

**SPECIAL COMMITTEE  
ENERGY CONTRACTS AND RELATED ACTIVITIES**

**April 2, 2012**

**5:00 p.m.**

Chairman Corriveau called the meeting to order.

The Clerk called the roll.

Present: Aldermen Corriveau, Shea, Arnold  
Alderman Shaw arrived late

Messrs: M. Whitten, K. O'Maley, J. Myrdek, T. Clougherty

Chairman Corriveau stated with the indulgence of the committee, I'd like to take up item four first.

Chairman Corriveau addressed item 4 of the agenda:

4. Discussion regarding MTA idling policy.

*On motion of Alderman Shea, duly seconded by Alderman Arnold, it was voted to discuss this item.*

Mr. Mike Whitten, MTA Director, stated good evening.

Chairman Corriveau stated I guess I should just say that a few weeks ago Mike took me on a tour of the MTA, and we had a discussion at the time that it was a pending policy you were working on, and a Citywide idling policy is something I

think is a worthwhile endeavor for this committee to explore. When Mike notified me that the MTA was developing one, I thought this would be a great way to kick off discussions. With that, why don't you tell us about it, Mike?

Mr. Whitten stated the MTA has two separate standalone idling policies. One has been in place since 2002 that covers all of our school vehicles. In brief summary, it's basically a five minute anti-idling policy. If a vehicle is going to be parked somewhere for longer than five minutes, they need to shut the vehicle off. The only exception to that is when they're actively loading or unloading students, and that's because of the red warning lights and the stop arm and what not that require the engine to be running for power. The transit policy has been in place for several years, at least since 2007, but what we lacked was a formal policy on paper. We had the practice, but we didn't have the policy that supported it. So we passed that through the board on February 28, 2012. It is a little different from the school policy. The idling time is a little shorter; we only allow transit buses to idle for three minutes. If they are going to be parked somewhere longer than that, they need to shut them down, and there is a temperature distinguishment here. If a transit bus is operating at temperatures below 32 degrees of temperature, they can idle for up to 15 minutes, and that's to keep passengers warm when the bus is doing some waiting downtown or perhaps at a shopping center, but if they're going to be there longer than 15 minutes, they still need to shut the vehicle down completely. If the temperature is below ten degrees below zero, then there is no time limit. They can idle as long as they need to so that the vehicle maintains enough temperature to start. If it gets too cold, there's a possibility that the fuel could gel and the vehicle becomes stranded where it is. There's also an upper threshold of 80 degrees Fahrenheit where the bus is able to continue idling so that the air conditioning can be run. The temperature inside a parked transit bus is about 15 degrees warmer than the temperature outside, so at that point it is 95 degrees in the vehicle. It is just a big metal box sitting in the sun, and poses some safety concerns for some passengers, especially seniors and children who are a

little more sensitive to temperature. Other than that, it is five minutes on schools, three minutes on transit.

Chairman Corriveau stated to start off the questions, this was just approved by the MTA commissioners?

Mr. Whitten replied yes, the transit one in 2012. The school has been around for about ten years.

Chairman Corriveau asked did you use any sort of other cities as a basis for doing this? I know you mentioned it was sort of past practice. How did you come to the policy?

Mr. Whitten replied five minutes has definitely been the consensus. I did an outreach to a number of transit properties to see what people used for their benchmark. Five minutes was what we got back. I felt we could do a little better than that, and that is why we went with the three.

Chairman Corriveau stated Mike, thank you for making us aware of the MTA's idling policy. I know that I've had some discussions with you and a couple of other department heads about looking into developing a policy for our City fleet, and obviously with a fleet manager on the way, we might have to put off coming up with such a policy for a couple of more months, but I thought it was important that we start the discussion now, and knowing that the MTA has done it and I should also say you guys are part of the Chamber's green initiative.

Mr. Whitten responded yes, we were the first designated green business in the City of Manchester. We went through an application process which involved bringing in a number of stakeholders from the community down to do an energy audit and a site visit for our facility, go through a number of our green practices, and our score

was high enough that we were designated an official green business. I believe there are three of them now. PSNH and there is a third business that has the designation, and we were happy to be in that charter group.

Chairman Corriveau stated that's fantastic. Congratulations and our kudos as well to the MTA commissioners on this policy. I'm glad to see it and hope we can start moving forward with a Citywide one.

Mr. Whitten stated we're glad to help however we can.

Chairman Corriveau stated I appreciate it. Thank you, Mike.

Chairman Corriveau addressed item 3 of the agenda:

3. Energy conservation contract update.

*On motion of Alderman Shea, duly seconded by Alderman Arnold, it was voted to discuss this item.*

Mr. Kevin O'Maley, Chief Facilities Manager, stated good afternoon everybody. With me is Jeff Myrdek from Aramark. He is our on-site energy manager who came along with the contract. If everybody recalls, I think we got together with this committee and the CIP Committee probably going on eight or nine months ago and we told you we would give you an update on where we are with the contract and how we're doing with savings and carbon reductions and those types of things. I'm going to go through this pretty quickly, so if anybody has any questions, I encourage you to stop me as I'm going along because I'm just going to kind of really keep it as high-level as much as possible. For the newer members of the committee, I wanted to let everybody know that the City of Manchester has had a very good tradition of focusing on energy and energy efficiencies for quite

some time. The City signed an energy service contract, or a performance contract, with a contractor called Moresco back in 1999, and that was for \$2.5 million. Then as everybody is aware, we had the design build school program and there was a significant portion of that that was devoted to putting in heat recovery units, energy recovery units, and additional ventilation, really expanding the building automation system that gives us a lot more control over the three million square feet that we have to heat and cool. Then most recently we had this other kind of pseudo performance contract that we started back in 2009 and we just wanted to really focus on improvements to lighting controls and ventilation and optimization and those types of things. The first thing that we did was look at what we have for in-house resources. We basically have ten people, including the control specialist, who takes care of a lot of the energy needs on the municipal side as well as the School District. We wanted to see what else was going on in the marketplace. The technology changes but the delivery of the service changes quite a bit as well. We did get a little over a million dollar bond through the stimulus funding. We also did get a \$1.13 million qualified energy conservation bond that was a zero interest bond. I had to do to a similar presentation up in Concord on Saturday and I found out from the Office of Energy Planning that the City of Manchester was the only one that took advantage of this qualified energy conservation bond in the state, and there's another \$3 to \$4 million dollars still floating around out there that they don't know what to do with that's been sent down to the counties, and since nobody has taken advantage of it, they're trying to figure out what to do with that balance. I think it was somewhere between \$3 and \$4 million.

Chairman Corriveau asked Kevin, would we have any projects that might qualify for that going forward or is something we're exploring right now?

Mr. O'Maley replied that's a great question. I was going to address that a little bit at the end. That's fine, we can talk about it now. You'll see when I get to the end of this presentation, the biggest thing is where do we go from here. The City has

done a great job with a lot of things. We do have other projects that we could spend this on, but we can really think out of the box. We have talked about putting a park at the landfill once upon a time. That might be something we could do with the funds. So it is kind of the sky is the limit, but the first thing is, if the City officials have the appetite for that, is to request to see if we would be able to use those funds. There are probably some strings associated with that where we already got some, so they might be reluctant to give us more, but the thing was there weren't any other municipalities that had the appetite to go through that bonding process. We had a number of municipalities that actually came to us and said since we were doing it, would you mind piggybacking our bond on your bond, and I think for all the right reasons, the City's financial director said that's not something we really want to get into the middle of doing some accounting for some other municipalities. We also got some money for rebates, \$358,000. I think that number is closer to a half million dollars right now, and then we did get a low-interest loan from the State. As we developed the process, like I mentioned before, we wanted to see what was out there relative to performance contracts or how anybody else delivers these types of things. We put an RFP together, we had 22 different responses, we had responses from performance contracting firms, engineering firms, utilities, some manufacturers like Snyder Electric was in there because they have a program where they do this as well, and then we selected Aramark as our partner with the City. One of the significant reasons for that was since we had so much funding available to us, we really didn't need to do a performance contract, but as we got to the end of this, as we are now, if we wanted to have that capability where somebody could bring some capital to the table, we wanted to have for them that ability. So our goals, and these are in order of priority: save money on the energy budget for the School District as well as the City for the benefit of the taxpayers, all the projects that we undertook, it was really about maximizing the return on investment or the payback to those projects. The other thing that was important to me was that we wanted to transfer the intellectual capital from the energy contractor to our personnel. A lot of times you

go through a performance contract like this and you'll decrease energy consumption, and then after they go away, there's a little bump in the usage of energy again, and by having them included in the process along the way, I think we've done a good job transferring that information to a good five or six people within our Facilities Division. We wanted to measure results at the meter. Some performance contractors will come in and say I changed so many light bulbs and that's going to save so many kilowatt hours and that's what they calculated the savings, but where the rubber meets the road is at the meter and that's what we're actually paying on so we did want the results to be measured at the meter. We wanted to have an awareness program. Again, in order for this program to be sustainable, we had to buy-in with all the City employees, teachers, principals and that type of thing. We also had an opportunity to eliminate deferred maintenance because some of that goes hand in hand with energy projects as well. The next sheet just shows where we got all our funding from. You can see that we got close to \$2.5 million we accumulated from different programs. One thing that wasn't on that other list was the Smart Start program. It is a PSNH program, and in item one there is a footnote there. I told you we had \$1.049 million from the EECDBG fund and we spent \$630,000 at West replacing two 600 horsepower boilers over there, and that was a deferred maintenance item because if we didn't take care of that...we saved a lot of energy from it, but those boilers were literally on their last legs, so that's why we invested those dollars over there.

Chairman Corriveau asked Kevin, what is the status of ARA EECDBG funding now? Is that exhausted essentially?

Mr. O'Maley replied pretty much. At that conference I was at this weekend there was a lot of discussion about what's everybody going to do now that those funds are not available, but as I mentioned, that qualified energy conservation bond is still out there. People didn't take advantage of it, so there are some things some

people can probably do to take care of some of that. That was part of the stimulus package as well.

Chairman Corriveau asked the qualified energy conservation bond?

Mr. O'Maley replied correct.

Chairman Corriveau asked that is federal?

Mr. O'Maley replied correct and then some of the components I mentioned earlier. We did have a dedicated energy program manager as well as the resources of the Aramark organization behind him. We also had a minimum savings level that was guaranteed in the contract. We wouldn't have selected anybody that we didn't think was going to make the guarantee, but our projections at this point, we don't have all the final numbers in, but it looks like we'll be able to exceed the guaranteed, which was about \$350,000. This was a little different than traditional performance contracting because we did have that cash that we were able to invest in the program so there was significant cash flow savings to the City and to the School District right off the bat. We did focus a lot of attention on just existing systems, and then we did measure it at the meter and we did do that knowledge transfer I was talking about earlier. The other thing was a little different than a normal performance contracting. A lot of times if you sign a performance contract, a performance contractor is going to come in and say they have not necessarily carte blanche, but they could do a lot of projects that we may agree with or disagree with, and as we did audits of the different things, we looked at the paybacks and we just took the projects that had very quick paybacks. So at the end of the day the City got more for its money. Now we'll transition into the results. What you see is kind of what we know today. These figures aren't audited. These are from Aramark. We're going through an audit process, we're one year into the contract, it was an 18-month contract, so now we can start taking

a look at these numbers compared to a baseline. You can see the blue is the electricity, the dollars in electricity that we have saved, and natural gas is on the other side of the pie chart. What you see now is where the savings landed up relative to the municipal buildings and the school buildings. Of the 3 million square feet that we have, 2.3 million square feet of that is in the municipal buildings, so you can see a lot of the savings results go to the School District. One thing I do is I enjoy benchmarking things against something else. Shown are a number of Aramark's accounts up in the northeast. You can see the Manchester School District is the second one from my left, and again, say we're 2/3 of the way through the program, so I imagine on a kBTU gross square foot base, this will be one of the most efficient entities that Aramark has to work with. The other one, the City of Manchester, is in there. That's kind of comparing apples and walnuts because you can't compare a fire station that's open 24/7/365 to a School District that's open eight or nine months out of the year, as well as City Hall. We have a pretty significant load in the libraries and the skating rinks and those types of things. But it is interesting to see where we fall there. Next shown are some really busy charts here. The one bar chart that is significant here is the one furthest to my right. That just shows the percent reduction that we've had in most of those buildings, and you can see we have had some where we have actually had energy increases in some of these buildings. Part of that is behavioral, part of that is some additional systems that have been put in place, but when you look at the Rines Center, for example, way down at the bottom, we're down close to 25% reduction. Those are very significant. A lot of times you'll see energy conservation programs and they are grateful for saving 3, 5, 6, 9%; we've done a very good job with this.

Alderman Arnold asked Kevin, speaking of the Rines Center, that 25% is a huge number. What was some of the work?

Mr. O'Maley replied a lot of it was controls. This happened even before Aramark got involved, but the way the system was set up there was kind of... I can't tell you why it was put together from a design perspective the way it was, but we were heating and cooling at the same time to meet temperature in certain locations. It was something that existed for quite a while, and we fixed that and I'd say that's probably where 70% of that 25% savings comes from. Then we're doing some other things there as well.

Alderman Arnold stated and how about the City library at 14.2% reduction.

Mr. O'Maley responded let me turn this over to Jeff. He is more familiar with the projects we did at the City library.

Mr. Jeff Myrdek, Aramark, stated we replaced the boiler there. That is a piece of that, and we also did a lot of control work there, we did some retro-commissioning. Right now we're in the process of doing an entire building lighting conversion. We're going to be using some new technology there, some daylight dimming ballasts and some LED lamps. But I would attribute that to two things. There's been an enhanced effort in looking at the controls and operation, and the other thing is the new boiler that's in there.

Alderman Arnold asked finally, how about Engines 6, 7 and 8. Those are all 10% reductions too.

Mr. O'Maley replied Engine 8 was something that came up, again, before Aramark got involved. When it first came here, we had a number of roof leaks as a result of ice dams and a bunch of other things. Basically when we went in there, the temperature in the wintertime at the top of the garage bay, it has a large gable roof, it was close to 100 degrees in the middle of the winter because we had so much stratification going on in there. There was a mechanical room that was generating

a lot of heat that was causing other ice dams, and there were some other HVAC issues. Just correcting those things, adding some additional insulation in the mechanical spaces in the B-stratification fans made a significant chunk of that difference up at Engine 8. When you look at the report I handed out, there are some things like with Engine 6 and Engine 7. Some of those fire stations, their total utility spends in the \$20,000 to \$25,000 range annually. We didn't spend a lot of time on those particular buildings. We were, again, trying to get the biggest bang for our buck.

Mr. O'Maley stated again, you look at West High and that just jumps off the charts. The thing that's interesting about doing a boiler replacement is that you save a lot of energy but the capital cost is just really intensive. When we did the engineering on replacing those boilers over there, we thought the payback was going to be in the 18-year timeframe, and we did some other projects so it's hard to segregate that out. But we really think that payback is going to be in the 11- or 12-year range now for the condensing boilers that we put in West High.

Mr. O'Maley continued this doesn't show that well, but shown is an accumulation of the savings to date. So right now through the end of last year we're projecting the savings calculation that the City's benefiting from the energy contract and some other things that we've done, about \$450,000. Posted is a busy chart, and I don't know for the members who were on last year, I think if you just focus on the bottom-line that is what is interesting. In the far right is the net payback to the City. What we did was we calculated all the funds that we don't have to pay back like this RGGI Fund, the EE CDBG Fund, we'd have to pay that back, and we have building aid on a lot of these projects as well. So if you calculate just on the projects where we have to pay money back, which is the bond as well as the State energy loan fund and as well as the Smart Start Program and accumulate all of that together, we have a 2.5-year payback on all of these projects, which is incredibly significant. That's about a 20 or 25% return on investment. I'd give my left arm

to have that kind of return on investment. But even if you go to the simple payback, you took all the cost into consideration, everything that had to be paid back, I mean the paybacks averaged out over 4.2 years, which that in and of itself is you have a very significant payback. We're projecting when all the projects are done and we start finishing up the audits, Aramark's projecting about \$535,000. I think that number is a little conservative. I'm estimating it will probably be closer to \$550,000 on an annualized basis. Posted are more results. This is something on a portfolio manager, it's an EPA tool. If you look at the box indicated, when we started the program, the baseline year ended in December 2009, our baseline rating was 56, it is currently at 75 and you can see the box right below that, we have reduced our energy consumption in the School District 20%, again, a very significant number. And an energy star rating is based on a scale of 1:100. If you get an energy star rating at 75 or above, you're considered in the top 25% across the country and that's compared to all the K -12 schools across the country. So our district in totality is in the top 25% of all schools nationwide.

Chairman Corriveau stated so Kevin you're saying the School District, the work that we've done in the schools, has saved over 20% of our energy usage just in two years.

Mr. O'Maley replied that's correct.

Chairman Corriveau stated that's awesome.

Mr. O'Maley stated so this is what we've completed in the first year and this is ending in December of 2011. We've got about 90 projects done. Before Aramark started we had one school that was energy star certified, and that's again, that's if you're at 75 or above. I think we're really at about eight or nine schools that are energy star certified now. We're in the process of filing those applications. I'll

talk a little bit more about that. We've got a City sustainability website up and running.

Chairman Corriveau asked do you know that URL off the top of your head?

Mr. O'Maley replied you can get to it right off the homepage right next to the mayor's picture. There's something on the right that says sustainable Manchester. The second newsletter has been published. I think I reported to the committee that West High was recognized in the EPA Battle of the Buildings. We were the best school in the northeast and the regional director came up from Boston and recognized the students at West High for exceptional performance up there. Shown now are some raw numbers. What I did here was...all of the contracts are set up in energy, you're looking at avoided cost, but when you look at FY2009 in the School District compared to 2008, just in raw costs, not avoided costs, we actually took \$118,000 out of the budget compared to 2008. In 2010 compared to 2009, we took that down another \$360,000. That's not avoided cost, those are just dollars that were taken right out of the budget, and FY2011 compared to 2010, there was another \$276,000 that was taken out after that, and then we're projecting for this year probably another \$200,000. So those are just real dollars. That's not avoided cost of anything like that. So when you total all of those things up, it accumulated to just less than a million dollars compared to 2008 for the School District. An avoided cost, and I'll talk about that graphically in a second, there's really about \$2 million in avoided cost that's been taken advantage of in the School District. When you look at the actual energy expense reduction, those are those exact same numbers. We started at \$3.63 million and currently for FY2012 we're projecting the schools' total energy spending is going to be in the \$2.6 million range.

Alderman Arnold stated so Kevin you're saying in just four years, the School District is now spending nearly a million dollars less in energy consumption.

Mr. O'Maley replied absolutely.

Alderman Arnold stated fantastic.

Mr. O'Maley stated when I talk about avoided cost is that is if we didn't do anything to reduce consumption. Say our consumption line was just flat as shown. What happens is year to year the utilities are passing along costs, annual increases, they have to obviously go to the Public Utilities Commission, so even if our utility consumption was flat, shown would be the additional spending we would have for spending the exact same amount of energy. So when they talk about avoided cost, if you take the current rate or the default rate of what the utility is compared to what we're currently spending, the difference between those two points is really the avoided cost that we've taken advantage of. We talked a little bit about energy star. We are going to get those other eight or nine buildings energy star rated. We've applied to the EPA to become an energy star partner; that is what they call it. If the City so desires, we can use this logo on our letterhead or in the bottom right- or left-hand corner, as well as the School District. Shown is a snapshot of what the City's website main page looks like. I didn't bring it up off from the web or anything, but I would encourage everybody to spend a little time on that. Every month we have a team of people that meet, talk about this, figure out how to update, keep it current, and anybody that has any ideas, we're happy to evaluate those. There is a component of this where people can email us and we'll answer questions. If they have a question at their home or office building or whatever, we'll do that. I was encouraged by the last email. We actually got a teacher in the City of Manchester who made some recommendations to put some additional links, so it's good to know people are actually out there reading this. What is posted kind of gets to one of the questions relative to QECB. I shamelessly stole this chart from another energy performance contractor. I continue to sit in meetings all of the time and Nashua gets some recognition because they have a

CNG vehicle, and I was at a presentation last week and Portsmouth is an eco-municipality and Keene is green because they're out in the middle of the woods and everybody perceives those as a green sustainable community. But we've accomplished a lot in the City of Manchester. Waste Management who has a contract for recycling at the School District says we do a better job recycling than any of their other clients, and they're a very significant presence when it comes to recycling. I know that Mr. Sheppard and Alderman Craig and Mr. Clougherty are working at rolling out another single-stream recycling program. Where we're at from an energy perspective, there's no doubt in my mind we have taken a leadership position in that as well, and I know that because as I talk to my colleagues around the state, when I say how are you doing on an energy per square foot basis or a cost per square foot basis, they don't even know where they are at. Just the fact that we're getting buildings energy star certified and we know those things, that's pretty significant. If you took all the cities and towns in the State of New Hampshire, I don't know if we'd be number one, but we'd probably be in the top three or four. There's just no doubt about it in my mind. That brings us to what is next. Change is constant, progress is planned. I think we've done a lot of great things. I don't think the City gets the recognition that it deserves when it comes to energy work or being sustainable. It is just kind of a rhetorical question that needs to be probably answered by this committee and the Board of Mayor and Aldermen, and that is where do we go from here. We could do a lot of projects. We could probably partner with somebody who could do that PV project on the landfill if we did the qualified energy conservation bonds. Are we going to make any money on it? Are we going to save any money? We'll probably have a meager return on investment, maybe in the 5 to 10% range, which is still pretty good, but how do we really want to be seen by the rest of the state on how does that impact the City, the City's operating budget, the global economy, and those types of things. Those aren't questions that I can answer; I'll leave those up to the committee. That's basically it for the report. I did hand out other information that I'll just go through very quickly with you and tell you what it is. The quarterly

energy reports, basically there are three reports that start on page 11 that are the same thing. One is for the entire City and the School District, and then when you skip to page 24, that's just for the municipal buildings and how that shapes out. That's basically the same information, and then on page 29 is how it shapes out for the school buildings. On page 34, it talks about those energy star ratings. One thing that's really been an interesting part of this journey for me, when you look at some of our buildings that have high energy star ratings, they are buildings that were built in the 1800s. You have Bakersville that got 85 out of 100, you have the Central High School complex at 92; that tells us that we're in the top 8%, that school is in the top 8% of all the schools across the country. Highland Goffs Falls, Hillside will be able to be recognized, Southside, Memorial High is at a 90, that puts us in the top 10%, McDonough is in the top 12%, we have a couple of other ones trailing right behind that. Page 36 is the projects that we have completed to date, and then page 43, that starts a list of projects that we just are not going to get to because we don't have the funding right now, but that might be something that we want to take advantage of relative to the qualified energy conservation bonds and those types of things. That's all I have to say. If anybody has any questions, I'd be glad to answer them.

Alderman Shea stated I just have a question regarding the new municipal complex. What would you anticipate that the savings might be in combining the present Police Department with that complex, just briefly, because I know that your presentation was very enlightening.

Mr. O'Maley replied thank you. I'm going to go kind of go back in my memory here, and my memory is not that good anymore, but I think when we looked at that when we were first starting the buildings, I don't think there is any net savings to the City for that. I think we tripled square footage and the utility bill is going to be about the same. So we did include a lot of energy conservation measures and

equipment in the municipal complex. I think the net affect of that is going to be about the same when you look at the significant increase in square footage we had.

Alderman Shea stated right, and that would refer to the Highway Department structure too.

Mr. O'Maley replied it would be the Highway Department, the shops building, the fleet maintenance garage, and the police station. Those things collectively together, I think, we tripled the square footage that we had previously.

Alderman Shea asked so in essence the coverage would be triple but the cost would be about the same as it had been before when the structure wasn't built and they were using other facilities?

Mr. O'Maley replied this number isn't correct, I'll just use it to maybe clarify the example. If we were spending a half million dollars between the Highway Department and Police, it's still going to be a half million dollars roughly today, but we've got three times the area that we did before.

Alderman Shea stated thank you.

Chairman Corriveau asked Jeff, do you have anything you'd like to add?

Mr. Myrdek replied just that we're going to be completing our projects we hope by June. Our contract will be up by the end of June. So we're being pretty aggressive now in completing some lighting projects, completing some building envelope projects, some refrigeration projects, things are moving along very well. We're going to have an Earth Day contest in the middle schools and we're really excited about that. So with the support of the city clerk and others we hope maybe we can maybe post the final winners from each school here. This is all part of a program

that Kevin had come up with to develop a mascot that we can use on the website to kind of entice the students of Manchester to think more and more about energy. So this is part of our awareness campaign and that will be going on. There will be a press release with some information on that, and we are pretty excited about that. We just want to finalize all of the buildings and try to get stuff squared away. We'll be working with the teachers and administration on a summer shutdown for the schools. We've been more successful each year in reaching out to the principals by asking is everything shut off in the schools that we can, so that during the summer we're saving energy. I think the schools are using more now than they ever have been in the past due to City Year and other programs, but if the school is in use, fine, but if the school is not in use, let's get the ventilation systems and the lights out.

Chairman Corriveau stated I just want to tell you both that I am just, especially in the School District, seeing the savings we're realizing there, almost a million dollars in just a few short years, not to mention apparently their recycling efforts too. It sounds like you guys have really done a great job moving them forward into this new green world. Kevin, I do have another question for you. Pages 37 to 41, the potential energy projects going forward, for these potential projects going forward in the schools, you have projected final costs of \$765,000. I'm sorry I'm on page 41.

Mr. O'Maley stated I think these got numbered a little differently as I was going through it. That's okay. According to my chart I'm at about \$618,000.

Chairman Corriveau stated okay. Do you also have a 3.4 year simple payback?

Mr. O'Maley replied if you go to the far right column. Is that what you were looking at?

Chairman Corriveau replied yes.

Mr. O'Maley replied I'd have to go back and check this to make sure. Maybe Jeff knows. That's for all of the projects.

Mr. Myrdek stated right. The thing you have to consider, alderman, is with this list that there are items that are on that list that have not been fully estimated, cost, and their savings haven't been fully calculated. This list comes from two components. The original list of projects when Aramark did the audit across the City, ranged somewhere around 150 projects. So we have completed many of those. As I've worked with the City and been around and we've had our weekly meetings, we've added projects, or we have added the idea of a project. Many of these projects are going to require further engineering and further analysis. Kevin wanted a list that when Aramark's contract is up that they can look at, so it's kind of an idea list. Some of them have some estimated savings, some of them have some estimated costs, some of them are fully complete, they are developed across with both cost and savings. So the idea would be to look through that list and as you're setting up ideas of priorities, to try to scrutinize that list. We have sort of gone after all of the energy programs basically from the best payback. It's kind of referred to as the low-hanging fruit in the industry, so if you have a payback under five years, you get those projects done, and then you work on the six-year, seven-year, eight-year. So a lot of the projects that are there have a longer payback. The other side is that there are a lot of other benefits that you can draw. We're doing work with lighting that may not have an immediate payback but it increases the educational environment of the students so these are things that you have to consider when you do a project. It's not just always about payback.

Chairman Corriveau interjected sorry to interrupt you, Jeff. It's a question I often get. Whether it is the schools in particular, it sounds like that's where most of our energy work is being done, or on the municipal side, what do we, for the lack of a

better word, what does the City do in terms of LED lighting. We hear so much about it, these 50, 60% savings on lighting costs. Where are we with that?

Mr. Myrdek replied actually Manchester is one of the first, and the credit goes to Kevin and his team, one of the first people to employ LED lighting. When the central parking garage was done over, that is LED lighting. We actually bring people in from the surrounding areas to look at that as a forefront in LED lighting. Since that time, the City's done some small projects at McDonough. If you want to see an example of LED lighting, I recommend the central parking garage, and if you want to go in the Carpenter library and go in the stairwell, there are about 30 screw-in LED lamps there, and then in the next week, the famous rotunda is also going to have LED lamps in it. So we are employing the LED technology. I have to caution people, it's an application-specific retrofit, so you really need to understand it and right now the cost of LED, just like fluorescent lighting was, the more advanced fluorescent lighting was five or ten years ago, the cost is still pretty high, so the paybacks are longer, but you can put in lamps that burn 50,000 to 60,000 hours, so there is a maintenance component to that that by going around and re-lamping where you can with LED, you're not going to go back as often.

Mr. O'Maley added philosophically in the Facilities Division we don't like to be an early adopter to this new technology. For one it is expensive, and two it is not tried and true. I mean there were a lot of issues with the color rendition and those types of things, but we did try it at the central garage, we had some wall packs at McDonough, but in the three years since I've been here, that technology has improved substantially, they've done a lot better job with the color, so we would embrace it a lot more today than we did three years ago certainly.

Chairman Corriveau stated Kevin, another question I had. In terms of the total energy savings you mentioned, and I know in the Mayor's budget he has street lighting as a separate line item, and I think that's a very good development. Is

street lighting included in our...I don't know, Your Honor, if you want to speak on that.

Mayor Gatsas stated thank you, Mr. Chairman. I think that Kevin has done a great job with the report. I've read it. Those systems have been instituted and put in place for the last two years, it was a driving factor when I came in here that we had to find ways to reduce costs, look for some free dollars that we could find to implement those programs. I went to the State, found some money there, I know that I have a call into the counties right now to see if we can some more of that \$4 million that's been distributed to the counties because they may not be using it. So we're looking to step up and pick up those dollars. Every time it is free, that's a good word, and I certainly look for every free one we can find. I can tell you that I pulled out the street lighting out of the Highway Department budget because it was unfair to ask that department, when we look for a 1 or 2% reduction in their costs, that we're hitting contractual items on their line items that they can't reduce. There's no way the Highway Department can reduce their lighting costs by 1% because it just can't be done. So that's why I pulled it out so that it wouldn't affect their budgets when we were looking for reductions of costs in their line items, and I've working with PSNH along with Mr. Clougherty in the last two years to see if we can't get that number down and get it down significantly.

Chairman Corriveau stated one of the issues I've been exploring a little bit is street lighting, and it appears as though we now spend more on street lighting than snow removal. Tim, is that now right?

Mayor Gatsas stated that's true. But unless you want to turn off the street lights, you don't have many choices.

Chairman Corriveau stated right. I don't know; maybe at our next committee hearing maybe get a report from you Tim on some of our City's street lighting

issues. I'm not talking about shutting off lights or anything, but have a budget. I agree with you, Your Honor, and I applaud you for removing that from their budget. I think it's an issue that we should begin exploring, this committee, your office and PSNH, and see what we can do to bring those costs a little more under control. When I spoke with PSNH, we're very unique, where we use more in street lighting by far than any of their other towns.

Mayor Gatsas stated there's a reason why.

Chairman Corriveau responded exactly.

Alderman Shea stated just on that subject. Do they use certain types of lighting that obviously would require additional cost to the City? Is there some type of lighting...?

Mr. O'Maley stated Tim spends a lot of time on this. When you talk about street lighting, he's got a lot more expertise and understanding of that than I do.

Alderman Shea stated I know that one community turned off the lights. I think it was Franklin. I'm not sure if they put them back on. Tim, is there some sort of lighting situation whereby they're using a certain amount of voltage that could somehow, not to take away any kind of lighting, because obviously I think there was something done when Mayor Shaw was in office, that kind of changed some of that. Again, could you elaborate just quickly?

Mr. Tim Clougherty, Deputy Public Works Director, replied I'd be happy to, alderman. The way the City currently pays for street lights is under the EOL or Energy Efficient Outdoor Lighting Tariff that's recognized by the PUC or Public Utilities Commission, and that tariff recognizes the exact type of lights that we can use and what we're billed on a monthly basis for each of those different types of

lights, and those technologies are prescriptive through the tariff and the PUC. Some of the more efficient types of technologies, like you just heard from Mr. Myrdek and Mr. O'Maley regarding LED, right now PSNH is being encouraged to explore the use of those, but as you also heard it hasn't been totally perfected. So right now we're not allowed to use those under the tariff, but I'm sure that those at the State PSNH are looking into those so we can take advantage of them in the future.

Alderman Shea stated thank you.

Chairman Corriveau asked Tim would you mind, for this committee's next meeting in a month, maybe drafting a brief report on street lighting, the issues about the tariff, how the costs have grown, what they are now, where they might be projected to be? I think it is an important issue particularly now that it is budget season that we at least start a dialogue, and there may not be a heck of a lot we can do about it, but really exploring whatever options there are. It pains me a little bit to see the great work Kevin and Jeff have done, especially in the schools, a million dollars in savings in energy consumption to the schools is amazing, but if that's being partially offset by what we're spending on street lighting and growing every year, I think that's another issue we have to begin to tackle.

Mr. Clougherty stated I'd be happy to put some of those facts together. With the mayor's support we've testified in front of the PUC relative to the tariff.

Mayor Gatsas stated Mr. Chairman, the direct savings of the school side is kept on their side, they are the beneficiary of the savings, so we hit the increase on our side, so it goes up on our side, so we've got to first make it up on our side, but the School District actually sees those line items and saving those dollars in their budget.

Chairman Corriveau stated Kevin, Jeff and Tim, thank you all very much.  
Excellent work. Look forward to seeing you soon.

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

A True Record. Attest.

A handwritten signature in black ink, appearing to read "Matthew Normand". The signature is written in a cursive style with a long, sweeping underline.

Clerk of Committee