

Acton Green Advisory Board
Minutes of April 28, 2009 Meeting
Senior Center Lunchroom

Members present: Kate Crosby (co-chair), Chris Schaffner (co-chair), Mary Smith, Eric Hudson, Terry Lindgren, John Ravis, Carol Holley (clerk). Guest: Dean Charter, Municipal Properties Director.

Minutes of the prior meeting, while on the agenda, were put off until the next meeting. Ms Crosby noted that the GAB had met with JD Head, Mr. Charter's counterpart for the schools. She asked Mr. Charter, if you had money, what would you do? What problems need to be addressed?

Mr. Charter gave some background. He has been with the municipal government since 1980; right now he is in charge of two work crews, a grounds crew that maintains lands other than recreation land, and acts as the tree department, and the building maintenance crew. The Cemetery Dept. is distinct and managed by Tom Tidman, along with Natural Resources and Recreation. These were once all under Municipal properties but were split. Mr. Charter is in charge of municipal buildings, public grounds, road shoulders. Crews are often combined for work on larger projects. Mr. Charter noted that he also serves as project manager for any new construction/renovations. He ran the renovation of Town Hall, the Memorial Library renovation and expansion, and Public Safety facility projects, and everything else that is "vertical construction". He handles paperwork and shepherds the project through – the Public Safety Facility effort took nine years. He also makes decisions about buildings that impact operations, noting that he is also subject to political factors that impact his operations. He is also in charge of the phone budget for the town and pays all the utility bills and runs the street lighting program.

Mr. Charter shared the Selectmen's Arbor Day Proclamation with the group, noting that this is a requirement to be a Tree City once again. A program will take place in a couple of weeks with a tree planting on Meeting House Hill. A flowering horse chestnut will be planted with scouts in attendance, at a small ceremony. Mr. Charter noted that there was no funding for tree planting in his budget for the last twenty years, but CPA funds for plantings were approved at this year's Town Meeting, restoring \$10,000 for tree planting in historic districts. Next year's Arbor Day will be something more elaborate. There had been a roadside tree planting program in effect from 1939-1980.

Mr. Charter brought with him spreadsheets that go back a couple of years that address electricity consumption for municipal buildings. Mr. Schaffner asked for data of costs and kilowatt hours. Mr. Charter noted his figures are broken down by town building and are mainly used as a budgeting tool. What gets confusing is that NStar bills for delivery but Constellation New Energy is the energy supplier. On the natural gas side, National Grid delivers but the product is supplied by Direct Energy. Vendors can change from year to year.

Mr. Lingren was more interested in how much energy was used; Mr. Charter stated that information is also in the spreadsheets in terms of kilowatt hours and therms.

Mr. Schaffner noted that one of the things the GAB thinks it can be able to do is look at building by building and use benchmarks to see how our buildings rank compared to average, etc. Mr. Schaffner noted the buildings on the list and observed that Windsor Green was missing. Mr. Charter noted that Windsor Green and other developments were not his but the Acton Housing Authority's. Mr. Charter noted he is also in charge of security lights, street lights and traffic signals. Bills for the transfer station, however, are part of an enterprise fund and he doesn't handle those in the municipal budget. Energy usage in the transfer station is more fuel than heat or electricity. Mr. Schaffner noted that there is also a need to think about energy usage in vehicles.

Regarding vehicles, Mr. Charter noted that they have recently switched to LED lights for strobes and hazard lights. These low-energy-consumption lights have allowed crews to turn vehicles off because the lights don't drain the batteries; vehicles previously had to be fitted with extra-heavy-duty alternators. Plowing at low speed with flashers and plow controls had been a load on the vehicles.

Ms Crosby asked whom they should contact regarding the transfer station. Mr. Charter noted that Bruce Stamski should be asked, and he will probably direct the query to Russ Robinson of the Highway Dept. Mr. Charter will forward soft copies of his spreadsheets to the GAB. He noted that he had received assistance from the Department of Energy Resources, who did some quick and dirty benchmarking. Their categories and the usage of municipal buildings didn't always line up. Mr. Charter noted that he had been looking into going with an energy consultant about a year and a half to two years ago. People who reviewed the matter, including Town counsel, felt that the consumption levels weren't high enough to warrant this. The Town and Schools were considered separately.

Mr. Schaffner asked about square footage numbers of buildings, which Mr. Charter said he did have, but not with him. The Memorial Library is the largest building. Mr. Charter noted that his figures were gross square footage as obtained from Assessor records, and that figure needed to be reduced because some areas, like attics and cellars, might not be used. Mr. Charter will forward these numbers to the GAB. Mr. Lindgren asked about square versus cubic footage; Ms Smith noted that square footage is the number used to determine carbon footprint. Mr. Schaffner noted that when you think about what drives the energy consumption, lighting and activities of people, square footage is what is used. Volume does affect heat.

Mr. Charter said he will get the GAB all the requested information and was sure it would generate questions. He noted that the Memorial Library uses 526 kWh; \$106,000 was used last year. Mr. Charter noted that the library electricity usage is high because of the town's computer configuration.

Mr. Lindberg asked if Mr. Charter had looked into any alternative energy systems. Mr. Charter noted the computers generate a lot of heat during the winter. When they put in the new generator they talked to installers about using heat for the building. That company felt that, since what was there works, don't mess with it. Computers were installed close to ten years after the building was constructed. When Town Hall was renovated, we were only going to have one computer in town hall in a closet. This was 25 years ago. Upgrading computers is a continuous process, along with the infrastructure. Everybody has had a computer at town hall for about ten years. There was a huge upgrade when we went into the Public Safety Facility.

Ms Smith asked, what do you use to cool the room? Mr. Charter stated that Public Safety has a dedicated unit, but he wasn't sure what was in the library – a split system, unsure of manufacturer. Mr. Schaffner noted that you can also control humidity.

Ms Crosby asked if the computers also served the schools. Mr. Charter replied that technology was out of his area of expertise. Ms Crosby noted that the hotdog stand photovoltaic data goes into the library. Mr. Lindgren noted that the schools have their own separate servers but things are threaded through the library. Mr. Charter noted that everything is tied together through fiber optics and suggested people contact Mark Hald.

Ms Smith asked if NStar had given any help or guidance with energy efficiency money. Mr. Charter said the town has had good luck with them. There have been two sets of retrofits with NStar – compact fluorescents in most of the buildings and LEDs in exit lights. Typically, NStar has been very generous – 80% of the last retrofit. There have been legislative changes in bidding rules that have helped; we used to run into procurement issues. The legislation has changed so that you can use NStar vendors that might not be paid prevailing wage. Ms Smith asked if NStar had looked into the computer rooms; Mr. Charter replied they have not. We did get a \$40,000 rebate for exceeding standards for lighting controls, occupancy sensors and variable drivers. We have just completed the street light retrofit and got about a \$26,000 rebate in the form of an account credit for that. Right now all the mercury vapor lights have been changed to halide and we are using less electricity. We are still trying to get them to change their bills, because they are still charging for the old lights. They don't meter street lights. NStar didn't do the retrofit. NStar used to own the fixtures but Acton bought them, as many communities have. We were paying too much and getting bad service – this happened about ten years ago. Littleton Electric maintains the systems for us and we pay them for that. The power is bought from Constellation and delivered over the wires owned by NStar. NStar generates the bill. We are saving kilowatt hours but we aren't saving cash. The bills still say 631 mercury vapor; they've been wrong for a few months. Mr. Lindgren asked what the delta was; Mr. Charter said about \$25,000/year. Mr. Schaffner asked about energy usage for street lighting versus buildings. The budget for this year, per Mr. Charter, is street lights \$131,000, and about \$30,000 goes for maintaining them and energy costs are about \$100,000.

Mr. Hudson asked if anyone has analyzed energy expenditures and generated pie charts, etc. Mr. Charter said it's never been done methodically; he and his secretary, Andrea, have done some informal stuff. It's all dollar driven – kilowatt hours or therms.

Ms Smith asked if the town heated with gas; Mr. Charter replied almost all buildings. Town hall converted last July. A couple of small buildings – 468 Main St. is still on oil. Forest Road is natural gas and waste oil heats the garage – the oil is dumped off at the transfer station and from town vehicle maintenance. A couple of buildings at cemetery are on oil. Woodlawn Chapel is on oil. The Morrison house has oil but it's not being heated. Most of our generators are diesel, but there are a few natural gas ones. Fire stations one and two both have natural gas 15 kW generators. The DPW has natural gas. Mr. Charter prefers diesel because natural gas is a problem in certain natural disasters. Diesel generators are “exercised” weekly, but the diesel fuel can get old. The generator at the DPW used to be on the library; there are always trade-offs.

Mr. Hudson asked if there were any plans for new buildings or closing maturing old buildings. Mr. Charter noted a long term plan was to build a fire station in N. Acton and once that building was up, apparatus would be moved out and older stations retrofitted, but that didn't happen. There has been a preliminary look at a new Senior Center, a \$7 million building on Quarry Rd. – but that's on the shelf until the economy comes around. The DPW is almost 40 years old and needs renovation, not necessarily from an energy point of view – but there's no budget.

Mr. Lindgren asked if anything has happened with the capital plan. Mr. Charter noted that every department does a 5-year plan. Funding for Municipal Properties – that 5-year plan would take 15 years to fund. Sometimes you get smaller projects. Over the last 3-4 years, the bay doors on fire station have been replaced, and we save energy and money because of the new doors.

Mr. Lindgren noted there doesn't seem to be a lot of concern about footprint. Mr. Schaffer noted that first we need to understand what the footprint is, consider fuel efficiency, and the financial return of future actions; initial energy improvements can be very cost effective but getting from better to best could be a small increment at a higher cost. Some tasks are amenable to hybrid vehicles.

Mr. Charter noted that some of the other things besides street lights have been insulation and windows. This winter Town Hall got new insulation in the attic – the old batting was too narrow for the spaces, leaving 4” gaps between each set of joists. It has been upgraded to properly sized, 9” foil backed fiberglass. Mr. Charter would like CPA funding for historic restoration of Town hall windows and installation of wooden storms to replace the aluminum. Ms Smith noted that could trigger a 60% rebate for energy savings. Mr. Charter discussed window replacement in the West Acton library – some were from the 1840's – they were rehabbed with wooden storms on top, resulting in historic preservation and energy savings. He discussed another project on Windsor Ave. for rehabbing a town building that did not make the cut for the warrant.

Mr. Charter reported that he is continuing the process of tightening up building envelopes; it's done when money is available. Thermostats and timers are always being tweaked to get savings. There have been a number of issues with HVAC at the Public Safety building; after a couple of years, we now think we have turned the corner there, maybe not in terms of energy savings but comfort level has been improved. There was a \$10,000 upgrade in the system. Mr. Schaffner asked if that building had been commissioned, and Mr. Charter replied that the process had been awful – funding had been cut for furnishings, commissioning and security cameras and the HVAC contractor was bad. The \$10,000 had to come from the Municipal Properties operating budget, which contains building related contingency funds.

Mr. Hudson asked when buildings were redone. Mr. Charter replied that the library was in 96 and town hall 86 – but not the entire building.

Mr. Schaffner asked about experience with renewable energy – solar hot water for fire houses maybe? Mr. Charter said they were looking at doing it for the fire stations and there had been a lot of discussion on that. They have also been talking about photovoltaics – a really big solar array on the DPW building.

Ms Smith would like information – kilowatts and hours are good. Rate would be good. Utility rate – it is business or residential? Mr. Charter will get information together to share with the group. The group thanked Mr. Charter , and he left.

Mr. Schaffner noted he had been trying to create some kind of chart about energy consumption. He had some up with:

- Buildings, school and municipal
- Housing authority
- Technology infrastructure
- Transfer station – highway department
- Street lighting
- Vehicles – schools – buses and maintenance
- Highway Dept. vehicles
- Other town vehicles (inspectional)

Mr. Hudson would like to find funding for an intern to work on consolidating and presenting information – maybe Green Communities funding would work for this. Mr. Ravis would like to see the correspondence from ESCOs to the town.

Strategy discussion – where do we go from here? Next Thursday our meeting is dedicated to the Green Communities presentation. Mr. Schaffner would like a meeting where we don't have a guest so we can figure out what to do; Mr. Lindgren felt we needed an organizational structure.

Do we meet in May? Mid June? What about over the summer? Ms Smith noted that it didn't sound to here like there is anything behavioral going on, consideration for greenhouse gas impact – how do we get people to include that in their thinking, apart from budget considerations? She noted that Green Communities and Global Warming Acts incent towns.

Future meetings: May 15, June 9, 6 p.m., room to be determined.

Mr. Schaffner moved to adjourn; there were multiple seconds. Adjourned at 9:05 p.m.

Respectfully submitted,

Carol Holley