

Haverhill Mayor's Energy Task Force

26 January 2007 Meeting Minutes

Room 301, Haverhill City Hall
Monday 26 January 2007 7:00 pm

Task force members in attendance:

Jim Fiorentini, Mayor
Kevin Flaherty, Highway Department
Mike LaBonte, Chairman

Others in attendance:

Paul Bergman
Kathy LaRoque
Chris Donovan
Jared Fortna
Ted Becker

Mike LaBonte conducted the meeting

Mike LaBonte opened the meeting with introductions and a brief task force history. Mike thanked Kathy LaRoque for her efforts to promote the meeting in the media.

The Mayor explained the parameters under which the task force would operate, and set expectations. Task force meetings must be open to the public. The public must be notified of task force meetings at least one week in advance. Notice must be posted on the bulletin board outside the City Clerk's office, as well as in a local newspaper. Minutes of each meeting are to be recorded. All documents must be publicly available. The Mayor reserves the right to accept or reject recommendations made by the task force. An expected delivery date will be associated with each task.

The Mayor asked the task force to pursue performance guaranteed contracting to reduce energy expenses for one or more city facilities. Performance guaranteed contracts result from legislation co-sponsored by Representative Brian Dempsey. The essential feature is that the city is liable for the cost of work done only to the degree that energy savings are realized. The task force must produce a proposal for such a project within 6 months after this meeting.

Mike gave the URL for a new web site that he created for the task force. The URL is <http://havenergy.civiczone.net>. All task force documents will be available for download from this web site. The web site also contains a gallery of existing renewable energy projects in Haverhill, as well as a message board where the public can share ideas. It was agreed that a link to this web site would be placed on the Mayor's own web page. Mike will contact IT Director Pamela Carr to request this change.

We discussed the feasibility of using bio-fuels for city vehicles. Ethanol is usually sold as E85, which contains 85 percent ethanol and 15 percent gasoline. E85 has very low availability in our area, and the city may not own the flexible fuel vehicles required to use it. Bio-diesel is slightly more available, and it is generally believed that standard diesel vehicles are able to use B20 bio-diesel fuel, which contains 20 percent vegetable oil and 80 percent petroleum diesel fuel. Paul Bergman asked about energy content of bio-diesel, as it was his understanding that E85 ethanol fuel contains significantly less energy per gallon than pure gasoline does. Several attendees believed that B20 bio-diesel would have nearly the same energy content as pure petroleum diesel fuel.

Haverhill maintains an underground diesel fuel tank at the Highway Department facility on Primrose Street for fueling city diesel vehicles. Diesel fuel is purchased in bulk at prices lower than retail. It was felt that if bio-diesel were used by the city it would be best to install a second tank. Since the nearest retail bio-diesel station is currently in Newmarket, NH this would eliminate the need to have city vehicles driving that distance to refuel. Also, we might plan for the future by designing the new tank to be capable of holding B100 bio-diesel, which is somewhat more corrosive than petroleum diesel. By retaining the petroleum diesel tank we would allow for older vehicles that might be unable to use bio-diesel. Since there was some uncertainty about the ability of existing city vehicles to use bio-diesel, Mike suggested conducting a small experiment in which one city vehicle was selected to refuel with bio-diesel at the Newmarket, NH station. Kevin Flaherty agreed to do this, and also to research available literature on bio-diesel compatibility. The task force must accomplish this task and report within 60 days.

The discussion turned to wind energy. Paul Bergman presented information on the wind generator recently installed by Covanta Energy at Ward Hill Neck. This is a 10kW unit made by Bergey, installed at a cost estimated near \$75,000. Its peak output is dwarfed by the waste-to-energy facility, which produces 42MW. Covanta has begun construction of a new system using a generator made by Caterpillar, to be powered by the methane emitted from one of the trash "cells". This cell contains trash dumped while the Covanta facility was under construction, and methane generated within it has been flared, which means burned into the air. Using the methane to generate approximately 1.3MW of electric power will be an improvement.

Paul also discussed other wind systems such as that installed at Hull High School. The 40kW Enertech system provided about 40% of the high school's energy needs. It has since been replaced with a Vestas system, and there are now 2 wind generators. The International Brotherhood of Electrical Workers also operates a wind generator in Dorchester. Paul mentioned that photovoltaic (PV) systems make a good complement to wind systems, by providing additional capacity during the day time, when electric demand is higher.

It was felt that Golden Hill or Silver Hill might be suitable sites for a new wind generator, but Paul explained that a proper site survey is usually necessary to make this determination. To utilize the power it is best to locate the wind system near a city-owned building. The wind generator would offset the electric demand of the building, and possibly deliver some power into the electric grid. Ted Becker liked the idea of living in a "green" community, and felt that finding successful similar projects would help guide us.

We agreed that it would be desirable to pursue wind energy, and discussed ways to proceed. Some ideas discussed were to contact Brian Dempsey and also the Massachusetts Technology Collaborative for

advice. Jared Fortna agreed to research this and report.

February 26, 2007, a Monday, was set as the next meeting date. Mike will arrange for notifications and meeting facilities. The meeting would most likely be in the same location, room 301, at 7:00 pm.

The meeting ended at 9:10 pm