Electricity Guide

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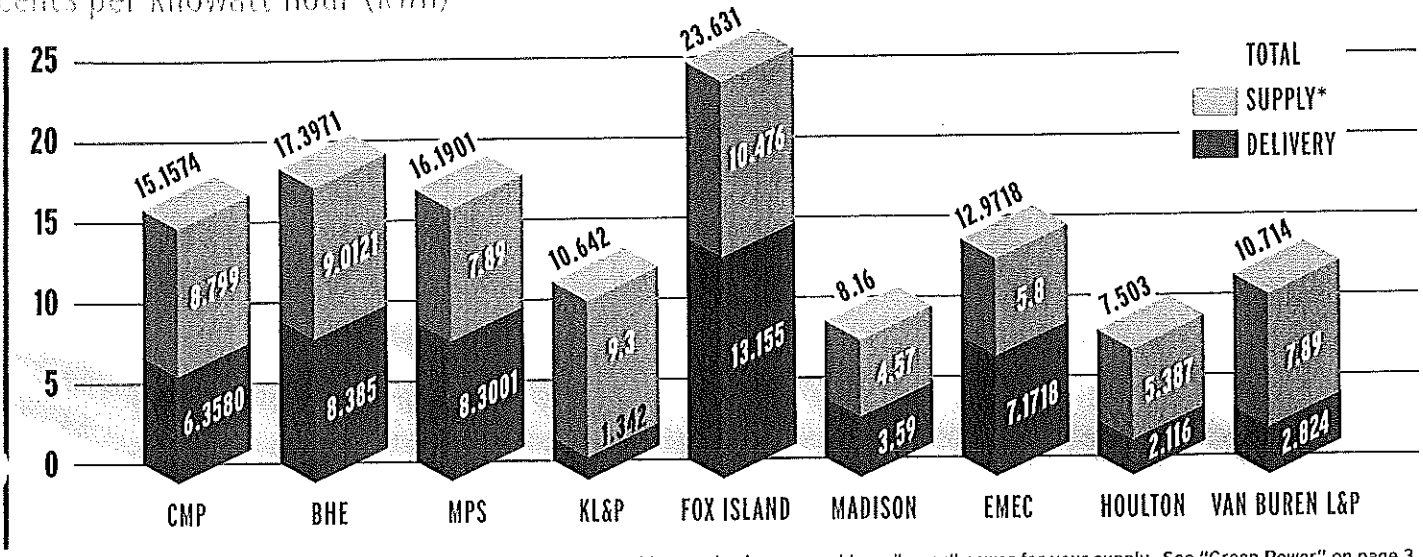
CURRENT RESIDENTIAL ELECTRIC RATES

cents per kilowatt hour (kWh)



*These are standard offer rates. You may want to consider purchasing renewable or "green" power for your supply. See "Green Power" on page 3.

RESTRUCTURING—A MISTAKE?

There has been continued discussion in the last year or two about electric restructuring and whether it should have happened. This increased focus coincides with the large price increases in the supply markets which in turn reflect the increased natural gas and oil prices on the world markets caused by unrest in the Middle East and the damaging hurricanes of 2005. The question surfaced before the Utilities and Energy Committee of the Maine Legislature in the form of bills that would have allowed Maine's utilities to once again own and control generation.

The question is very hard to answer because to do so, you need to know what current rates would have been if we had never restructured. One could say that Maine has fared better than any other state that deregulated supply. Using numbers compiled by the Department of Energy, total residential rates in Maine are now closer to the national average than they were in 2000, when the change occurred (although we still pay more than the national average). While this is due in part to the reductions in both CMP's and Bangor Hydro's delivery rates, the competitive nature of the PUC's standard offer auction process also deserves credit.

On the wholesale side, the biggest problem is the structure of ISO-New England market. Unlike pre-restructuring pricing where the regulator set the non-fuel price of individual generators based on a review of costs, the Federal Energy Regulatory Commission (FERC) approved an hourly market that uses "marginal pricing" where all generators receive the price of the most expensive generator to run in any given hour. This appeared to be a good idea for New England in

CONT'D ON PAGE 2

COMPLAINING CONT'D

1997, where there was little generation fired by natural gas. But with the construction of two new gas pipelines from Canada through Maine to southern New England in the subsequent years, the market price is now set by generators that use a fuel — natural gas — whose price is very volatile. Under traditional regulation, on the other hand, customers were not immune from such volatility since the price of fuel was always passed through directly to customers. As you can see, it is a very complicated business. We will continue to monitor and report on this debate.

RATE CASES

IN SEPARATE CASES UNDERWAY at the Public Utilities Commission, both CMP's and Bangor Hydro's distribution rates are under review. CMP is seeking no increase, but is looking for Commission approval to spend over $100 million in new investments. Almost $20 million is for a more aggressive tree-trimming program designed to reduce the number and frequency of power outages. CMP also proposes to spend over $90 million to provide new "smart" meters for every customer (see *Smart Meters*, opposite). Without these additional investments, there would be a rate decrease. BHE has proposed an 8.2% increase in its distribution rates. We have hired a total of six experts to review in detail the numbers behind these requests. The CMP case, which also contains a proposal for a new long term rate plan similar to the one it has had for the last seven years, is scheduled to be decided in 2008 while the BHE case should wrap up this fall.

WANT TO SAVE MONEY *AND* THE ENVIRONMENT THIS SUMMER?

ELECTRIC LAWN MOWER

LOCAL STORES OFFER DOZENS of brands and models of gasoline powered lawn mowers; occasionally there are one or two electric models on display. Presumably, the stores are selling what consumers want, so why aren't more consumers demanding electric models? We suspect that a fuller understanding of the advantages of electric lawn mowers would cause more people to want one.

COST A good corded electric mower can cost as little $200 – less than the vast majority of gas-powered models. A cordless electric model costs about the same as the average gas lawn mower.

COST OF FUEL Running a gas powered lawn mower for an hour may require up to a gallon of gas – about $3. Use a 12 amp corded electric lawn mower for an hour and you'll spend about 23 cents on electricity (at 16 cents per kWh).

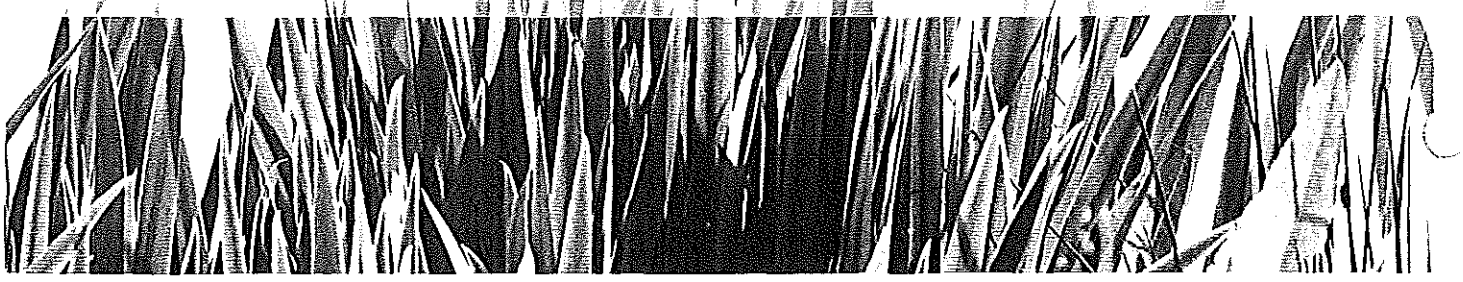
POLLUTION It is estimated that a typical gas lawn mower produces about 40 times as much air pollution as a modern automobile, that running a gas lawn mower for an hour produces as much pollution as running a 1992 automobile for over 100 miles, and that millions of gallons of gasoline are spilled into the ground by power equipment users each year. While electric mowers themselves emit no pollution, it is true that electric power plants do. However, even considering the potential need to increase electric generation, electric lawn mowers remain far greener than gas models. And if you feel the need to contribute zero to carbon emissions, if you need more exercise, or if you have a flat small lawn, consider an even more economical and greener choice – manual mowers use no fuel, create no pollution, and can cost as little as $100.

HEALTH Using an electric mower means you won't breathe fumes as you push, you won't smell like exhaust when you're done, and you won't get gasoline on your hands.

CONVENIENCE Corded electric lawn mowers never run out of fuel, they are lighter and therefore easier to maneuver, they start up instantly, they are quieter, and the blade is the only component that needs occasional maintenance. Cordless models have these benefits, and they avoid the hassle of the cord. They are, however, heavier, more expensive, and run-time is limited by the capacity of the rechargeable battery. Cord lengths are also a limitation but a typical corded model will allow for 100 feet or more of cord with the appropriate wir e gauge.

TIP: If you use a corded model, start with a corded cord on the ground near the electrical outlet – then mow in straight lines parallel to the wall or [illegible] outlet is located, gradually moving further from the outlet.

NOTE: [illegible] however the operations cost and environmental benefits of [illegible] are [illegible] powered models.



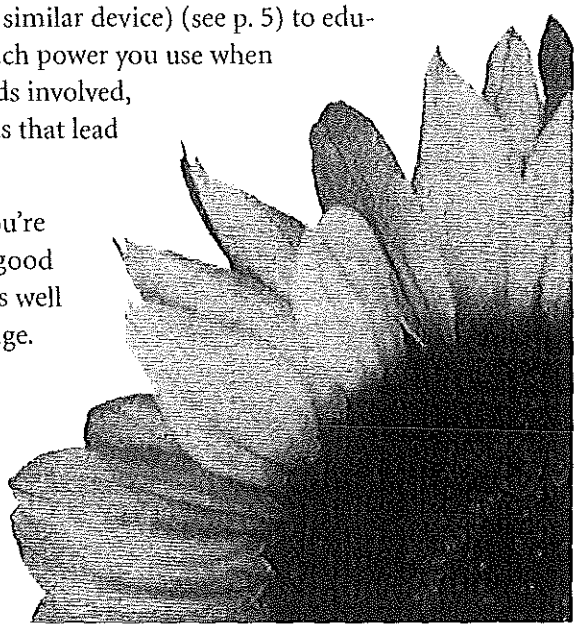
PHANTOM LOAD
Is **Off** Really **Off**?

What would you think if someone told you that between 5 and 10% of your monthly light bill came from devices you thought were off? Phantom loads, leaking electricity, standby losses are all terms used to describe the causes of this usage. It is consumed by a variety of appliances. Your cell phone charger draws power if it is plugged in, even if your cell phone is in your pocket. Your TV set, DVD player and almost anything with a remote control uses power in order to be ready to come "on." Walk around your house at night with the lights off and you're likely to see green and yellow dots of light here and there. Each appliance by itself consumes very little, but it adds up quickly. The Boston Globe recently reported (Sunday, June 10, 2007) that the phantom power used in New England in a single year could supply the electricity needs of Portland, Boston and Hartford for that same year!

Since these devices are always on, they contribute to the peak load on the peak usage days of the year. These are the hot summer days when the Governor is likely to appeal to customers to turn off all unnecessary appliances. Any reduction in electricity on days like this — whether it's phantom loads or not — can keep generators from pumping CO_2 into the atmosphere, and could help reduce the supply price portion of your bills since these are the days when the most expensive "peaker" plants are turned on to meet demand.

So what can you do? Try these relatively simple steps:

- Plug computers and other electronics into a multi-plug power strip (preferably with surge protection). These strips come with a switch that will allow you to turn off all power to all connected devices when they're not in actual use.
- Only plug your AC chargers in when you are actually charging your cell phone, iPod, electric razor, or game-boy. Otherwise, keep it unplugged.
- Use a Kill-a-Watt meter (or similar device) (see p. 5) to educate yourself about how much power you use when things are "off." Get your kids involved, perhaps with prizes for ideas that lead to lower bills.
- Unplug everything when you're away on vacation. This is a good practice for safety reasons as well as for bills and climate change.
- Shop for, and ask for, appliances that use less phantom power. Industry is beginning to wake up to this issue (see *Computer Power*, p. 5).

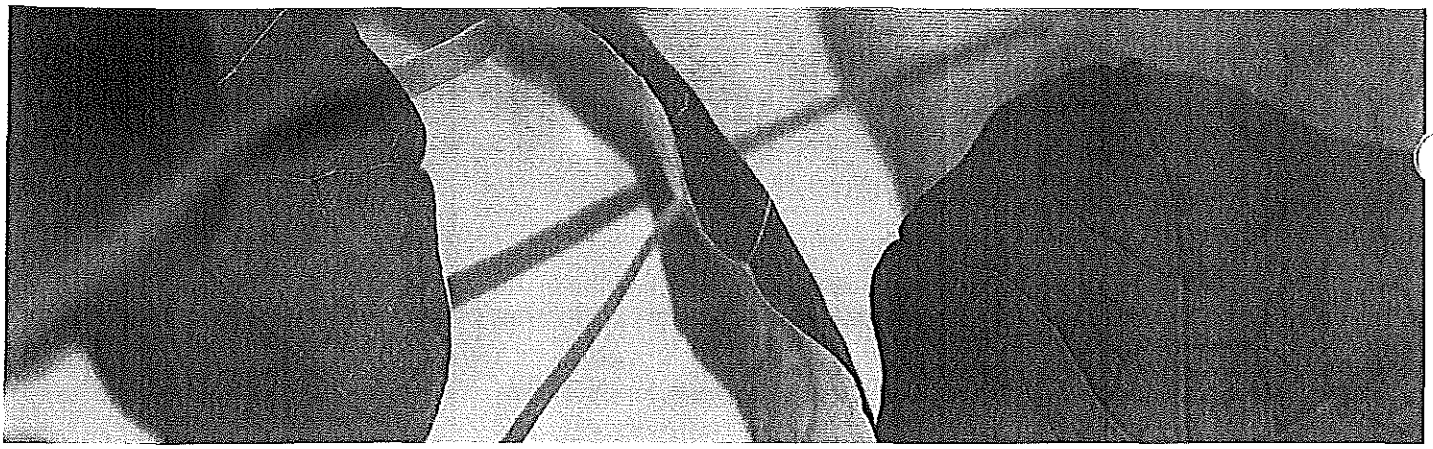


SMART METERS, AND EXPENSIVE!

CMP is proposing to roll out new "smart" meters for every customer in the next few years. It claims these meters will lead to better reliability, increased conservation, access to unspecified demand response opportunities and environmental benefits. All this comes with a $90 million price tag. We are examining this proposal with a skeptical eye, given the cost. At this time of extremely high rates, such an investment just may not make sense, regardless of the "smarts."

GREEN POWER

With all the talk about climate change and the need to reduce the amount of carbon going into the atmosphere, consider switching from the standard offer (which includes nuclear, natural gas, and oil) to buy "green" power. This is power generated using only renewable resources: wind, water, solar, etc. The following is a website that simplifies the search: http://www.mainegreenpower.org/menu/index.shtml. If you have no computer, or prefer to talk to a live person, call the Maine Green Power Connection at 207-729-9665. Fact: In the entire state, only about 3600 residential customers have decided to obtain supply from a source other than the standard offer. We suspect that most if not all of these customers have purchased a green power option.



10,000 CARBON-FREE HOMES

Are you ready to do your part in stopping global warming?

IN RECENT MONTHS a number of major international reports on global climate change have been issued, and the evidence has become overwhelming that global warming is real and is primarily a product of human action. Our use of carbon-based energy (oil, coal and natural gas) is putting carbon dioxide (CO_2) into our atmosphere at an increasing rate, and the CO_2 captures and holds heat within our atmosphere. The consequences of global warming are becoming clearer, and they threaten to change our lives, and our environment, in many ways — few of them positive. Here in Maine examples of the expected changes include sea levels rising (bad for people and businesses in coastal areas), shorter winters (less skiing, snowmobiling and other winter activities), less productive maple syrup seasons, more summer days with temperatures over 100 degrees, climate more like New Jersey, and changes in the species of trees which will dominate our forests, just to name a few.

The State of Maine is in the forefront of efforts to reduce the amount of CO_2 we release into the atmosphere, including being a founding member of the Regional Greenhouse Gas Initiative which has as its goal to reduce the amount of CO_2 released by fossil fuel power plants by 10% in the next ten years. In addition, Governor Baldacci and the Maine Legislature have adopted a "climate change action plan" and set goals for achieving reductions in the amounts of greenhouse gases Maine people and businesses release into the atmosphere.

Many Maine people want to help do their part in controlling global warming, and their individual efforts can add up to big reductions. The average Maine household produces 28,000 pounds of CO_2 annually, but a few simple measures can enable them to reduce their carbon dioxide substantially. The Public Advocate recently reduced the CO_2 output of his home this year by almost 20,000 pounds per year. The Maine Public Utilities Commission (PUC) has recently launched a "10,000 Carbon Free Homes" initiative that helps families and individuals determine their contribution to global warming (called their "carbon footprint"); take simple, low cost steps to use energy more efficiently; and switch to clean, carbon-free electricity (see *Green Power*, opposite). If 10,000 Maine households enroll in the Carbon Free Homes program, and take steps to reduce their carbon footprint, more than 58 million pounds of CO_2 will be kept out of the atmosphere every year.

The "10,000 Carbon Free Homes" web site (**www.10000carbonfreehomes.com**) allows a family an easy way to calculate their annual CO_2 emissions, to learn what simple low and no-cost steps they can take to reduce their home's CO_2 emissions, and to sign up to get their electricity from carbon-free, renewable sources like wind and water. It takes only a few minutes to provide the necessary information about the amount of your household's energy usage (electricity, oil, natural gas, propane, kerosene, wood), and your family size. The calculator at the web site will quickly tell you your CO_2 emissions. You can then get information on things you can do to cut your emissions. If you are willing to purchase electricity from carbon-free sources, there are several suppliers listed and you can make this change while you're on-line.

The Kill-A-Watt Electric Usage Monitor

NAME TK, REVIEWER

IF YOU RE A GADGET GEEK and interested in reducing your electric bill, you may have heard of the Kill-A-Watt Electric Usage Monitor. The device allows you to determine how much electricity any 110v appliance consumes during any usage period and figure out what it costs to operate. Armed with this information, you can determine which appliances have the biggest impact on your monthly bill, and even evaluate whether you should replace an appliance with a more energy efficient model that will pay for itself in energy savings.

Recent studies in Ontario, Canada have shown that knowing the electricity usage of your appliances helps you use them more efficiently, and can help reduce your electricity bill by 5–20%. Given the wide array of electricity-using devices you have around the house (refrigerator, freezer, TV, air conditioner, computer, AV equipment, oven, microwave, hot tub, lamps...you get the idea) saving as little as 5% each month will quickly pay for the Kill-A-Watt Electric Usage Monitor ... and reduce your carbon footprint.

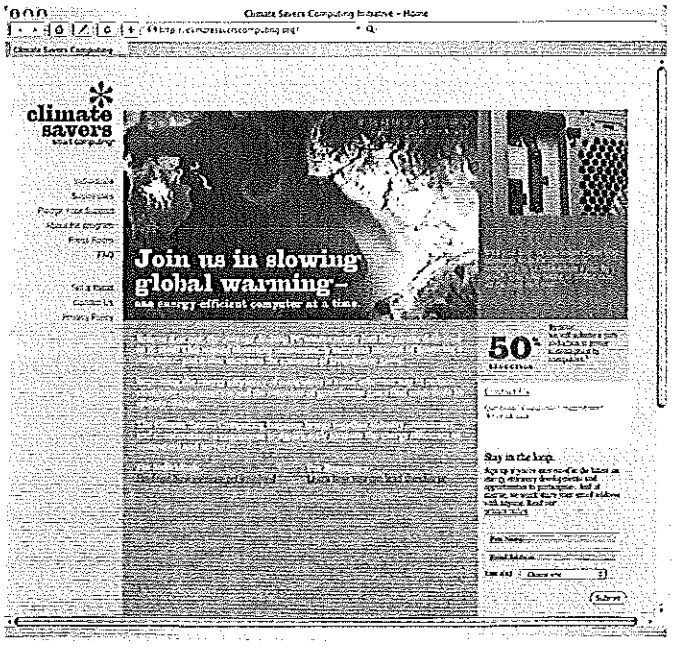
The Kill-A-Watt monitor is relatively easy to use, is portable, and allows you to pinpoint which electronics are the biggest contributors to the size of your electric bill, but it has a few shortcomings. It lacks a battery backup so when you unplug it you lose the data you just collected. You'll need to write it down. Reading the LCD display is best done from directly in front, not from an angle. Lastly, it lacks a feature to translate the data you collect into actual costs. You'll need to use the per kilowatt-hour cost found on your electric bill to calculate what each appliance costs to use. Make sure to add the delivery and supply rates on your bill to get the total kWh rate (see our graph on page 1).

We Googled the Kill-A-Watt Electric Usage Monitor (P3 International, Model #4400) and found it being offered by about 580 sites on the Web, with almost as many different prices. The lowest price found was $21.99 + shipping.

This device can provide very useful information for anyone interested in lowering their electric bill, but once you've tested your appliances you may not have much more use for it. It would be great if Maine's electric utilities would acquire a number of them and allow customers to borrow them to test their appliances. Elsewhere in the US there are a few utilities which provide such devices to customers at no charge.

COMPUTER POWER PCs get PC

A large group of computer industry companies and environmental organizations, along with the federal Environmental Protection Agency, recently announced a collaborative effort to make computers more energy efficient. Called the Climate Savers Computing Initiative, the goals include reducing computers' power use 50% energy efficient by 2010, leading to $7.5 billion in savings in energy costs and a reduction of 54 million tons of CO2 emissions. For more information, go to www.climatesaverscomputing.org.



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Standing (left to right): Dick, Charlie, Eric, Patty, Bill
Seated (l to r): Mary, Debbie, Wayne

The Public Advocate and his staff are committed to public service in representing Maine utility consumers. We work to ensure that they have affordable, high quality unbiased information to help consumers make the best choices. We who work at the Public Advocate's Office seek to carry out this representation in a principled, diligent and compassionate manner.

Maine consumers are welcome to call our office with questions. Our staff members can also be made available to speak to groups interested in utility issues or to those interested in advice on electric or telecommunications services.