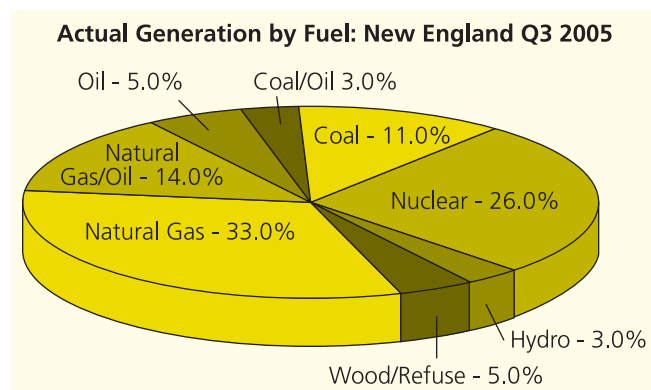


## Your electric bill: What does gas have to do with it?

*Many Groton residents have asked us how rising natural gas prices can push up electric bills. To explain the connection between gas and electricity prices, we need to discuss how power is produced and sold in New England.*

**E**lectricity is produced at power plants where mechanical generators spin large quantities of copper wire inside large magnets at high speeds, which produces an electric current. To run, these generators require an energy source such as oil, natural gas, coal, nuclear, wind, water, or other alternatives.



Power plants throughout New England use a variety of energy sources to operate their generators. Although different in size and design, these plants have two things in common: they all produce alternating current, and they all use some type of fuel or alternative energy to do it.

The cost of the energy used to run the generators is, therefore, a key factor in the cost of electricity. The price of natural gas has the most effect because it is the most commonly used fuel in our area – over 40% of the generators in New England are powered by gas. At these gas turbine power plants natural gas is burned to create hot gases that spin a turbine equipped to produce electricity.

Because fuel prices can be volatile and market conditions unpredictable, Groton Electric Light has a goal of diversifying our generation sources to pass along the best possible price to our customers. This goal is getting harder and harder to meet as all of the new generation facilities being built in New England are fueled by natural gas.

Over the last five years in New England, the increase in generating capacity has been almost entirely natural gas-fired capacity. Generating units burning primarily natural gas, or capable of burning natural gas and oil constitute approximately 51% of electric generating capacity in the region.

### Market forces influence power costs

For most electricity generators, the cost of fuel is the largest production-cost variable, and as fuel costs increase, there is a corresponding increase in the prices at which generators submit offers into the wholesale market. Under the new deregulated system, generators place hourly price offers to supply electricity to the New England grid. The grid operator accepts these offers by starting with the lowest price and moving higher as necessary to meet electricity demand. The last unit needed to meet the demand sets the price that it and all of the other generators will be paid for that hour. The natural gas units set the market price 85% of the time, which is why natural gas prices have such a significant impact on electricity prices. The only times when natural gas generators are not setting the price in New England is during the night hours when the demand is low enough that none of them are running.

The preferred choice of generators to build natural gas units over the last five years has made our goal of power supply diversification, as a buffer against volatility, difficult to maintain.

**\$1.00 OFF**

**Energy-Efficient  
Light Bulbs**

Bring this coupon to the Groton Electric Light Department office at 23 Station Ave. by April 7, 2006 to get \$1.00 off the cost of each energy-efficient compact fluorescent light bulb. Maximum of three bulbs per customer of the Groton Electric Light Department.

**NEW TECHNOLOGY**

**AMR is on the way**

*Last month, the Board of Light Commissioners accepted the manager's recommendation to install a two-way AMR network. ArKion was chosen from among eight bidders. In ArKion's favor was lower cost, responsiveness and customization. The new system will lower our operating costs, increase our efficiency, improve service, and allow us to create a range of new money-saving programs for our customers.*

The Automatic Meter Reading (AMR) system, which will allow two-way communication between Groton Electric and each individual electric meter, will reduce labor and vehicle costs and increase efficiency by freeing workers for other tasks. In addition, the system will improve our outage response time by providing us with live status reports. Our linemen are looking forward to using this new tool to minimize the duration of interruptions by helping to pinpoint the location of the outage.

AMR will also allow us to offer programs to help everyone save money. Because wholesale electric costs vary each hour, incentives for customers to shift their electric use to times when electricity is less expensive helps to lower our cost to purchase power.

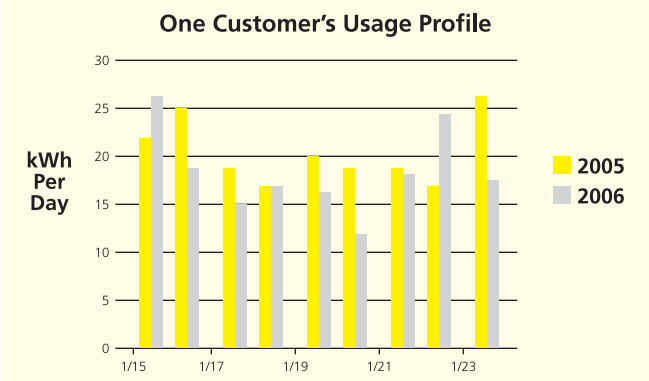
For example, the lowest price for electricity typically occurs between midnight and 5 a.m. The highest prices are typically between 6 and 9 p.m. in the cooler months and between noon and 10 p.m. in the warmer months. The average wholesale price for electricity in the evening is twice the price of the early morning hours.

**Everyone can help lower power costs**

Since most of Groton's electric use is residential, it takes place during the most expensive evening hours. The more that customers run their dishwashers, washing machines, dryers and other appliances after 9 p.m. in the fall and winter and 10 p.m. in the spring and summer, the lower our wholesale power costs. With this new system, we will have the foundation to set up time-of-use rates, which will provide incentive for some customers to shift their time of use.

The new system would enable us to ask customers to use less electricity during certain specific times, such as when the wholesale price rises above our rates. This would save money for the whole community. If 500 homes in Groton modified their thermostats by just two degrees during extremely hot or cold weather, we could significantly cut our wholesale power costs.

Another nice feature of this system is that it gives us the ability to record usage data for each customer to help you track your energy use on a daily basis. We plan to make this information available on our website. Through a password-protected page, you will be able to see your daily, monthly, or yearly load (usage) profile.



Many of our residential customers regularly use more electricity on the weekends.

**New solid state meters coming**

This meter reading/communication system requires that every meter socket in town receive a new, solid state meter installed by the Light Department. It will take several months to switch over the meters, which will result in a momentary service interruption as the meters are swapped. Our ambitious plan is to have all 4,400 meters replaced before the snow falls.

We are excited about the customer service possibilities this state-of-the-art technology will support and want the transitions to be as comfortable for everyone as possible. Please feel free to let us know if you have any questions or concerns.