

WHAT TO LOOK FOR IN A HEATING SYSTEM



Before you buy, build or renovate, consider the type of heating system you would like for your home.

Remember, the heating system you choose will heat your home for years to come.

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Important things to consider when choosing a heating system for your home:

- ✓ Initial cost;
- ✓ Operating cost;
- ✓ Annual service or maintenance fees;
- ✓ Amount of space required;
- ✓ Temperature control; and
- ✓ Environmental impact.

Whatever heating system you choose, be sure to make your home energy efficient and use high performance thermostats to maximize the comfort and efficiency of your new system.

Electric Heat is...

Safe ➤ No flames, fumes or combustible fuels in your home.

Space Saving ➤ No need to give up valuable space for a furnace, tank, chimney or vent.

Dependable ➤ No waiting for fuel delivery.

Maintenance Free ➤ No annual maintenance or service fees.

Environmentally Safe ➤ No possibility of fuel oil leaks and subsequent clean-up costs.

Finance your next electric heating system with Newfoundland Power

Newfoundland Power's financing program is a convenient way for you to purchase an electric heating system. With competitive interest rates and no money down, you can finance your purchase over 60 months through payments on your monthly electrical bill.

Financing is available for:

- ✓ Electric Heating Systems
- ✓ Electric Water Heaters
- ✓ New Electrical Services
- ✓ Electric Service Upgrades
- ✓ Heat Recovery Ventilation Systems
- ✓ Electric Fireplaces

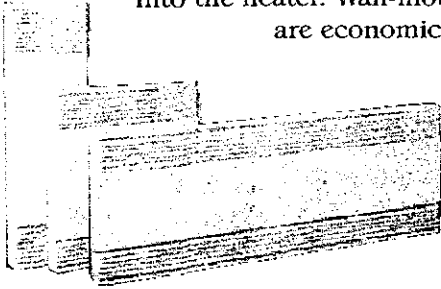
If you are interested in financing any of these items or you would like to have more information about our financing program, contact one of our knowledgeable Customer Service Representatives from 8:00 a.m. to 8:00 p.m., Monday to Friday.

Electric Heating Systems

Electric Baseboard is the most popular heating system on the market today and offers the lowest up-front cost. This system takes up very little living space, offers the benefit of room-by-room temperature control and is virtually maintenance free.



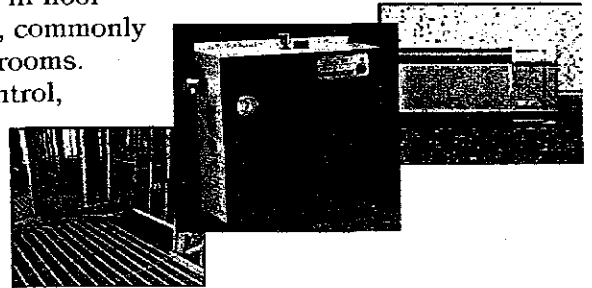
Wall-Mounted Heaters use normal convection currents to move heat evenly throughout a room. These heaters use self-programming electronic thermostats that can either be installed on the wall or built into the heater. Wall-mounted heaters offer an alternative style, excellent temperature control and are economical and practically maintenance free.



Hot Water Radiation Furnaces use hot water to heat your home. The furnace is very compact and because it requires zero wall clearance, the unit can be installed practically anywhere, such as in a closet, a cupboard or directly on a wall. Heat is distributed throughout the home by hot water radiation baseboard heaters or through an in-floor radiation system and is, commonly used in kitchens and bathrooms.

For improved temperature control,

the system can be zoned so that different sections of your home can have different temperatures. The electric hot water radiation furnace is suitable for new home construction or can easily replace an existing oil hot water radiation furnace by utilizing the existing distribution pipes and heaters.



An Electric Forced-Air Furnace is a central heating system that distributes warm air through duct work. This system can be zoned for maximum temperature control and comfort. This zero clearance furnace is compact and can be installed in a closet or close to a wall. An electric forced-air furnace can easily replace an oil furnace at the end of its useful life by utilizing existing duct work.



Air and Ground Source Heat Pumps

All electric heating systems operate at 100 per cent efficiency with the exception of the air and ground source heat pumps, which operate at 200 per cent and 300 per cent, respectively. Heat pumps are the most efficient heating systems today offering the lowest operating cost. These central heating systems use duct work to distribute heating during the winter and cooling during the warmer months.

Heat pumps extract heat from the outdoor environment to meet the indoor temperature setting. When more heat is needed than the heat pump can efficiently extract from the outdoor air or ground, an electric back-up system is used to meet the indoor temperature requirements.



An air source heat pump has a unit outside your home to collect heat from outside air and can heat a home for almost 50 per cent less than an electric baseboard system.

A ground source heat pump collects heat from pipes inlayed in the ground and can heat your home for almost 65 per cent less than an electric baseboard heating system.



Wrap Up For Savings Program

This is a rebate and financing plan for insulation and/or wiring upgrades.

This program has two components - financing and rebates.

- Financing and rebates are available for insulation upgrades to basements, crawl spaces and attics.
- Financing is available for the installation of electric heat or wiring in a new addition or renovated area of the home.

Installation requirements must be met to provide maximum air-tightness and insulation value. Newfoundland Power energy advisors will make two home visits, one prior to the installation and one at completion.

Benefits:

- Improve the comfort level of your electrically heated home by reducing drafts and making your floors warmer.
- Lower energy costs by reducing heat loss through basements and attics.
- Increase resale value of home.

Eligibility: residential electric heat customers. Financing is subject to credit approval.

Who to contact: energy consultants in any Newfoundland Power office or call the Power Smart number at 1-800-567-8700.

Heating Conversion Cost Analysis

This is a free service for those who may be considering converting to another heating source.

We will review your current electricity usage and compare this amount to the costs of other heating systems to give you an accurate conversion estimate.

Benefits:

- You can make a decision whether or not to convert based on the whole picture.
- We will provide you with free energy advice to help make your current heating system operate more efficiently.

Eligibility: residential and small commercial electric heat customers.

Who to contact: energy consultants in any Newfoundland Power office or call the Power Smart number at 1-800-567-8700.

Water Heater Financing Program

This is a financing plan for energy efficient water heaters.

- Finance the purchase and installation of an energy efficient C191 electric water heater through Newfoundland Power.
- Participating plumbers and suppliers sell and/or install the energy efficient water heaters and complete the loan application.
- Eligible models include 40 and 60 gallon sizes, and a 10 year long life electric water heater.

Benefits:

- You can have an energy efficient electric water heater installed without incurring the up-front purchase and installation costs.
- Payments are made on your monthly electric bill over one to three years.

Eligibility: residential customers.

Financing is subject to credit approval.

Who to contact: for a list of participating plumbers and eligibility criteria call the Power Smart number at 1-800-567-8700.

Consumer's Guide to Power Smart Programs and Services



POWER SMART
1 800 567 8700
NEWFOUNDLAND POWER

Power Smart Financing Plan

Financing is now available through Newfoundland Power for the purchase and installation of the following:

- Electric home heating systems, including traditional baseboard heaters, wall mounted heaters, panel convactor heaters, forced air furnaces, hot water radiation, and heat pumps.
- Wiring improvements, including the addition of general use outlets, heavy appliance outlets and ground fault interrupters, thermostats, and wiring for heating, appliances and lighting.
- Electric service upgrades, including amperage upgrades, voltage upgrades, and relocation of panel and meter.
- Heat Recovery Ventilation Systems.
- Electric Fireplaces and mantles.

Benefits:

- Improve the comfort level of your home.
- Finance the electric heating system of your choice.
- Improve or add electrical services without incurring the up-front purchase and installation costs.

Eligibility: residential customers. Financing is subject to credit approval.

Who to contact: applications and brochures are available from our energy consultants in any Newfoundland Power office or by calling the Power Smart number at 1-800-567-8700.

Home Comfort Program

This is a customer information program designed for new home-builders. A free information package is available to help you make your home more comfortable. The information kit includes:

- Details on the variety of electric heating systems available. Choose the electric heating system of your choice while retaining the convenience, cleanliness and safety advantages of electricity.
- Details on high comfort thermostats, improve air lighting, wiring, R2000 construction standards, water heating and insulation.
- Information on other Newfoundland Power services such as the Home Heating Systems Financing Plan and the Heating Design Service.

Benefits:

- Help you build a comfortable, energy efficient home.

Eligibility: residential customers.

Who to contact: information package available by contacting an energy consultant or technician in any Newfoundland Power office or by calling the Power Smart number at 1-800-567-8700.

Heating Design Service

This is a free electric heating design service. By providing a copy of your home's blueprints, you can receive a home heating design which will include:

- Electric baseboard heater sizes and appropriate locations for each room.
- Operating costs for current building code standard and R2000 standard.
- Total annual costs of heat, including operating, maintenance and capital costs for: electric baseboard, electric forced air furnace, electric hot water radiation, heat pumps, as well as oil and propane forced air furnaces and hot water radiation systems.
- Advice on energy efficient home construction, including thermostats, mechanical ventilation, insulation, electric services and water heating.

Benefits:

- Efficient electric heating design.
- Evaluation of the costs and benefits of various heating systems prior to installation.
- Assurance that your heating system is properly sized to provide the maximum comfort and energy efficiency.

Eligibility: new residential home owners and small commercial buildings.

Who to contact: energy consultants or technicians at any Newfoundland Power office or call the Power Smart number at 1-800-567-8700.

High Comfort Thermostat Program

This program offers a cash discount on a selection of high comfort thermostats and provides financing for their installation. Bring a Newfoundland Power coupon to a participating dealer and you can receive an instant \$4.00 off the purchase price of a high comfort thermostat.

Call Power Smart to arrange for an electrician to install the thermostats and finance the cost over three years.

Thermostats eligible for the discount are listed below.

- Honeywell T4398A/B
- Honeywell T4098A/B
- Honeywell T4800
- Honeywell T86
- Honeywell T4798S
- Honeywell T4600
- Honeywell T8132
- Ouellet OTE11

Benefits:

- Improved temperature control and comfort.

Eligibility: residential customers and contractors building new homes. Financing is subject to credit approval.

Who to Contact: Coupons and a list of participating dealers and electricians are available by calling the Power Smart number at 1-800-567-8700.

Building a New Home?

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Building a new home is very exciting! Careful planning before you build can save you money and ensure that your home is everything you dreamed it would be.

One of the more important decisions you will have to make is how you will heat your home.

IMPORTANT THINGS TO CONSIDER ...

- The initial cost of the heating system
- The system's operating cost
- Any annual service or maintenance fees
- The amount of space the heating system requires
- The temperature control it provides
- The effect the system has on the environment

When you factor these points into your decision, the best choice is to install an electric heating system.

There are many electric heating systems to choose from, including:

- Electric Baseboard;
- Electric Hot Water Radiation;
- Electric Forced-Air Furnaces; and
- Ground Source and Air Source Heat Pumps.

Electric heating is reliable, comfortable and environmentally friendly, offering room-by-room control, low maintenance and price stability.

Newfoundland Power offers several **Customer Service Programs** to help you build a comfortable home, including:

- financing for electric heating systems and new electrical services or upgrades;
- an insulation Rebate Program for basement insulation; and
- convenient Payment Options to help you manage your electrical bill.

To request an information package, please contact Customer Service at:

(709) 737-2802 or toll free at 1-800-663-2802
E-mail us at

icsmail@newfoundlandpower.com or visit us
online at www.newfoundlandpower.com

Building a New Home?



HERE'S WHY YOU SHOULD BUILD AN R2000 HOME

R2000 - It's the healthy new home choice!

R2000 homes are comfortable and healthy with an independently tested fresh-air ventilation system. The materials used in building R2000 homes are selected with the environment and your health in mind. If you're concerned about the quality of the air you and your family breathe, you'll feel good in an R2000 home.

R2000 homes are built by the best in the business!

R2000 builders are highly skilled. Earning an R2000 Builder License takes special training and a commitment to stay up-to-date with the latest home building technology.

R2000 - The highest construction standards!

R2000 construction goes well beyond what the building code requires and the difference is noticeable! Solid draft-free construction, less noise from the outside and consistent temperatures throughout your home will keep you feeling comfortable.

No other home offers this level of quality assurance. And every R2000 home comes with a warranty. It all adds up to peace of mind that you can feel good about!

R2000 and Electric Heat

Electric heat is 100% efficient and easily meets the energy efficiency requirements of an R2000 certified home.

Newfoundland Power is proud to support the R2000 Program which is administered by the Newfoundland and Labrador Home Builders Association in our province.

For more information call the Newfoundland and Labrador Home Builders Association at (709) 753-2000 or 1-800-265-2800 or visit www.builders.nf.ca

Electric heat is...

economical

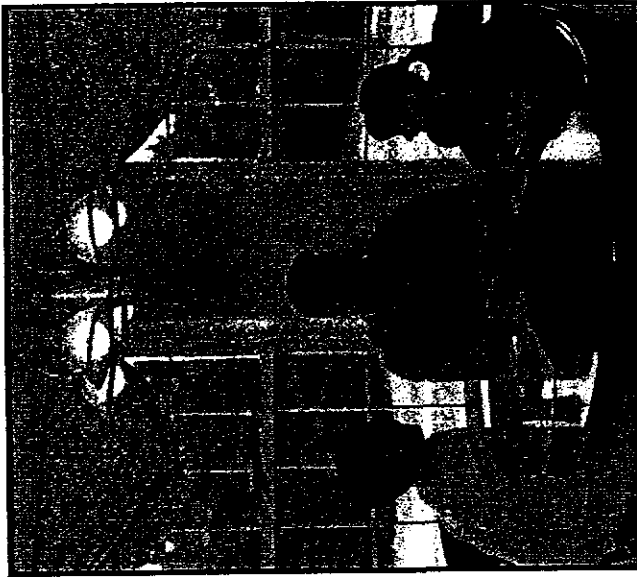
comfortable

reliable

*environmentally
friendly*

and

*virtually
maintenance-free!*



**Electric heat...
the economical choice.**

**Newfoundland Power
Customer Service**

Telephone 737-2802 or 1-800-663-2802
E-mail at icsmail@newfoundlandpower.com
Online: www.newfoundlandpower.com

*To make an informed decision
on a heating system for your home or
to find out how you can finance
through Newfoundland Power,
contact our knowledgeable
customer service representatives
and request an
information package on home heating.*

*The rising price of oil has prompted
many calls to our office from customers
who have questions about electric heat,
including whether or not to change their
oil heating system to electric. Our aim
is to provide you with information to
help you make an informed decision
about the type of heating system that is
right for you.*

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Building a new home or adding a new room or extension?

If you are building a new home, electric baseboard offers the lowest combined start-up and operating costs of all heating systems on the market today. Electric baseboard is easy to install, offers room-by-room temperature control and eliminates costly zone extensions.

Replacing your oil furnace?

If your oil furnace is at the end of its useful life, and you want to maintain a hot air or hot water heating system, consider an electric furnace.

You can utilize existing ductwork and pipes by choosing an electric replacement such as an electric hot water radiation furnace or an electric forced-air furnace. An electric furnace also has the added advantage of little or no environmental risk.

Thinking about converting?

Our response continues to be that it does not pay to convert if your current system is not at the end of its useful life. The start-up costs associated with removing one heating system and installing another will generally cost you more.

Need more information?

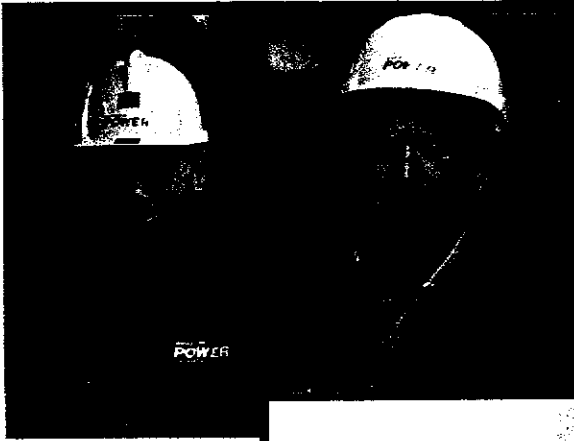
If you are planning a new home, or renovating your existing property, consider the value of electric heat. To receive an information kit on electric heating and energy efficient options, please contact our Customer Service Department.

Electric heat offers many choices and benefits ...

- ✓ Electric baseboard heating offers a low start-up cost and room-by-room temperature control.
- ✓ Electric hot water radiation offers a compact furnace with all the benefits of a hot water heating system.
- ✓ Air and ground source heat pumps offer low operating costs with the added bonus of air conditioning when you need it.
- ✓ An all-electric R2000 home offers a healthy, environmentally friendly choice in new home construction.
- ✓ Electric heat is 100 per cent efficient and easily meets the energy efficiency requirements of an R2000 certified home.
- ✓ Newfoundland Power offers financing to help purchase your electric heating system through convenient payments on your monthly electric bill.



Building A New Home



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HEATING YOUR HOME WITH ELECTRICITY IS ...

SAFE - No flames, fumes or combustible fuels and no chimney to worry about.

COMFORTABLE - Quality thermostats will maintain a consistent temperature.

CONTROLLABLE - An electric baseboard heating system allows you to maintain a different temperature in each room as well as heat ONLY the rooms you want.

ECONOMICAL - When building a new home, renovating, adding an extension or replacing your heating system, the initial costs for electric heat equipment and installation are much lower than other heating systems. Also, there are no annual maintenance fees and no replacement costs down the road.

QUIET - No noisy burner, blower motors or noisy pipes.

SPACE SAVING - With an electric heating system there is no need to give up valuable living and storage space for a furnace, ducts, tank, chimney or vent.

DEPENDABLE - With an electric heating system there is no waiting for fuel delivery.

MAINTENANCE FREE - There are no annual maintenance or service fees and no expensive replacements due to age or deterioration, such as those related to furnaces and fuel tanks.

ENVIRONMENTALLY SAFE - Electric heat means no possibility of fuel oil leaks and subsequent clean-up costs.

ENVIRONMENTALLY FRIENDLY - The majority of electricity produced on the island of Newfoundland is generated at hydroelectric developments and not through the burning of non-renewable fossil fuels that give off fumes and greenhouse gases during generation and at home.

FLEXIBLE - Electricity offers a number of choices for heating, including electric baseboard, convection heaters, in-floor hot water radiation, radiant heat ceiling panels, electric forced air furnaces, electric hot water radiation furnaces and air and ground source heat pumps.

COST EFFECTIVE - When you consider initial and operating costs, electric heating systems are very cost effective.

STABLE PRICING - Electric rates are stable over time and not subject to frequent changes or large fluctuations.



ELECTRIC HEAT OPTIONS

There are many forms of electric heat and many ways to design an electric heating system to suit your budget and lifestyle.

Electric Baseboards - Popular for Many Reasons

Electric baseboard is the most popular heating system in the province of Newfoundland and Labrador. It is simple and inexpensive to install. It is safe, comfortable, convenient and clean. Individual thermostats give you temperature control in each room and small baseboard heaters mean that you don't lose living space to a furnace or duct work.

When you consider initial costs, plus annual maintenance and energy costs, electric baseboard is the least expensive system to install and maintain!

Wall Convection Heaters - Warm Air Where You Want It

Wall heaters come in a variety of shapes and sizes and can be mounted on a wall or recessed. These versatile heaters are designed to heat up a room by creating air movement. Air is drawn over the heating element and warmed air is directed out into the room. High performance or electronic thermostats located on the heater or a nearby wall controls room temperature. These space saving heaters can go anywhere - in walls, in the floor, under kitchen cabinets or the bathroom vanity.

Electric Radiant Heat - Warm Floors and Comfort

Electric radiant heating is out of sight - literally! Panels are installed in the floor or ceiling allowing you to arrange your furniture without worrying about registers or baseboards. Radiant heat provides an even, comfortable heat, making cold tile floors warm to bare feet.

Electric Hot Water Radiation - Comfort

Some people like "hot water heat". The electric hot water radiation system is similar to other hot water radiation systems except the electric furnace is only the size of a suitcase. As a result, you don't lose valuable home space to a furnace. Electric hot water radiation provides great comfort without the worry of a fuel tank or flame in your home, and it doesn't require a chimney or flue.

Electric Hot Air Furnace - Environmentally Friendly

An electric hot air furnace gives you that forced air feeling without the worry or cost of a fuel tank or chimney. An electric furnace can provide varying levels of heat and has multiple heating units so that if one fails, you will still have heat. An electric furnace is cost effective, reliable, safe and environmentally friendly.

Heat Pumps - Comfort and Efficiency

Consider a heat pump if you are looking for the ultimate in comfort and efficiency. Heat pumps cost more to install but are 200 to 300 per cent efficient which means lower heating bills - up to 65 per cent less than conventional electric baseboard heating. This warm air system provides great comfort with even heating in the winter and air conditioning on those occasions when you need it.



HOW TO CALCULATE HEATING COSTS FOR YOUR NEW HOME

When building a new home, there are many factors to consider including which heating system suits your heating needs and budget. A comparison of the initial and annual operating costs of various heating systems will help you make an informed decision. When speaking with your home heating professional, consider the following:

Initial Costs	Electric	Oil
Electrical Service (100 or 200 amp)	_____	_____
Heating System Cost	_____	_____
Installation Cost	_____	_____
Other Costs (chimney, oil tank, block for furnace)	_____	_____
Total Initial Cost	██████████	██████████

Operating Costs		
Annual Heating Cost	_____ *	_____
Annual Service/Maintenance Fee	_____	_____
Total Operating Cost	██████████	██████████

*Many variables will determine how much it will cost to heat your home including insulation levels, ventilation system efficiencies, windows, indoor temperature and lifestyle. However, to calculate an estimate of the annual electric heating cost you can expect for your new home, use the following formula:

Multiply the square footage of the home (include all floors) by \$0.70 per ft².

Example: A 2,400 square foot bungalow fully heated, with 1,200 square feet on the main floor and 1,200 square feet in the basement. Annual Heating Cost = 2,400 x 0.70 = \$1,680

Calculation assumes a conventional building standard that includes R32 in the attic, R20 in main floor walls, basement walls insulated with R12 above and below ground, an indoor temperature of 72 degrees Fahrenheit and electricity cost at 6.77 cents per kWh (HST not included). Heating costs will be less for a R-2000 home or for a more efficient heating system such as a heat pump.

ELECTRICAL SYSTEM FINANCING

Up to \$10,000 of financing is available through Newfoundland Power for the purchase and installation of:

- **Electric home heating systems** - including baseboard heaters, wall mounted heaters, panel convector heaters, electric forced air furnaces, electric hot water radiation systems and heat pumps.
- **Wiring and associated material** - including the addition of general use outlets, heavy appliance outlets and ground fault interrupters, high performance thermostats, and wiring for heating, appliances and lighting.
- **Electric service upgrades for new and existing homes** - including amperage upgrades, voltage upgrades and relocation of panel and meter.
- **R-2000 upgrades** - finance the cost difference between a conventionally constructed home built to the National Building Code Standard and the same house built as a registered R-2000 home.
- **Heat recovery ventilation systems**
- **Electric fireplaces (including mantle)**

Who qualifies for financing?

Home heating and electrical services loans are available to residential customers of Newfoundland Power who have an active account and own the premises for which the loan is required. Financing is subject to credit approval.

How are payments made?

Payments are made with your monthly electric bill. You can pay for your purchase with a repayment schedule for up to 60 months.

Other Details

- Materials must be permanently installed and Canadian Standards Association (CSA) approved.
- Electrical equipment must be installed by a certified electrician and application must be accompanied by official receipts and a copy of the Certificate of Electrical Inspection. Heat recovery ventilation systems must be installed by an installer registered with the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI). The borrower must ensure that installations meet all municipal, provincial and/or federal regulations, by-laws or codes.



Build an Energy Efficient Home

One of the smartest things you can do when building a new house is to make it as energy efficient as possible. That means insulating your attic to at least R32, above ground walls to R20 and below ground walls to R12.

Insulate the Basement Right Away

The time to insulate the basement is NOW! When the basement is not insulated, heat flows through the main floor to the unheated basement, causing cold floors, drafts and increased energy costs. If insulating your basement is in your plans, and your main heating source is electric, call us about our insulation rebate program.

Install a Proper Vapor Barrier

A vapor barrier is critical in new homes. It will help lock out cold winter drafts and, more importantly, will keep warm moist air from getting into the walls of your house. The vapor barrier will help protect the wooden structure of your home. Remember to seal around electrical fixtures, outlets and vents.

Install a Heat Recovery Ventilator

A heat recovery ventilator will provide your home with a supply of fresh outside air while it controls humidity. This system will recover heat from outgoing air and is an important part of an energy efficient home.

Install Energy Efficient Windows and Doors

There are many types of energy efficient windows and doors on the market today. Ask your window supplier about the effective insulation value of windows, including the window area and frame. Windows and doors should also be weather-stripped and caulked to lock out cold drafts and keep the heat in.

The Best in Energy Efficiency

The most energy efficient home standard in the world today is R-2000. These homes are built to strict energy standards by certified builders and provide premium comfort and indoor air quality. You can finance the cost difference between a conventionally constructed home and a R-2000 home through Newfoundland Power.



Comfort and Quality

R-2000 is a standard of construction that guarantees the homeowner comfort, quality and low energy costs. R-2000 homes cost about 2 per cent to 5 per cent more to build, but offer comfort and efficiency that is hard to match. Cold drafts are eliminated and even neighborhood noise is reduced.

Certified Builders and Quality

R-2000 homebuilders are specially trained to construct energy efficient homes. The benefits are comfort, quality and low operating costs. An R-2000 home is tested after construction for air tightness standards that will ensure an energy efficient, draft free home. An R-2000 house is also quieter than regular houses and less neighborhood noise gets through the walls. Home comfort has never been so good!

The Best in Air Quality

A heat recovery ventilation system used in an R-2000 home provides fresh air to each room in the house. It provides economical operation because it recovers heat from outgoing air.

The Most Energy Efficient House Available

R-2000 is the most energy efficient housing standard available. That means you will pay less to heat your home. An R-2000 house is also environmentally friendly because it uses less energy.

Highest Standard Available

Certified construction, excellent ventilation and attention to detail. These are all qualities you will find in an R-2000 home. R-2000 represents the best homes being built today.

Talk to an R-2000 Certified Builder

Any home can be built to R-2000 standards. If you have a house plan already selected, an R-2000 builder can provide a quote based on R-2000 standards. Only R-2000 qualified builders can build your R-2000 home and provide a certificate guaranteeing this standard.

R-2000 and Electric Heat

Electric heat is 100 per cent efficient and easily meets the energy efficiency requirements for an R-2000 certified home.

For more information about R-2000 or to locate a certified R-2000 builder in your area, contact the Newfoundland and Labrador Home Builders Association at 753-2000 or toll free at 1-800-265-2800.

Finance Your R-2000 Upgrade Through Newfoundland Power

Newfoundland Power's R-2000 Financing Program offers up to \$10,000 to finance the cost difference between a conventionally constructed home built to the National Building Code Standard and the same house built as a registered R-2000 home.



Your electrical service and panelboard should be sized to handle your immediate and future electrical needs. That is why we advise that you install a larger electrical panelboard than required to allow you to safely add new circuits.

For an electrically heated, average size, single family home we suggest a 200 ampere service. A larger home may require a 400 ampere service.

For a two family home, we suggest a 125 ampere service for the main living area and a 100 ampere service for the apartment or secondary living area. Your electrical contractor can properly size your electrical service to meet your needs.

Electricity is dangerous and must be respected. Always have electrical work carried out by a qualified electrician.



Obtaining your new Electrical Service

Your electrician or contractor is responsible to obtain appropriate permits and inspections from the local authority. Newfoundland Power will schedule your electrical connection when the inspection authorization is received provided your electrical account is set up and all line and pole work is complete.

There are some things you can do to ensure you receive your new electrical service when you need it.

- ✓ Apply for a "Permit to Build" from your local city or municipal council.
- ✓ The inspection/authorization must be completed and received by Newfoundland Power at least three days prior to your desired service connection date.
- ✓ Call our Customer Service Call Centre to set-up your Newfoundland Power account. Once your account is set-up, one of our representatives can visit your site to identify the location of your new electrical service.
- ✓ Display your lot number in a front window.
- ✓ Consider whether you would prefer to have an underground service wire or an overhead service wire. While overhead service wires are most common, underground service wires are increasing in popularity. They generally offer improved aesthetics and greater flexibility with respect to tree locations and property use.
- ✓ Plan to have your electric meter located on the front or side of your house to provide unobstructed access for our meter reading staff and line crews.
- ✓ Trim all trees along the proposed path from the pole to the meter.

HEATING DESIGNS

Whether you're planning to build a new home or renovate an existing home, the decisions you make today will determine your home's energy efficiency for years to come.

Your home's heating system must be able to maintain comfortable temperatures, provide even heat and be accurately controlled to operate at maximum efficiency. Therefore, an accurate heating design is important. A heating design is the basis for comfort, efficiency and reliability. It is important in the selection, sizing and location of heating equipment. Electrical or general contractors can help you with this.

Why a Heating Design is a Good Idea

An oversized heating system will result in heat being distributed inadequately and room temperatures to rise and fall uncomfortably. If the system is too large, installation costs will also be higher than necessary. On the other hand, an undersized heating system will not function efficiently and your rooms may be uncomfortably cold. These are just a few of the reasons why a professional heating design is a good idea.

A heating design will:

- Calculate the heating needs of your home and determine the proper size of an electric heating system to comfortably heat each room in your home.
- Indicate the proper placement of electric heating equipment and thermostats.
- Estimate annual energy use and operating costs.
- Recommend insulation levels in accordance with energy efficiency standards.



BETTER THERMOSTATS FOR IMPROVED CONTROL

Thermostats are a very important part of your heating system. These devices are designed to respond to changes in room temperature and signal the heaters on and off, thus maintaining a consistent and comfortable temperature in your home. The effectiveness of your heating system is only as good as the thermostats you use!

To obtain the maximum in comfort, convenience and economy from your heating system, install only electronic, low voltage or high performance wall-mounted thermostats. Thermostats mounted in the heater are generally not accurate and will not maintain reasonable comfort. They should only be used if the installation of a wall mounted thermostat is not possible or if the thermostat built into the heater is electronic. Remember poor quality or malfunctioning thermostats will reduce the performance of even the best heating system.

Many homes have poor quality thermostats and as a result, room temperatures may vary up to 10 degrees Celsius or 50 degrees Fahrenheit from the thermostat setting. Upgrading thermostats is a small investment to increase the comfort of your home.

High Performance Thermostats

- Provide accurate temperature control within 1 degree Celsius.
- Are affordable.
- Provide comfortable, even room temperature.
- Easily replace existing wall mounted units.
- Offer programmable models for added convenience.

Cash Back from Newfoundland Power

Save \$4 off the purchase price of a high performance thermostat at your nearest participating dealer.

Eligible Models

LINE VOLTAGE

Aube TH101, TH102, TH103 & TH104

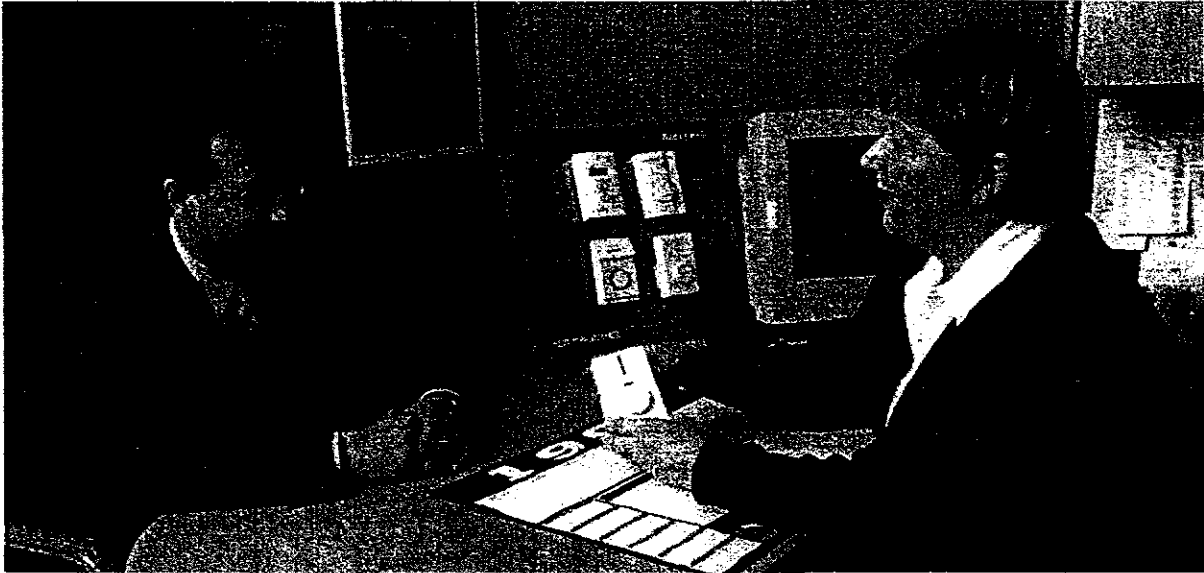
Honeywell T4398, T4600, T4800

Ouelett OTE11, OTE4

LOW-VOLTAGE

Aube TH123

Honeywell T86, T8132, T8700



VENTILATION SYSTEMS

Proper ventilation is critical for your new home. A good ventilation system will supply your home with fresh air while controlling humidity. A home's ventilation system normally has a central ventilator and exhaust fans in the kitchen and bath areas.

Heat Recovery Ventilators Offer Energy Savings

The best ventilation system for a new home is a heat recovery ventilator (HRV). An HRV recovers heat from outgoing air and uses it to heat incoming air. These units recover 60 per cent to 70 per cent of the heat from the outgoing air resulting in tremendous energy savings.

Installation is Critical

Proper installation of your ventilation system is critical to providing a good supply of fresh air throughout your house. The system should be balanced so that the same amount of air enters and exits the house. The best location for room air inlets is about 10 inches from the ceiling. Duct work should not pass through cold spaces such as the attic. However, if it does, it should be insulated to R32. Rigid duct provides better air flow so a minimum amount of flexible duct work should be used.

The HRV should be easily accessible, ideally in the basement. Filters need to be changed and the core cleaned regularly. The drain hose extending from the unit should lead to a house drain.

Choose a Certified Installer

Look for a certified installer who has completed training offered by the Heating Refrigerating and Air Conditioning Institute of Canada (HRAI) to ensure that your ventilation system is properly installed and balanced.

Control Humidity with a Dehumidistat

To control humidity, the HRV should be equipped with a dehumidistat. A dehumidistat determines the ventilation rate based on the level of humidity in the house.

Exhaust Fans

When purchasing exhaust fans, keep noise and capacity in mind. You will likely pay more for a quiet fan, but it will be easier to live with. Make sure any fan you buy is powerful enough to extract moisture from the intended room.



ELECTRIC WATER HEATER FINANCING PROGRAM

Heating water electrically is very economical. On average, the electric water heating cost for a typical family of four is less than \$1.00 per day.

The following table will give you an idea of the typical monthly energy use and costs associated with electric water heating for various size families:

Family Size	Monthly kWh	Monthly Cost
2	325	\$22.00
3	390	\$27.00
4	450	\$31.00
5	510	\$35.00
6	575	\$40.00

(calculations are based on approximately 7 cents per kWh)

Electric water heaters do not require an external fuel tank, chimney or venting system and there is no flame or fumes. They are safer and more environmentally friendly than other common types of water heaters.

Who is eligible?

To qualify for financing, you must be the registered owner of the property in which the water heater is to be installed and have an active Newfoundland Power account.

How does the program work?

Contact your local plumber or plumbing building supply dealer directly. Have your Newfoundland Power account number available as the supplier will require it when they call us to request credit approval for the financing.

Once financing is approved, you will be asked to sign a loan agreement. This agreement will be forwarded to Newfoundland Power when the purchase or installation is completed. The monthly finance amount is then added to your Newfoundland Power electric service bill.

How much can I finance?

Financing limits for the combined purchase and installation costs are:

- \$375 for 30 and 40 gallon electric water heaters;
- \$450 for 60 gallon electric water heaters; and
- \$1,200 for long-life electric water heaters with a minimum 15 year manufacturers warranty.

All financing is subject to credit approval.

What will my payment be?

Your payment will be based on the amount of your purchase and the interest rate at the time of purchase.

For example, if you finance \$230 for 36 months at an interest rate of 7 per cent, a payment of \$7.08 per month will be required. Most water heaters can be financed over a 12 to 36 month period. Your monthly payment will be added to your electric service bill for your convenience.

WATER HEATING TIPS

Hot water is a convenience we often take for granted until we run out. The following advice will help you get the most value and comfort for your water heating dollar.

Choose the Right Size Water Heater

The size of your water heater will depend on your family's hot water use. Generally, a 40 gallon tank is recommended for a family of four. Larger households or family lifestyles requiring a lot of hot water will require a 60 gallon tank.

Choose an Energy Efficient Water Heater

Your water heating costs can be reduced as much as \$25 per year with an energy efficient water heater. An energy efficient model has extra insulation around the tank's core keeping more heat inside the tank. Newfoundland Power's Water Heater Financing Program offers low monthly payments for up to three years for the purchase and installation of an electric water heater.

Choose the Right Location

Locating your water heater as close as possible to bathrooms and kitchens will save you money. The shorter the distance from the point of use the less hot water you will use as there is less water standing in the distribution line.

More Tips for Lowering Water Heating Costs

- Be energy conscious! Buy a low flow showerhead. For maximum energy savings, choose one that uses less than 2.5 gallons of water per minute.
- Insulate hot water pipes.
- If your tank is located in an unheated basement, install a water heater insulation blanket.
- Lower the temperature setting on your water heater to 130 degrees Fahrenheit or 55 degrees Celsius. For health reasons, never set below 125 degrees Celsius.
- If you have a dishwasher, set the water temperature to 60 degrees Celsius or 140 degrees Fahrenheit.

Appliances - Compare Energuide Labels

Today's appliances are more efficient than ever. Most appliances come with an Energuide label that shows how much energy the appliance will use. Once you decide on the features you want, compare appliances. Two refrigerators with the same features may have different Energuide ratings. The one with the lower rating will cost less to operate.

Lighting Options

There are more lighting choices than ever. Perhaps the best advice for a new home builder is to visit several lighting specialty stores and talk to the sales people. Ask about fluorescent lighting, compact fluorescent options and dimmer switches for lighting efficiency. For added comfort you may want to consider a heat lamp in the bathroom. And don't forget about outdoor lighting! Motion sensor flood lights can provide an added feeling of security as well as enhance your home's exterior appearance.



Location of Lighting Fixtures

Besides the normal locations for lighting fixtures you may want to consider the following:

- A light in the attic or crawl space.
- Receptacles along the eaves for Christmas lights.
- Three-way switches in hallways and stairways for safety and convenience.

Consider the following for safety and convenience:

- A receptacle at the front and back of the house for using outdoor electrical tools.
- Switches near exterior doors to control outside receptacles.
- Receptacle within 2 to 3 feet of central vacuum connections for the power nozzle.
- Indoor receptacles, such as living room lamps, operated by a switch.
- Use Ground Fault Circuit Interrupters (GFCI) in all washrooms or where a receptacle is within 3 meters of water use and for outside receptacles.
- Install a receptacle for your computer.

PAYMENT OPTIONS

Newfoundland Power has convenient payment options to help you save time and money!

Automatic bill payment... every month

With our Pre-authorized Payment Plan, your electrical bill is automatically deducted from your bank account each month. It's easy, convenient and worry-free, especially if you're away from home.

Choose our Equal Payment Plan and pay the same amount each month. Call our Customer Service Representatives at (709) 737-2802, 1-800-663-2802 or visit us online at www.newfoundlandpower.com for more details or to join.

Easy Access...

24 hours a day, 7 days a week

TELEPHONE BANKING

Telephone banking offers maximum flexibility. Pay your electrical bill by telephone when it's convenient for you. Call your financial institution to make arrangements to set up this option.

INTERNET BANKING

Pay your bills any time of the day or night. If you have Internet access, a phone call to your bank is all it takes to set up electronic banking.

AUTOMATED BANKING MACHINES

Most financial institutions offer quick and easy bill payment options through automated banking machines.

In Person

Drop into any of our area offices to pay by cash, cheque or Interac. Remember to bring your electric bill for faster service. Payments can also be made at most financial institutions.

Drop-off Boxes

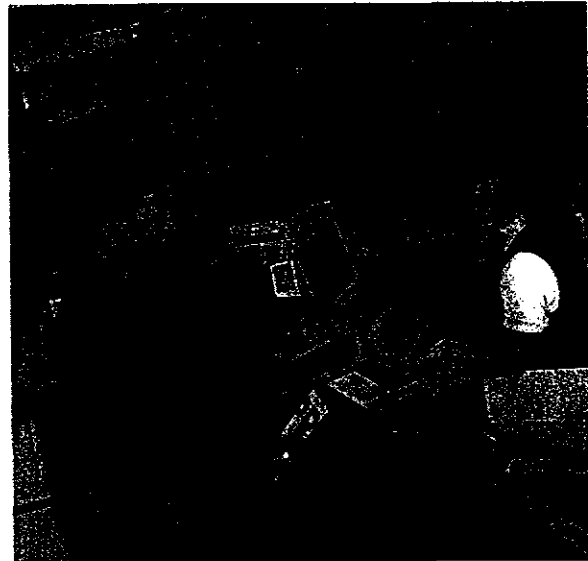
In a rush? Just drop your payment into our "Timesaver" drop-off box along with the top portion of your bill. Drop boxes are available at most of our area offices.

Mail

Payments by cheque or money order can be sent to:

Newfoundland Power Inc.
P.O. Box 12069
St. John's, NF A1B 4B6

Save money . . . receive an Early Payment Discount when you pay your electric billing within 10 days of the bill date.



There are many organizations that can help you make your home a reality.

Newfoundland and Labrador Home Builders Association

Members of the Newfoundland and Labrador Home Builders Association can assist you in making decisions about building a new home, renovating your existing home, completing your basement or just adding a room. They can also assist you with decisions about the type of heating systems that can be installed in your new home and what options are available if you are making heating decisions as part of your renovations and additions.

The Newfoundland and Labrador Home Builders Association administers the R-2000 Home Program in our province. R-2000 homes are built to the highest standard of indoor air quality and energy efficiency available anywhere in the world today. For more information call 753-2000 or 1-800-265-2800 or visit www.builders.nf.ca.

Canada Mortgage and Housing (CMHC)

CMHC, Canada's Housing Agency, has the most comprehensive source of reliable housing information in Canada. Whether you are thinking about buying your first home, or planning to renovate your current home, CMHC has a variety of housing products and services available to help you with your housing needs. Ask about the 5 per cent down payment plan for new homeowners.

CMHC also has a variety of free brochures available such as *How to Hire a Contractor*, *Making your Home Accessible to Disabled People and Healthy Housing*. For further information, call 772-4400 or 1-800-668-CMHC or visit www.cmhc-schl.gc.ca.

Atlantic Home Warranty Program

Consider a home warranty for your new home. Be sure to find out if the construction company building your home is a member of the Atlantic Home Warranty Program. For more information, call 1-800-320-9880.

Electrical Inspection

When you are ready to have your electrical service connected, have your electrical or building contractor contact the local electrical inspector in your area to request an electrical inspection. Newfoundland Power requires a copy of the inspection certificate before your service can be connected.

Conservation Corps, Newfoundland and Labrador

Conservation Corps EcoTeams can help you 'Green Up' your home for comfort and savings. The Conservation Corps offers two types of home assessments:

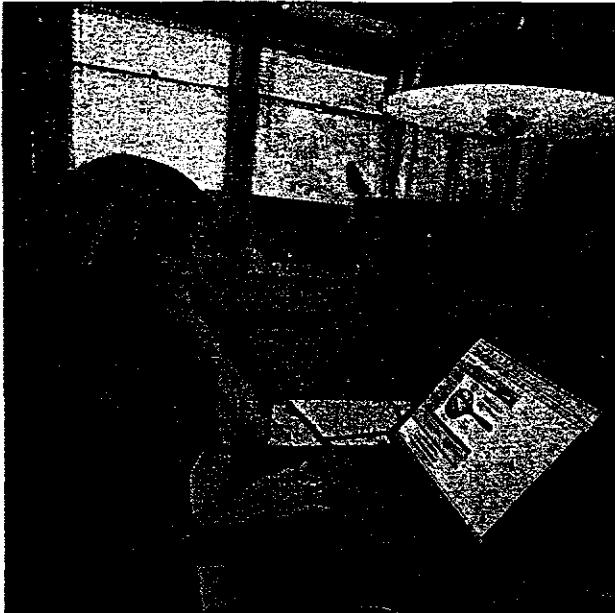
- The *Home Green Up* is a comprehensive assessment that will help the homeowner or tenant reduce water and energy use, improve recycling/composting and waste reduction and improve car efficiency.
- The *EnerGuide Evaluation* assesses the total energy performance of a dwelling. The homeowner receives a customized Home Energy Plan to help prioritize home improvements in terms of benefits and payback through long-term energy savings.

To arrange a home visit, call the Conservation Corps EcoTeam nearest you at 729-7279 or visit www.conservationcorps.nf.ca/ecoteams.

CHECKLIST FOR NEW HOME BUILDERS

- ✓ Before construction, visit us on line to set up your new service account and request a service location.
- ✓ Call the Home Builders Association about building an R-2000 home or advice on new home construction or renovating. For further information call 753-2000 or 1-800-265-2800.
- ✓ Call CMHC for free brochures on "How to Hire a Contractor" and "Healthy Housing" at (709) 772-4400.
- ✓ Call the Atlantic Home Warranty Program about the home warranty program for new homeowners at 1-800-320-9880.
- ✓ Call Newfoundland Power about rebates on basement insulation for new home construction.
- ✓ Insulate ceilings to R32 or R40, above ground walls to R20 and below ground walls to R12.
- ✓ Ensure vapor barrier is continuous and sealed.
- ✓ Ensure all joins are sealed with caulking.
- ✓ Ensure electrical plugs and light fixtures are sealed air-tight.
- ✓ Get quotes on your ventilation system from certified installers.
- ✓ Place fresh air registers high on the wall and avoid duct work in the attic or other unheated spaces.
- ✓ Make sure the electric water heater is as close as possible to the main uses of hot water.
- ✓ Purchase an energy efficient water heater. Contact Newfoundland Power to learn more about our Electric Water Heater Financing Plan.
- ✓ Purchase low flow showerheads with a rating of 2.5 gallons per minute or less.
- ✓ Visit a lighting showroom for advice on energy efficient lighting for inside and outside your home.
- ✓ Visit a window showroom for advice on energy efficient windows.
- ✓ Choose receptacle type or breaker type Ground Fault Circuit Interrupters (GFCI).
- ✓ Consider specialty electric safety options such as heating coils on the eaves of your home to prevent snow building up over walking areas in walkways or driveways to reduce icy conditions.
- ✓ Consider specialty electric comfort options such as radiant heat in floors or ceilings.
- ✓ Consider pre-wiring for other options such as an intercom system, a security system, extra telephones or cable circuits. You may want to install these items later and pre-wiring will save on installation costs.
- ✓ Visit Newfoundland Power to join the Equal Payment and Pre-authorized Payment Plans.

Website



Our convenient on-line services allow you to do business with us when it's convenient for you.

Now you can open or close your electrical account and submit your final meter reading through the Internet. This on-line service is available 24-hours a day and provides easy to follow instructions on how to record and submit your final meter reading using our on-line interactive meter.

You can also change your account information, join our convenient payment plans or learn how to get the most out of your energy dollar.

@your service!

visit www.newfoundlandpower.com

for convenient on-line service options 24-hours a day!

Open or close an account!

Submit your own meter reading!

Join our convenient payment plans!

Change your account information!

Learn how to get more out of your energy dollar!

CONTACT US

Visit us at www.newfoundlandpower.com.

To access your account balance and last payment information with our automated telephone system, or to contact our Customer Account Representatives from 8:00 a.m. to 8:00 p.m. Monday to Friday, please call:

737-2802 or 1-800-663-2802

To obtain power outage information or to report outages, downed wires or poles, please call:

1-800-474-5711



Telephone 737-2802 or 1-800-663-2802
E-mail at icsmail@newfoundlandpower.com
Online: www.newfoundlandpower.com