

**SPECIAL COMMITTEE ON ENERGY CONTRACTS AND
RELATED ACTIVITIES**

March 15, 2010

5:30 PM

Chairman Shea called the meeting to order.

The Clerk called the roll.

Present: Aldermen Shea, Osborne, Corriveau, Shaw, Greazzo

Messrs: T. Clougherty, K. Sampson

Chairman Shea addressed item 3 of the agenda:

3. Presentation by the Highway Department regarding energy purchasing.

Chairman Shea stated Tim will give the background regarding the research and a recommendation of the Highway Department relating to the purchasing of petroleum based products from December of 2008 to the present time for the City and the savings that have been realized for natural gas, electricity and oil.

On motion of Alderman Osborne, duly seconded by Alderman Greazzo, it was voted to discuss this item.

Mr. Tim Clougherty, Deputy Public Works Director, stated thank you, Mr. Chairman. Joining me is Keith Sampson. He is with CES, Competitive Energy Services, and they are our consultant, advising us on commodity purchases and helping us to procure those products. Also joining me is Don Pinard, our Business Service Officer and Mindy Salomone-Abood who is our Coordinated Purchasing Agent. Both of these individuals are heavily involved in the purchases we are talking about. As the Chairman summarized, back in 2008 we came to the Committee with the idea of purchasing power, electricity as well as natural gas and petroleum based products, on the open market. It is something that was allowed by deregulation of the electricity industry and it is also deregulated in the natural gas industry and obviously petroleum based products are something that fluctuate from a commodity perspective quite substantially. We thought it would be in the City's best interest to put all of our accounts together from all City departments, all of the School District, and include our Enterprise funds: Airport, Water Works and our Environmental Protection Division Waste Water Treatment

Plant. We have also gotten the Manchester Transit Authority involved. We have quite a bit of buying power. We have been able to leverage that buying power and produce some savings. Those savings far exceeded what we would normally have been offered should we have taken advantage of the rates that the utilities had offered. I think we have also been able, with the help of CES, to take advantage of differential market conditions to better understand how the prices of the various commodities affect in long run petroleum based products, which are volatile. We have been able to achieve some savings. Just for everyone's awareness, from a petroleum product perspective, the City in the aggregate consumes about one million gallons of product. That is probably worth about \$2.50 per gallon or about \$2.5 million; electricity is over 50 million kilowatt hours and roughly \$.08 per kilowatt hour giving that a value of somewhere around \$4 million; natural gas is about 200,000 dekatherms and the value of that is about \$2 million. All in all, annually, our responsibilities are for purchasing in excess of \$8.5 million worth of these products. We don't take the responsibility lightly and we put a lot of thought into it. With that, I will turn it over to Keith Sampson who is going to give us a synopsis of where we have been since 2008, how we made out in FY09, how we anticipate making out in FY10 and what the future is looking like.

Mr. Keith Sampson, Competitive Energy Services, stated we are a consulting company based out of Portland, Maine. Our primary focus is helping clients procure all fuels and assisting them with all other items that surround procurement: contracting and ultimately budgeting and accounting for those dollars. We have had huge success in this program. It is definitely something that our firm is proud of. These guys have been an excellent partner. We have worked well. Communication is constant. We monitor the markets every single day with your purchasing needs in mind and with a very long term horizon. I worked with the City to put together this report for this group here just to summarize and give a high level view of the success that we have had and talk about the future. We have been blessed, even though we can't ultimately really control, with the market conditions. While they have been extremely volatile as I'll show in a second, since we started this program, the market conditions have played to our favor and we took advantage of those market conditions where today, we are seeing all-time low prices for natural gas. Natural gas is so important to everyone in New England because natural gas drives the cost of electricity and electricity is your highest dollar spent here. As goes the price of natural gas, goes the price of the electricity commodity. That is a very important thing to remember. These are some historic graphs. What we have lived through since May of 2004 is an inclining market, a market that has gone up and also has had a lot of volatility. Then we hit what we like to call the Mount Everest where crude prices went to a record of \$147 a barrel and very quickly fell from that high level. As the economy started to fail the commodity market followed suit. This Mount Everest is what we have navigated so well through this purchasing approach. We have worked together to purchase electricity, natural gas, number two heating oil, number four heating oil, ultra low

sulfur diesel and unleaded fuel during the time frame of December 2008 and the current contracts which take us through December 2010. Again, we evaluate a number of factors as we go into this by looking at market conditions. Everything is bid out to all suppliers and we have a process for providing that information that is transparent. It is a summary that shows the City what the bidding prices were. We ultimately select the low cost supplier and we work with the City to scrub those contracts and to make sure that we are playing apples to apples. That is a big part of what CES does here. We ultimately have to try to predict what is going to happen with these commodity markets. We look at supply and demand, economic conditions and at the same time we have always had this backdrop of if we did nothing and we went on the utility rate, what would that have cost. That is our base price. The big thing that comes from locking your energy commodity is budget assurance. It is helpful to a municipality to be able to walk in and know what their price is going to be, going forward. That is a big part of what we do. The net savings have been a savings over a variety of different of factors. I'm going to present those in a second. The savings over the public utility rate for electricity and natural gas, and again that is a basis for our evaluation of performance...the savings have also been locked for FY10 and we can make some determination about exactly how we think we have done against those other markets. Moving forward, there is tremendous opportunity as we sit here today that we are in the process of capitalizing on to take savings over current prices as well as savings over projected default rates into FY2011. The intent is to continue to move forward as we look into 2012. The best way to buy an energy product is to be looking forward into the market and have the ability to buy when the market is right. You can contract for energy as many as three years ahead. That is the ultimate way to do this. That is what we have taken advantage of. This is just a brief slide that shows how the City has done in terms of when we locked our prices relative to the commodity market of natural gas. This is for a natural gas commodity purchase where we bought below the trend line and we missed that massive incline that would have impacted your rates for FY09 and FY10 if we hadn't been smart about our purchases. Here again, electricity purchases. As I mentioned, it is tied to the natural gas commodity buying below the trend line, buying behind the Mount Everest. At the same time, every one of our contracts continues to go down in price. This is the oil story. We bought in front of that Mount Everest and then we bought a whole lot when the market came up behind that Mount Everest and we did lock a large majority of the City's oil for FY2010 when the crude market was at a low level of \$47 per barrel. Today it is trading in the \$70 to \$80 barrel range. That is a huge homerun. The challenge in front of us today is to try to repeat that performance based on a commodity market that seems to have an appetite for \$70 to \$80 a barrel. I'll talk about that a little bit, but that is what we do. We live this market every single day. Let's talk about the energy markets and where we are today. This is important for everyone watching to understand. Crude oil and natural gas are two vastly different products. Crude oil is a product that is a world demanded product and it is a world market product.

Effectively, crude oil is trading above where it should be because of fundamentals such as dollar devaluation, market manipulation and trading. Natural gas has performed a lot more like it should have based on fundamentals. Natural gas is the fuel of the future for North America. We extract natural gas here, we use it here and more infrastructure comes into North America and New England every single day to take advantage of that fossil fuel called natural gas. It is clean and it has a lower carbon output so as we continue to move forward, my recommendation on a very vast level is for the City to continue to explore opportunities to use natural gas. It is a little bit of a soapbox, but it is how I feel that we ought to play this thing going forward. Things that affect energy markets are demand and supply. They measure natural gas and petroleum in storage levels so we know how much gas we have in storage. We are at record levels of natural gas storage. The other thing that can impact natural gas prices is weather. Looking back historically, Hurricanes Katrina and Rita had a big impact on natural gas prices. Ultimately, the infrastructure, the cost of getting the electricity and the natural gas and the fuels to your doorstep, is a cost to those energy markets. Again, this is a snapshot of the Northeast and you can see the infrastructure that continues to come in up in New Brunswick, Canada, with pipelines headed down into New England. What used to look like one big pipeline without a whole lot of offshoots is quickly becoming a vast network of natural gas piping. That is going to continue to be able to bring natural gas to the Northeast in a more cost effective manner. That is important because natural gas impacts our electricity costs. This is a two year strip. We call it a 12 month forward strip looking at the cost of crude oil. It is pretty straight forward. Crude went to \$147 and dropped down into the lower \$40 range and now it is trading in the \$70 to \$80 range. Crude prices directly affect the cost of unleaded fuels, heating oil, heavy oil, and heavy heating oil. This is the heating oil curve. The beauty of this curve is that we bought the majority of our oil between January and March of 2009. We hedged for this winter currently under those market conditions. This gave us a lot of savings. This is the natural gas curve. Again, with the Mount Everest, the difference today is natural gas is trading in roughly the same range as it was when we made a lot of our purchases back in the beginning part of 2009. There is an opportunity buy electricity and natural gas even lower than what we are currently priced at because of this natural gas price market shift. It has taken some patience and a lot of market monitoring, but this is what we have been able to accomplish. This is a quick graph that shows the natural gases in storage. The red line shows that we are in a great place in terms of natural gas storage. We will go into this summer with a glut of natural gas which puts more downward pressure on the cost of that commodity. This is a very quick trend chart that my company provides to the City every week and it shows the relative cost of natural gas contract because that is what impacts electricity contracts. It looks at the highest and lowest price for that contract over the past 12 months. Today, the dotted line is sitting on the green line and that says the cost of natural gas today is the lowest that it has been in a year's time. This is a great opportunity and this is showing you a contract that takes you out five years, all the

way into July 2014. This is shifting away from the energy markets. The current conditions say it is the right time to buy electricity and natural gas and not so much the case for petroleum-based products. The challenge is how we get back to where we were when crude was at \$47 a barrel. That is something that we will need to work through and something that is active in our monitoring process. We have a strategy. This is what they call the default rate from the public utility, PSNH. Again, this is our benchmark in terms of energy and electricity contract performance so you can see the collective range. When you get to Mount Everest, you can see the price going up and it continued to incline. There are a whole bunch of other infrastructure issues going in within PSNH that Tim and I have been involved with. It is going to impact your cost of energy going forward in the next three to five years.

Mr. Clougherty stated we are going to concentrate on this. The Mayor is going to come in after this and we are going to talk about some solar initiatives that we have going on with PSNH so I would rather stick to this for right now.

Mr. Sampson stated this next chart really shows, in orange, the utility default rates. Those purple, green and blue bars represent the price that we contracted for electricity supply. It is a straight comparison of our cost against the cost for the utility. We have been well below that. I'll detail that going forward. What I have are three slides that show you the analysis of savings against the default rate, the utility rate from PSNH. It is simple math. You multiply your consumption by the differential in the rate. If the PSNH rate is \$.09 and our rate is \$.07, \$.02 times consumption is how this math works. The same thing holds true for natural gas. There is no default rate for oil products so we're not going to show those. This is how we ended up doing for FY2009 of buying our electricity and natural gas against the default rate. Default rates from utility, as I showed you, are volatile and variable. Not only did we see a \$400,000 savings, but we also had budget certainty. We knew our price was capped and we weren't going to be exposed to the Mount Everest that we experienced back in 2008. This is an important facet of what we did here. This is the slide that depicts how we anticipate doing against the default rate for FY10. Obviously 2010 isn't over, but we know what our contracted rates are and most of the utility default rates have been published and they are out on the street at this point. Again, we can make this play that says that we saved against the default rate \$177,000. The last is a forward look. This is the projection going forward of what we anticipate the PSNH rates to be. There is a lot of analysis that goes into that and a lot of looking at where the gas markets have been and where the utility rates have been so that we can make some assumptions. We also know what is real for pricing electricity for FY11 today. You have an opportunity to save significant dollars, almost half a million, on electricity and \$200,000 on gas based on historical and forward looking on utility rate pricing. It is a good opportunity for the City to lock in prices. Those are savings against utility rates. The next couple of slides will show you the cost of what our FY2010

spend is compared to the FY2009 spend. That is a true step down in what your actual expenditures would be. You see it lined out and we break everything out by the General, Enterprise and School categories. Electricity is \$228,000. We are spending more in FY10 than in FY09 on natural gas to the tune of \$14,000. It is not a big hit, but the way things have moved, this is the way our spending looks. We obviously made out very well on the fuel side because we capitalized on the low oil price. You can see the savings there. The move and the shift from FY10 to FY09 based on the commodity market for oil, electricity and natural gas is almost \$900,000. That is a successful program. Again, the challenge is how we look going forward. This is the story going forward based on the current market. Let me be pretty specific here. Electricity is a savings in FY11, use times rate, of \$300,000. Gas is \$200,000. It sounds like a pretty good picture, but the problem that we are faced with today is that the fuels market based on \$80 per barrel crude is going to cost \$500,000 more in FY11 than it did in FY10 primarily because we did so well in FY10. Looking forward, the strategy is to manage this piece of fuel based on market conditions. There are a lot of different ways we can buy fuels. We have a challenge ahead of us as to how we basically save back or work down the \$500,000 on the fuel side. Obviously, if we save \$500,000 on electricity and natural gas and it plays off of the fuel oils, we are breaking even or negative \$27,000 and that would be a pretty story. If the oil markets come down, which there is potential for, then we look at things based on supply and demand we can start to move that negative \$27,000 into a positive savings looking forward into FY2011.

Chairman Shea stated thank you for your presentation. I think the Mayor would like to speak concerning the matter that Tim brought up before regarding PSNH.

Mayor Gatsas stated thank you Mr. Chairman and members of the Committee. I was in Concord today having a conversation on Senate Bill 334, which talks about the solar panels at the old landfill that I have talked about in generalities with this Board. Senator DeVries brought in an amendment today that called up some of the ambiguities in that bill and talked about making Manchester a pilot program with funds that are coming in under ACPs. There is also \$2.4 million there so we may be able to talk about two megawatts. The capacity there is four megawatts. It would be a showcase for solar panels in the State of New Hampshire and probably all of New England. Some of them might appear on the side of the highway so tourists coming in and people driving through New Hampshire would have the opportunity to see them. It would be a public-private partnership with PSNH. We have just started scratching the surface with the MOU (Memorandum of Understanding). Again, the first priority is to make sure we get the legislation passed in Concord, making sure that Manchester would be a pilot program coming forward. I wanted to make sure that this Committee was aware of it so that any discussions that start we can start having those in the next month. Once it leaves the Senate and goes on to the House, hopefully we will have some House

members sitting on Energy who can propose an amendment that is the same that is coming out of the Senate so we can change the legislation much quicker so it doesn't have to go through PUC determination, which could take somewhere between 12 to 18 months. I know that we have a great cast of characters representing us in Concord and I will certainly have conversation with some of the representatives that are on this Board. With that, I would open it up to any questions you may have.

Alderman Osborne asked so all of this is broken down into three categories: General, Enterprise and School? Is that the way you are breaking it down?

Mr. Clougherty replied that's correct. The General is the General fund. Enterprise is Water Works, Environmental Protection and the Airport.

Alderman Greazzo asked Your Honor, is that initiative strictly solar or does it have any other alternative energy sources like wind?

Mayor Gatsas replied as a matter of fact, we had checked into wind before we went to the solar side, but the problem with wind is that you have to go 30 feet down or deeper to make sure that you put in the panels for the wind turbines and all of that is mostly filled right now so it would be very difficult for us to get down to a point where we would be to get into wind.

Alderman Greazzo stated I wasn't necessarily talking about the giant pinwheel apparatus that most people talk about. There are smaller more compact wind turbines that can be utilized. I was wondering if it was actually part of the discussion or if it was strictly solar.

Mayor Gatsas stated the discussion did start with wind. That was the first road we started going down. We looked at both the big turbines and the smaller ones, but the problem is that you would have to put in too many smaller ones to generate what you could get out of solar. The way that hill sits, the solar panels would fit the bill very nicely there.

Alderman Greazzo asked are there any plans to do wind or solar in other parts of the City? Does it just start here?

Mayor Gatsas replied this was the pilot program that we are trying to get somewhere around \$5 million, closer to \$7.5 million if we have the ability to do that to get two megawatts up there. The capacity up there is between four and five megawatts, depending on how we lay that field out. It would probably electrify about 300 houses per megawatt. There is an opportunity of doing 1,500 houses. You have to remember that we are putting the new Job Corps Center nearby. That is something that we need to consider as we go forward in the Memorandum of

Understanding. It is certainly a public-private partnership that we need to look at to see if we can create revenues for this community.

Chairman Shea asked is there anyone else who wants to speak to the Mayor concerning solar power?

Alderman Osborne asked how many houses do we have in Manchester?

Mayor Gatsas replied way too many to try to electrify with the project up there.

Alderman Osborne stated I understand that. Basically, how many are there? You are talking 1,500 houses that this is going to help.

Mayor Gatsas replied I would say between multifamily and single family there is between 30,000 and 35,000.

Alderman Osborne stated this is a small percentage right now.

Chairman Shea asked are there any general questions?

Alderman Corriveau stated looking at the FY2010 projected savings as compared to fiscal year 2009 on page six, perhaps a little bit of an explanation as to the Enterprise and the School items. I notice that Enterprise goes from \$188,000 to \$161,000 and School from \$186,000 to \$29,000. I'm wondering some of the reasons behind that in a year.

Mayor Gatsas stated I don't think the Schools were part of this energy saving package in 2009. They were in negotiated contracts that the City had so I think bringing that forward puts them in the same place that the City is.

Alderman Corriveau stated the Schools are on the 2009. I guess what I'm asking is I see the \$118,000 and the \$186,000 for Enterprise and School and then you project that to fiscal year 2010 and for Enterprise we are looking at \$61,000 and for School \$29,000. I was wondering how that volatility might occur for those two particular ones.

Mr. Sampson stated I'm still not understanding.

Alderman Corriveau stated we are looking at a total savings for Enterprise in 2010 projected of \$61,000 and for Schools almost \$30,000. The actual savings in 2009 for Enterprise were over \$118,000 and for Schools over \$186,000. I'm asking why the projection is so different for fiscal year 2010 as opposed to the actual savings realized in 2009.

Mr. Sampson stated it has to do with the mix of fuels. Within the Enterprise, we are factoring in the cost of the fossil fuel component. As we showed you, the swing is going to swing. The Schools are in a great position because a majority of their energy is electricity and natural gas to heat the building. We are capitalizing on that natural gas market. Enterprise involves the Highway Department, the over the road fuel gasoline, and ultra low sulfur diesel. That is what is going to impact...there isn't a lot of gas that they can capitalized in this slide.

Alderman Corriveau asked whereas for Schools you're saying that there is?

Mr. Sampson replied Schools are in a great position because they have gas.

Alderman Corriveau stated you mentioned a few times how electricity savings are very heavily tied to natural gas savings. Why is that?

Mr. Sampson replied because natural gas is straightforward. The supply of natural gas is priced based on the commodities market. The cost to generate electricity in the deregulated market is derived from gas because the asset mix that is used to generate that electricity is primarily gas fired. You are talking about electricity plants that use a gas turbine to drive the electrons out of it. Their primary mode of fuel is natural gas. There is some nuclear in Seabrook, but with the exception of that we are primarily looking at gas fired plants in New England. The cost of that fuel to drive that electricity generation is the price of natural gas.

Chairman Shea stated this is informational. We can use this information to have another meeting if we so wish regarding the other, but I'm not sure exactly. We could refer our findings to the regular Board.

City Clerk Matt Normand stated this is just a presentation so there is really no action necessary tonight.

Chairman Shea stated this is a presentation and there is no real reason to take a motion.

There being no further business, on motion of Alderman Greazzo, duly seconded by Alderman Shaw, it was voted to adjourn.

A True Record. Attest.

Clerk of Committee