replacing old, inefficient faucets and aerators with WaterSense labeled models can save 700 gallons of water per year. Replacing showerheads with WaterSense labeled models can reduce a family's water and energy costs by \$70.

## Energy Saving Tips

Hot water is essential to most of our lives. We use it to shower, run the dishwasher and wash clothes. Reducing your hot water use and employing energy saving strategies can help you save.

**Turn down the temperature.** Water is usually heated to 140°F on your water heater. Lowering this setting to 120°F will save 6%–10% on your energy bill and will help prevent scalding. If going on vacation, turn down the thermostat to the lowest setting, or vacation mode. If there is no risk of freezing, you can turn it off completely when going away for several days.

**Install a heat pump water heater that fits your needs.** If your water heater is too big, you will pay to heat water you do not need. **Central Hudson provides rebates on heat pump water heaters. Go to [CentralHudson.com/Incentives](http://CentralHudson.com/Incentives) for details.**

**Wrap your water heater with an insulating blanket.** Insulating could reduce standby heat losses by 25%–45% and save you about 4%–9% in water heating costs.

**Consider a tankless water heater.** Heat water on demand, rather than storing a reservoir that is always kept hot.

## WaterSense

WaterSense is a voluntary partnership program sponsored by the U.S. Environmental Protection Agency.

WaterSense labeled products and services are certified to use at least 20% less water, save energy and perform as well as or better than regular models.



**Appliances represent 9% of your energy bill.** Specifically, refrigerators and clothes dryers typically have the highest operating costs per year.

Considering the amount of time you're likely to keep an appliance, it's worth investing in energy efficient models.

Refrigerators have an average lifespan of about 12 years, while washing machines tend to last 11 years.

An EnergyGuide label on each appliance shows you how much energy a model uses so you can compare the energy costs of each model you're interested in.

If buying appliances is not in your budget, there are still ways you can save. Making sure to unplug appliances when not in use, or using advanced power strips, will help reduce energy costs. Roughly 50 devices and appliances in the typical household drain or draw power, even when they appear to be off. Some of these appliances can cause substantial increases to your energy usage. Unplugging your microwave, toaster oven and other unused appliances could save \$10–\$20 per year.

# Appliances

## ENERGY STAR: A Label for Savings

ENERGY STAR certified products meet strict guidelines set by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy.



Windows, heating and cooling equipment, lighting and appliances can all earn ENERGY STAR qualification.

Every appliance has two price tags. The first is the purchase price for the appliance. The second is the price you pay to run that appliance over its lifetime.



# Kitchen

Don't keep your refrigerator or freezer too cold. Recommended temperatures are 35°F to 38°F for refrigerators and 0°F for freezers.

## The appliances you choose make a difference.

Out of the estimated 190 million refrigerators in use in the U.S., more than 68 million are more than 10 years old, costing consumers \$5.5 billion a year in energy costs. Select top-freezer refrigerator models that have earned the ENERGY STAR use less energy than a 60-watt (or 800-lumen LED) light bulb.

A standard-sized ENERGY STAR certified dishwasher costs about \$35 per year to run and saves on average, 3,870 gallons of water over its lifetime.

Convection ovens use about 20% less energy a month compared to standard ovens. Induction cooktops use electricity and magnetic coils to quickly heat pans, making a more energy efficient stove.

## Energy Saving Tips

**Maintain your refrigerator and freezer.** Make sure refrigerator and freezer door seals are tight, and clean your refrigerator coils every six months to prevent your appliance from over working.

**Place the faucet lever on the kitchen sink in the cold position when using small amounts of water.** Placing the lever in the hot position draws hot water even though it may never reach the faucet.

**Run full dishwasher loads.** As with washing machines, most of a dishwasher's energy needs go to heating the water. Running full loads, activating energy saving features and air drying lead to big savings.

## **\$100** Free Appliance Recycling

Let us pick up your old, working fridge or freezer, for free, and we'll give you a \$100 check!

Visit [RecycleMyAppliance.com](http://RecycleMyAppliance.com) to confirm eligibility and schedule a pick-up.

Shop for a new refrigerator or freezer at The Home Depot and schedule a pick-up at the time of purchase.

**Added bonus:** Recycle up to two window air conditioning units at the same time as picking up your refrigerator or freezer appliance. While we don't issue additional rebates for A/C units, you can enjoy the convenience of free removal and knowing your items are being recycled responsibly.



**ENERGY STAR certified clothes washers and dryers use up to 25% less energy than conventional models.**

Conventional washers can use 40 gallons of water on just one load of laundry. But ENERGY STAR certified washers can use fewer than 10 gallons of water.

If all clothes dryers sold in the U.S. were ENERGY STAR certified, Americans could save \$1.5 billion each year in energy costs and prevent greenhouse gas emissions equivalent to the amount produced by more than 2 million vehicles.

## Energy Saving Tips for Washing Clothes

**Wash clothes with cold water and use cold-water detergents.** Washing clothes uses a lot of energy, especially if you use hot water. About 90% of the energy used is just to heat the water.

**Wash only full loads.** Machines use roughly the same amount of energy to wash one item as they do a full load. If you are washing a small load, use the appropriate water-level setting.

## ENERGY STAR Certified Washing Machines...

- Cut energy bills by an average of \$50 per year. That's a total of \$550 saved over 11 years, the average lifespan of a washing machine.
- Save an average of 7,000 gallons of water each year.
- Have a faster spin speed to remove more water from your clothes, which helps dry clothes faster.

# Laundry

## Energy Saving Tips for Drying Clothes

**Use sensor drying.** This feature ensures that your dryer will automatically shut off when clothes are dry.

**Use a low-heat setting.** Longer drying cycles on a low-heat setting use less energy.

**Hang your laundry to dry.** Hang-drying saves energy and reduces wear and tear on clothes, which helps them last longer.

**Periodically inspect your dryer vent.** Making sure it is not blocked can prevent a fire and will also save energy.

Use less water and use cooler water to reduce energy usage when washing clothes.



Consumer electronics play an increasingly larger role in your home's energy consumption, accounting for up to 12% of household electricity use.



**Electronics draw energy even when idle or off, and the costs add up.**

## Energy Saving Tips

**Choose an efficient television.** ENERGY STAR certified models use 40% less energy than similar non-certified models.

**Activate automatic brightness control (ABC).** Brighter TVs use more energy. ABC automatically adjusts TV brightness relative to room brightness, reducing power consumption.

**Don't use gaming consoles to stream videos.** You're using an energy inefficient device to do what other dedicated devices can do more efficiently.

**Use a laptop instead of a desktop computer.** Laptops are 85% more energy efficient than desktops because they require less electricity to operate.

**Unplug or use a power strip to turn off computer equipment when not in use.** Your printer, copier and scanner could be wasting up to half the energy they use.

**Use a power meter.** These devices can help you root out the main culprits in your home's electronics collection and identify opportunities for savings.

## Advanced Power Strips: A Smart Way to Save

Replace your conventional power strips with advanced power strips (APS) to reduce the amount of energy your devices draw, without changing the way you normally use your electronics. Household devices such as computers, DVD players, home theater systems and televisions go to a standby state when not in use, but still consume some energy. This is known as vampire load.

U.S. households spend approximately \$100 per year to power devices while they are in a low-power standby mode. Using an advanced power strip for your electronics allows you to completely disconnect the power supply from the power source, allowing you to save.

# Electronics



# Seasonal

Heating accounts for 43%, and cooling 8%, of your energy usage.



Heating and cooling needs vary by season, but by combining proper equipment maintenance and upgrades with recommended insulation, air sealing and thermostat settings, you can save about 30% on your energy bill while reducing environmental emissions.

## Energy Saving Tips

**Use a ceiling fan year-round.** The fan has a cooling effect in the counter-clockwise direction. In the clockwise direction at a low speed, the fan produces a gentle updraft, forcing warm air near the ceiling down into the occupied space.

**Keep shades/drapes closed in the summer and open in the winter.** Shade will help keep your house cool in the summer and sunlight will help warm it in the winter.

**Check your fireplace flues.** Over time, repeated heating and cooling can cause the flues to warp or break, creating a channel for air loss.

**Close your fireplace damper when not in use.** Forgetting to close the damper after a fire goes out leaves a big “hole” where heated or cooled air can escape the house.

**Lock your windows.** Even when closed, they might not be pressed tightly against the weatherstripping if they’re not locked, which allows cold outside air to infiltrate the home.

**Install storm windows.** For older windows, use a plastic window sealing kit or storm windows to cut drafts.

## Programmable and Smart Thermostats

Smart thermostats automatically adjust your home’s temperature to maximize your savings by turning down the heat while away during the day and while you’re asleep at night. Used properly, they can save up to \$150 a year, according to ENERGY STAR.

When using a programmable thermostat in the winter, make a schedule and stick to it. Set back the heat two hours before you go to bed and increase it just before you wake. Set back the heat during the day if no one will be home for four or more hours. Lowering thermostats one degree per eight hours can save up to 1% on heating bills.

Setting your air conditioner thermostat a few degrees higher in the summer also helps with savings.

**Instant rebates are available in-store at local retailers, or download a mail-in rebate form. For details, go to [CentralHudson.com/ShopLocal](http://CentralHudson.com/ShopLocal).**



# Heating

An energy efficient heating system saves more than money. It saves natural resources, reduces air emissions and helps create a cleaner environment for all of us.

## Energy Saving Tips

**Schedule preseason tune-ups each fall on your heating system, including air ducts.** This maintenance will ensure equipment is running safely and efficiently. If ducts are poorly sealed or insulated, they are likely contributing to higher energy bills. If your ducts are not insulated and air travels through an unheated space — such as an attic or crawl space — you can lose up to 60% of your heated air before it reaches the register. Schedule your appointment early in the season since contractors often get very busy once heating season begins.

**Check filters.** Forced air furnaces and heat pumps have filters that need to be cleaned or replaced regularly.

**Check air vents, radiators and registers.** If they are blocked by furniture or drapes, heat won't get into the rest of your home. To cut heating costs, arrange your room so that the register is as unobstructed as possible.

**For a list of heating contractors in Central Hudson's network, go to [SavingsCentral.com/TradeAllies](http://SavingsCentral.com/TradeAllies).**

## Clean Heat

Consider upgrading your home to a cold climate heat pump system. Air-source and ground-source (geothermal) heat pumps are very efficient at converting energy to heat and also have the ability to cool your home in warmer weather. Equipment has evolved significantly to meet the needs of colder climates. The cost to heat a home with a heat pump is lower than oil, propane and electric baseboard. Heat pumps are a cleaner, more environmentally friendly alternative.

**Central Hudson offers incentives on efficient heat pumps, furnaces, boilers and water heaters for its customers. For information, go to [CentralHudson.com/Incentives](http://CentralHudson.com/Incentives).**

{ Cranking up the furnace will not heat your home any faster and will burn more energy in the long run.



# Cooling

Three-quarters of all homes in the United States have air conditioners and cost homeowners about \$29 billion annually.



**Nearly half of the average household's summer electric bill is spent on cooling the home.** Before you turn on the air conditioner, reduce your need for cooling. Use fans and natural ventilation first. Only turn on the air conditioner if these measures aren't enough.

## Energy Saving Tips

**Prevent future problems and ensure your A/C compressor is running at its best.** Proper maintenance by a qualified technician is one of the most important steps you can take to prevent future problems. It's best to check the cooling system in spring. By following maintenance procedures, a quality model may hold up for 20 years.

**Make sure your duct system is clean and in good condition.** The unit will not operate efficiently if the duct system is dirty or in poor condition. Duct sealing can reduce cooling energy use by 10%–15%.

**Clean filters regularly.** Dirty or clogged filters block airflow and reduce efficiency.

**Ensure room air conditioners are tightly sealed.** If the unit is installed incorrectly, without a tight seal, cooled air will escape and drive up your energy bill.

**Place your room air conditioner properly.** Place the unit in a shaded window where it will not be heated by sunlight, which can help prevent the thermostat from reading higher than it should.

**Consider air-source heat pumps.** They are extremely efficient, making them more affordable to operate. Unlike air conditioners, heat pumps are able to offer both cooling and heating from the same unit. [Go to CentralHudson.com/ASHP](https://www.centralhudson.com/ASHP) for information on available rebates.

## Size Matters

When you buy a new air conditioner, make sure to get one that's the right fit for your home.

If you buy one too big, it won't remove the humidity from your home and it will turn on and off more frequently than a properly sized system. That increases the wear and shortens its lifespan. If you buy one too small, it won't be able to cool your home enough on the hottest days of summer.

Have a contractor help determine the size of the system that will best fit your home.

A photograph of an attic space showing yellow insulation between wooden joists. A window is visible in the lower-left corner.

# Insulation

Increasing your home's insulation is one of the fastest and most cost-effective ways to reduce energy waste.

**Sealing and insulating your home can reduce your heating and cooling costs by as much as 30%, according to the U.S. Department of Energy.**

Heat naturally flows from warm areas to cool ones. If your home isn't well sealed, the air you use to heat and cool can flow right out of your home.

Several areas are prone to air leaks, including the attic, basement, windows, doors, baseboard molding, electrical outlets, wall- or window-mounted air conditioners and dropped ceilings above bathtubs and cabinets.

## Energy Saving Tips

**Caulk cracks and gaps less than ¼-inch wide.** Caulk is flexible and a good way to seal air leaks. Apply it when the outdoor temperature is above 45°F and not very humid, or the caulk may not dry properly.

**Weather strip doors and windows.** It's an easy way to seal leaks. Compression and V-strip weather stripping are good for windows. For doors, either replace the threshold or attach a door sweep to seal the air gap at the bottom of the door.

**Install foam gaskets behind outlet and switch plates on walls.** Outlets and switch plates are some of the most common sources of air leaks.


**Nine out of 10 homes in the U.S. are under insulated, according to the U.S. Department of Energy.** Learn how to check your insulation level and make updates at [energystar.gov/newhomes/rule\\_your\\_attic](https://energystar.gov/newhomes/rule_your_attic).

**Use higher R-value insulation.** Higher R-value insulation, such as spray foam on exterior walls and cathedral ceilings, gives you more insulation with less thickness.

## Finding Air Leaks

For a thorough and accurate measurement of air leakage in your home, hire a qualified technician to conduct an energy assessment, particularly a blower door test. In the meantime, you can:

- Shine a flashlight at night over all potential gaps while a partner observes the house from outside. Large cracks will show up as rays of light. This method is not a good way to detect small cracks.
- Shut a door or window on a dollar bill. If you can pull the dollar bill out easily, you're losing energy.



As much as 50% from the water we use outdoors is wasted from inefficient watering systems and methods.

# Yard



**Residential outdoor water use across the United States accounts for nearly 9 billion gallons of water each day, mainly for landscape irrigation.**

Sprinklers can use more than 260 gallons of water per hour — and the bills add up quickly, whether you use a well pump or municipal source.

## Energy Saving Tips for Water Conservation

**Check your aim.** The sprinkler should only water your lawn, not a nearby yard or sidewalk.

**Use a drip hose instead of a sprinkler.** Sprinklers spray water onto the top of plants, where it evaporates. Drip hoses deliver water to a plant's roots.

**Time matters.** Water early in the morning or late at night, when temperatures are lower to cut down on water evaporation.

**Let your grass grow.** Longer grass loses less water to evaporation than short grass and helps shade the roots, reducing browning and weed growth as well as water needs.

**Test your lawn.** It's usually not necessary to water grass every day. Step on a patch of grass; if it springs back, it doesn't need water.

**Choose drought-resistant plants.** If maintained properly, a landscape of drought-resistant and native plants will use less than half the water of a traditional yard.

## Energy Saving Tips for Landscaping

**Design your landscape to your advantage.** A well-placed tree, shrub or vine can deliver effective shade, act as a windbreak and reduce your energy bills. Carefully positioned trees can save up to 25% of the energy a typical household uses. Deciduous trees drop their leaves in winter, allowing the sun's warming rays to warm your home.

**Plant trees that lose leaves on your home's south side.** They protect your home from the summer sun. After the leaves fall, they let the winter sun help heat your home.

# Safety

While maximizing energy savings throughout your home, always keep safety in mind.

## Safety Tips

**Appliances:** More powerful appliances may need their own separate circuit. Have an electrician look at your wiring to ensure that it's up-to-date.

Your oven and stove were designed for cooking. Never attempt to heat your home with them. Doing so can create a fire hazard and cause a deadly build-up of carbon monoxide (see sidebar).

Unplug any appliance while you are cleaning or repairing it.

**Heating:** Keep the area around your furnace clear. If adding a wood burning or pellet stove, be sure it is professionally installed and vented.

**Dryers:** Rigid or flexible metal venting material should be used to sustain proper air flow and drying time. Keep dryers in good working order and clean dryer vents regularly. Gas dryers should be inspected by a professional to make sure that the gas line and connection are intact and free of leaks. Turn the dryer off if you leave home or when you go to bed.

**Electronics:** Don't overload outlets with too many devices, as they may overheat and cause a fire.

For more safety tips, go to [CentralHudson.com/Safety](http://CentralHudson.com/Safety).

## Carbon Monoxide Detectors

Often called the invisible killer, carbon monoxide (CO) is an odorless, colorless gas created when fuels (such as gasoline, wood, coal, natural gas, propane, oil and kerosene) burn incompletely. Symptoms of carbon monoxide poisoning include dizziness, headache, nausea, irregular breathing and confusion, and if undetected, can cause death.

Stay safe:

- Install CO detectors in your home, including the area near the heating system, any fuel-burning appliances and near the bedrooms. Follow manufacturer installation instructions.
- If the CO alarm sounds, immediately move to a fresh air location outdoors. Make sure everyone inside the home is accounted for. Call for help and stay there until emergency personnel arrive.

# Cut Costs and Your Carbon Footprint



Take advantage of available rebates to make a positive change in the way you utilize energy for a healthier and greener tomorrow.



**Electric vehicles:** All-electric vehicles produce no tailpipe emissions. Plug-in hybrids only produce emissions when the combustion engine is engaged, and provide reduced annual costs on gasoline and maintenance. New York residents can benefit from a **Drive Clean Rebate of up to \$2,000** on a new plug-in car purchase and a **federal tax credit up to \$7,500** on select models. Most electric vehicle manufacturers offer additional incentives. Visit [CentralHudson.com/EVs](http://CentralHudson.com/EVs) to learn more.

## Powering the Path to a Cleaner Future

As part of our Powering the Path to a Cleaner Future initiatives, Central Hudson offers a robust portfolio of programs and incentives designed to drive cost-effective energy savings in both the residential and commercial sectors. To learn more, go to [CentralHudson.com/PoweringthePath](http://CentralHudson.com/PoweringthePath).



**Geothermal:** Take advantage of the naturally occurring difference between above-ground and subsurface temperatures for efficient and cost-effective heating and cooling. **High-value rebates based on system size start at \$1,500.** Visit [CentralHudson.com/Geothermal](http://CentralHudson.com/Geothermal) to learn more.



**Air-source heat pumps:** They are extremely efficient, making them affordable to operate. Unlike air conditioners, heat pumps are able to offer both cooling and heating from the same unit. Visit [CentralHudson.com/ASHP](http://CentralHudson.com/ASHP) to learn more.



**Natural Gas:** Natural gas has fewer impurities and produces less pollution than heating oil, reducing the cost of system maintenance. It is also the most long-term cost stable fuel, which provides significant savings for many homeowners. **Rebates are available for switching to energy efficient equipment.** Visit [CentralHudson.com/SimplyBetter](http://CentralHudson.com/SimplyBetter).

# Short on time?

Below are some actionable tips and easy DIY projects that can result in big savings on your energy bills.



## Lighting

Replace incandescent and halogen bulbs with LEDs to save up to \$15 in energy costs per bulb, per year. LEDs are available in a range of shapes and sizes appropriate for virtually all fixtures, indoor and out. **Learn more on page 3.**



## Electronics

Unplug appliances and devices when not in use, or install advanced power strips to save approximately \$100 per year.

**Learn more on page 13.**



## Air Sealing/Insulation

Feel a draft? Find it and fix it. Caulk is a flexible and good way to seal air leaks from cracks less than ¼-inch wide around windows, doors and other seams. Also weather strip doors and windows, and install foam gaskets behind outlets and switch plates. A properly sealed and insulated home can reduce heating and cooling costs by 30%.

**Learn more on page 21.**



## Water

Fix leaky faucets. A one-drip per second leak wastes 1,661 gallons of water and \$35 per year. **Learn more on page 5.**



## Heating/Cooling

Turn your thermostat down in winter and up in summer. Changing by 7-10 degrees for eight hours or more can result in 10% savings. **Learn more on pages 17 and 19.**

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### Sources

The U.S. Department of Energy: [www.energy.gov](http://www.energy.gov); ENERGY STAR, a joint program of the U.S. Department of Energy and the U.S. Environmental Protection Agency: [www.energystar.gov](http://www.energystar.gov).

All estimates for energy savings vary by region and for each individual family. Savings are meant to be suggestive and are estimated based on research and other findings. Rebate amounts are subject to change.



[www.CentralHudson.com](http://www.CentralHudson.com)