

Presentation by: Larry Chretien, Executive Director of Mass Energy
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Solving the Energy Crisis: Energy Conservation and Clean Energy

As some of you may remember, I spoke here last March about energy issues and what my organization is up to. Today, I would like to review what when on in 2004, what we might expect in 2005, and to update you on what Mass Energy is doing.

Obviously, everyone is an energy consumer, so you know that 2004 was an expensive one. Crude oil started 2004 at \$34 per barrel, which many thought was high, and just kept rising, hitting a peak in October of over \$55 per barrel, and today it is \$43 per barrel. The average retail price of heating oil in Massachusetts is about \$1.91 per gallons, 45 cents per gallon more than last year. There are lots of reasons for this – but I'll just highlight one. In the last five years or so – huge countries like China and India have finally begun using enormous amount of fossil fuels. This is going to be a permanent factor. I don't think that we'll see \$55 per barrel for some time, but I will also bet anyone here that we will not see oil below \$30 per barrel in the next couple of years.

But even today, it is cheaper to heat a home with oil than gas. And high natural gas prices affect us all because in recent years, the nation, New England, and Boston, in particular, have become increasingly dependent upon gas as a fuel in power plants – so much so that the price we pay for electricity is based upon the price of natural gas now. In the mid-1990s, a lot of experts and policymakers thought that natural gas was going to be cheap. Now no one is making that claim. Natural gas prices are more than double what they were for most of the 1990s. Predictions about natural gas prices by the Dept. of Energy almost always end up being too low. But now, even DOE has revised their projections upward and almost everyone expects that natural gas prices are going to be high and volatile for years to come – especially here in Greater Boston because 80% of the electricity generated in this area will come from natural gas in 2010, or 90% if they convert the Salem power plant from coal to gas. And most of the natural gas is imported and future supplies are going to have to come from LNG tankers – at an added cost because of concerns about national security.

Bear in mind that this will affect us as consumers and it will affect our region's economic competitiveness. So what can be done?

First, every month, every electricity customer – residential, commercial, industrial, government - pays into a small fund for energy efficiency programs – about 2% of our bill. Study after study has shown that those programs are very cost-effective. It costs an average of 3 cents to save a kWh of electricity. But it costs between 8 and 10 cents to produce it with natural gas, transmit it from the power plant to our communities, and distribute it throughout a town. In Massachusetts, we all spend about \$5.5 billion per year on electricity. But the energy conservation program is funded at just \$115 million per year, again, that's about 2% of the total. So the smartest thing we could do is simply save more energy – even if it means increasing that small fee we all pay every month. So we should stop throwing good money after bad, and realize that throwing more money after fossil fuels just means that we see higher prices for fossil fuels.

We are leaving money on the table and I think that the reasons are these:

- 1) The big energy companies are good at getting what they want.
- 2) Even at today's prices, the average family spends a smaller share of their incomes on energy than they did years ago. So, if it takes a little thought to save energy, we tend to put it off. I think that's a bad mistake. So I urge you to:
 - Call 1-866-527-7283 to learn more about how to make your home or business energy efficient.
 - Buy Energy Star appliances instead of appliances that do not carry the Energy Star logo.
 - Ask your state legislators to pass the Appliance Efficiency Standards bill that MASSPIRG has been promoting. By making sure that some appliances meet certain standards for energy efficiency, we can save energy at about a penny per kilowatt hour – about a tenth of what it costs to produce it, transmit, and distribute it.

Now, let's talk about that project called Cape Wind. Until February 24, the public is invited to comment on the Draft Environmental Impact Statement for that project. Although we have no financial interest in Cape Wind, my organization is in strong support of that project, contingent upon just one thing – that the Army Corps of Engineers work with the Mass. Audubon Society to collect a little more data on how the project might affect birdlife. We expect that the data will not show the likelihood of excessive bird kills. Assuming that's true, the benefits of the project greatly outweigh the negatives. Cape Wind will help to reduce electricity rates throughout New England because of the way that power from generators is dispatched into the New England power grid. Every day, generators bid into the spot market for power based upon their cost of operation. For a wind project, the cost to operate is close to zero. So when Cape Wind gets into the grid, it will displace an equivalent amount of natural gas-fired power.

Now my take is that the Army Corps of Engineers will give Cape Wind an okay because the Environmental Impact Statement will demonstrate it is in the public interest. Governor Romney, Attorney General Reilly, Senator Kennedy and Congressman Delahunt are opposing it for political reasons, but if the developer can afford the cost of dealing with appeals to permit decisions, the project will be built. Bill Delahunt is my friend and I will work on any campaign he asks me to, but I think he's mistaken on Cape Wind.

By February 24, write to the Army Corps of Engineers with your opinion about the Cape Wind project. I have that address if you need it.

But Ted Kennedy and Walter Cronkite are not the only ones who should have a wind turbine in their backyard. Let Mayor Phelan and your city councilors know that a wind turbine in Quincy, like the one in Hull, would be a good idea.

I also hope you will join Mass Energy – and through our buying group, purchase:

- Heating oil – regardless of your income, you can save money. Today, our members are paying 25-30 cents per gallon less than the state average for full-service dealers.
- Bio Heat – that is 10% soybean oil and 90% low-sulfur heating oil, for about the same price per gallon as the average price for heating oil in Massachusetts. You can make a dramatic environmental difference and support a growing domestic energy source.
- Electricity generated from renewable energy – take a look at the brochures we are passing out. When you choose one of Mass Energy's renewable energy products:
 - You will be able to receive a tax deduction if you itemize. We are the only supplier that you offer tax-deductible renewable energy.
 - The Mass. Technology Collaborative will match your spending by giving a renewable energy project grant to your community. This will help, for example, to pay for solar panels on your local school or library. For example, like the solar panels at North Quincy High School, which were installed with generous help last year from the Quincy Rotary.
 - MTC will also match your spending by funding renewable energy and energy efficiency to benefit low-income people.

Mass Energy also runs an Oil Bank program in which we make emergency oil deliveries for families who have exhausted their fuel assistance benefit. But as a nonprofit, we can only provide as much assistance as we receive ourselves. So if you would like to make a tax-deductible donation to Mass Energy's Oil Bank, it would be greatly appreciated in this year of record high heating bills.

On the same subject, contact Governor Romney or your state legislators and ask them to approve a proposed \$15 million appropriation for fuel assistance. Most of us can afford heating bills of \$2000 a winter. But the poorest among us cannot. The federal government underfunds the fuel assistance program and in the eighties, the state provided supplemental funding, but it doesn't anymore. If we could afford \$15 million in the eighties, we can afford to today.

Let me conclude by saying that if we continue to do energy business as usual – gallon by gallon and kilowatt hour by kilowatt hour, we will become collectively poorer, more dependent upon foreign sources of oil and natural gas, and we will cause irrevocable harm to the planet. Let me just say this about climate change. I will be harsh as I sometimes can be. If you have not already, someday you will look at your children and grandchildren and cry when you think about how this country failed to ratify the Kyoto Treaty on reducing the greenhouse gases that cause climate change.

But if we pay attention today, be thankful for the resources we have, and take advantage of opportunities that are all around us, we will enjoy better lives and feel good about what we will be passing onto future generations.

Thanks very much.

http://www.eia.doe.gov/cneaf/electricity/st_profiles/massachusetts.pdf

This table says that petroleum in Mass. for power was 150,000 Btu per gallon, and cost 355 cents per million Btu

Sulfur content = 1%.

What is heat rate of B100 compared to distillate oil?

http://bioenergy.ornl.gov/papers/misc/biochar_factsheet.html.

This seems to indicate that biodiesel is 40 GJ/t vs. distillate at 43 GJ/t.

DOER 2002 Energy Efficiency Activities Report Released: The Massachusetts Division of Energy Resources (DOER) recently released its 5th annual report to the legislature on the status of energy efficiency activities in Massachusetts. The report highlights the status of ratepayer-funded energy efficiency activities in the Commonwealth, and the extent to which the statewide energy efficiency goals are being met. Specific topics include: program cost-effectiveness, equitable allocation of funds between customer classes, balancing of short-term and long-term saving objectives, and the development of a competitive market for energy efficiency services. [Click here](#) to read the full report.

http://www.mass.gov/doer/pub_info/ee02-long.pdf