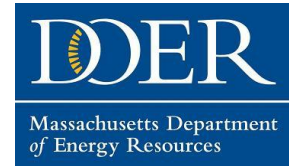




2016-2018 EFFICIENCY PLAN – MUNICIPAL CONSIDERATIONS



Consolidated Responses by Topic

REQUEST FOR INFORMATION

DOER's Green Communities Division sought input from municipalities and other public entities on services they wish to be included in the 2016-2018 three-year efficiency plans. DOER is providing the feedback solicited through this request to inform discussions with the EEAC and the PAs. Below are the consolidated responses received by DOER, ordered by the topic of the information received with the responder indicated in parentheses. Note that these comments do not represent the full text of comments, but are quoted sections chosen for brevity and organization by topic.

SUMMARY

In general, municipal comments have supported the topics and discussion that have already ensued at the C&I workshops in regards to energy efficiency services for the municipal and public sector. This includes issues such as:

- Sector-specific issues: common barriers, communication and website clarity.
- Increasing comprehensive programs through:
 - continuous commissioning,
 - additional training programs such as building operator certification,
 - pay for performance programs,
 - behavioral programs, and
 - pursuing deeper energy savings through performance contracting.
- Fuel switching
- LED street lighting

In addition, municipalities are keenly interested in engaging their residents and using their role as trusted sources of information to provide outreach to both their residents and businesses under Community-Based Efficiency Outreach Programs such as the Main Street program for businesses. Finally, municipalities had comments on the water-energy nexus and the statewide database and suggestions for the DOER programs and processes.

Municipal Sector-Specific Services

- The Town of Leverett has utilized the rebate program available through the utilities several times for energy efficiency programs on town buildings and we strongly support the continuation of such programs. Technology is increasing lighting efficiency so quickly that that program is very beneficial for municipalities. We also have utilized the program to upgrade the variable speed drives on our school's HVAC system. Other programs where that would reduce the town's and state's carbon footprint would be rebate assistance for the installation of ... electric hot water heaters and insulation in buildings with electric heat. Leverett hopes that the program will be continued. (Marjorie McGinnis, Town of Leverett)
- In those four years the City of Melrose has received over \$700,000 in both electric and gas incentive funds on a variety of projects. National Grid is the gas and electric utility provider for Melrose. In my experience, the electric incentive process at National Grid is far superior and easier to navigate than the gas side. I wish they would institute the same paperwork and approval process for both based on the electric incentive process. (Martha Grover, City of Melrose)
- Every purchase that looks at efficiency versus doing more of the same. Why should each municipality or regional school district do the same basic analysis when DOER (or PAs (inserted)) could provide general data analysis and a framework for discussion and further analysis as needed? (Identical comment submitted by both Rene Wood, Town of Sheffield, and H. Dennis Sears, Southern Berkshire Regional School District)
- Provide a cost benefit analysis ... that looks at efficiency versus status quo or doing more of the same. (Massachusetts Municipal Association)
- The On-Bill Repayments program has proven to be a popular mechanism to finance energy efficiency upgrades, but is offered only for electric measures with a 2-year payback or less. Utilities should explore the modification of the On-Bill Repayments criteria to allow measures with longer paybacks, and consider providing On-Bill Repayments for gas-based energy efficiency measures as well. (Metropolitan Area Planning Council)
- We have had an excellent experience with our public build retrofits, working with National Grid and Columbia Gas, and our Green Community Coordinator. We have also met with many people at DOER, Leading by Example, Mass CEC to evaluate new initiatives. We have found that it is much easier and quicker with National Grid specifically to use a project expeditor to help us with our incentive applications. As far as ideas for future incentives, we wish that more incentives were available for windows and doors. We have run several window projects through as custom applications but they did not trigger an incentive since the payback was too long. Given the useful life of some of the things being replaced, perhaps the payback should be allowed to be longer. All in all we have, however, felt very fortunate to take advantage of these "free" dollars. (Janet Nicosia, Andover)
- The incentive part of our recent Performance Contract project went very smoothly. The ESCO provided the National Grid technical analyst with the project information they needed in order to calculate the incentive which was enhanced due to the comprehensive nature of the project. It represented about 14% of the overall project cost. (Martha Grover, City of Melrose)
- Anything that may be done to reduce the cost of doing anything in the municipality, such as retrofits or introducing new technology, such as a set aside from prevailing wage requirements if the project is under a set dollar value, or encouraging a certain percentage of the awarded contract to employ local

labor/business, where possible, will help move these projects forward. Also, what you can do to make available programs more well known, in effect marketed to the municipalities would be greatly appreciated. (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)

- Local municipalities often look for opportunities to reduce energy costs and are frequently approached by companies who try to sell them related products (e.g. electrical aggregation, etc.). There is often a resource and technical expertise limitation at the local level as so many projects are cutting-edge, experimental and/or technologically advanced. One suggestion is to provide an “Energy Manager on-call” hotline to assist local municipalities with answering introductory questions with regards to assessment of feasibility of certain projects and investigating if a presented opportunity is worth considering, someone who can connect to resources, direct and advise on whether a technical expert needs to be hired, etc. (An equivalent of the State Ethics Commission’s “Attorney of the Day.”) (City of Worcester)
- Signatures are crucial on Mass Save applications, and only the top signature is required in the beginning; signature below it is required later; to approve of the work
 - Good customer contact info is also crucial, and cell phone numbers are best whenever possible, as well as email addresses
 - Federal Tax ID (usually via W-9 Copy) is imperative for incentive payment
 - Accurate account number is always required
 - These items are mentioned again because they are commonly omitted; even one omission will stall the application (William Isaksen, National Grid)
- You are spot on with the importance of letting the utility know about New Construction projects early. One existing problem may be different definitions of "early". "Early" to National Grid means before the finalization of Construction Documents, and well before the decision to purchase of any electric or gas equipment. Without proper notice, National Grid is extremely limited in its influence upon the ultimate efficiency of the building. Architects and designers must have this fact stressed to them early and often to reap real EE benefits. (William Isaksen, National Grid)
- Reaching ideal Regional School district contacts remains a significant challenge. I would think that they would report to very similar bodies as the other middle and high schools in the state, through which these contacts could be identified. If some form of formal "roll call" could be done, I believe a solid listing of decision makers among regional schools could be compiled quickly. (William Isaksen, National Grid)
- If more opportunities can be identified to spread the word of existing success stories, it may be one of the most convincing tactics toward other municipalities. Get on the radio, into the newspapers & newsletters and at conventions. (William Isaksen, National Grid)
- Also feel there is still a lot of trepidation on how to begin and persistent belief that there is no or not enough help. This just isn't true and the fears are often unwarranted. (William Isaksen, National Grid)

Barriers to Energy Efficiency

- The biggest barriers to improving energy efficiency in municipal buildings are funding, financing and the high cost/low payback. Allowing municipal access to the accelerated energy program, or creating a similar municipal initiative, would greatly expand the reach and effectiveness of Green Communities programmatic goals and strengthen the state-local partnership to protect the environment and promote smart energy use. (Massachusetts Municipal Association)

DOER Responses by Topic for Municipal Request for Information Regarding 2016-2018 Energy Efficiency Plans

- We propose that the \$100,000 cap be increased when financial accountability can be demonstrated (e.g. payback within 5 years) and the work is done by a pre-screened PA. A \$1.1M energy project (with a 2-year payback) at a major city-owned facility has been unable to proceed due to procurement requirements associated with both NGRID qualifications and DCAM qualifications (adopted by the City) severely limiting the vendor pool. (City of Worcester)
- This [ability to work directly with utility vendors for projects less than \$100,000 without going out to bid] has been extremely helpful. What possibility is there to boost the \$100,000.00 bidding ceiling? Is this in itself a possible barrier? I don't know. It's a nice round number but could it at least be adjusted for inflation? (William Isaksen, National Grid)
- Despite generous utility incentives, it remains difficult to find the funding to do whole building switches (from T8 lighting)in the larger buildings, such as schools. DOER working with the utilities to figure out a way to do T-8 LED replacement bulbs_would be fantastic. (Susan McPhee, Town of Winchester & City of Woburn)
- We do perceive all of the above mentioned issues as barriers (funding, time, technical knowledge). (City of Worcester)
- Increasing technology is a real barrier to energy efficiency. iPad carts, laptops, charging stations, smart boards, Apple TV's, and most of these things are installed in upgrades without energy calculations or efficiency measures like plug load controls. The other major barrier is simply breaking the behavior rituals and habits; educating the users enough so that they will be willing to change their view. Increased usage, hotter summers and the call for increased air flow and air conditioning, in previously unconditioned spaces is a barrier. Air quality has improved. Comfort has improved. Libraries are opening more hours. Services have increased. Municipal building usage has exploded with a full time employee required to schedule, coordinate and bill all the outside users. We serve the public and are committed to serve our citizens of all abilities, from the disabled and special needs to the gifted. This requires environmental controls and technology. Perhaps these are challenges more than barriers. There are really no hard barriers I can think of that education and funding cannot break through. (Janet Nicosia, Andover)
- Besides money issues most towns have, awareness and understanding why these EE upgrades make sense on several levels is an apparent barrier. I often see a big disparity between what municipal decision makers believe is available and what is truly available, and it is the same with a true understanding of the ultimate benefits. In general, knowing WHY something is worth doing helps it stick in peoples' minds. Just being told it is good sounds more like an opinion, and is not as convincing. (William Isaksen, National Grid)

Website

- The Mass Save website is always referenced by utility liaisons as the go-to resource for incentive information, yet it does not have a clear 'municipal' section with contact information for the respective utilities. Including this information will ensure that the Mass Save website can function more effectively as a centralized incentive and program clearinghouse across the residential, commercial, and municipal sectors. (Metropolitan Area Planning Council)
- We were not familiar with several of programs listed here so it would be helpful to have a Mass Save website section dedicated to municipal incentives and descriptions. The entire Mass Save website can

benefit from reworking and redesigning (it does not always have the depth needed to explain certain incentives and how they interact with one another). Additionally, Mass Save reps should be better trained - they seem to be reading from the script and not able to trouble-shoot well. (City of Worcester)

- Public Building New Construction – This is our goal, to bring in the utilities much sooner in the design process and we strive to do this. It is unfortunate that many projects are given budgets for construction without much thought to adding efficiency to reduce long term operating costs. This is a battle energy managers have to fight. “Value Engineering” can truly be the enemy when what is valued out is often energy efficiency – the last thing that should be cut. Stretch code is a good tool to keep projects in line and architects will build to code. (Janet Nicosia, Andover)

Vendors

- Guardian Energy, a National Grid expeditor, has become part of our energy team. They do not drive the process but knowing they will be with us over time helps us design projects together with a continuity and a history. This has been an excellent relationship, where we have all gained knowledge and focus. This process is extremely effective. Especially helpful is the relationship that the expeditor has with the utility and their ability to secure incentives effectively. Our only complaint is that the \$100,000 limit should be raised. (Janet Nicosia, Andover)
- I'm not certain that all of the vendors that have been selected as PA vendors are as qualified in all aspects of energy efficiency as they should be. Some have a certain level of project management experience that they bring to the table, while others either have no experience or do not contribute that experience to the project. Unfortunately the mark up for the vendors negotiated with the utility companies is the same regardless of project management experience or value of project management experience that is received by the municipalities. As well, some vendors have minimal experience, basically lighting upgrades and others have a much wider and broader knowledge base of energy efficiency projects. The utilities should in no way have any interest in a particular vendor working with a particular municipality. (Ruthy Bennett, Towns of Arlington and Bedford)

Continuous Commissioning and Pay for Performance

- Pay for Performance - This program offers an important avenue for incentivizing behavioral and operational strategies in schools and municipal facilities. The next 3 year plan presents the opportunity to grow the support offered for these programs, both in per-kWh incentive and also in length of measure life recognized. This can provide a critical scaffolding through which these programs can become established and create a track record of success. (Kate Crosby, Acton-Boxborough Regional School District)
- The pay for performance utility program seems not to be well utilized and often discouraged from being utilized. This is unfortunate as many new projects that have not been vetted by multiple users and vendors don't get a chance to receive rebates and some of these projects are very high quality projects that can go a long way in helping to manage equipment to a high standard of efficiency. The utilities could be more open to finding ways to monitor new concepts of lowering energy consumption besides the standard investment in new equipment. (Ruthy Bennett, Towns of Arlington and Bedford)

Comprehensive Efficiency Programs

- The Mass Save efficiency programs are often used by municipalities (working through the utilities/PA's programs via use of their "municipal vendors" for the direct installation of energy saving equipment) to execute short payback or "low-hanging fruit" projects. While such use of Mass Save programs reduces energy usage by the targeted equipment (typically lighting and control systems), these savings are not leveraged to support the longer payback measures in comprehensive retrofit projects (e.g., HVAC upgrades and building envelope improvements).

As a result, achieving "all cost effective savings" in these municipal buildings will be much more difficult, because the municipality will have to implement additional projects that incorporate the long-payback measures, the costs of which cannot be repaid from savings (as with a comprehensive performance contract) because the municipality, in all likelihood, will have already spent the savings from the short-payback project, not banked it for application to the subsequent long-payback projects.

NAESCO suggests that the solution to this problem is to re-align the incentives for the Mass Save program so they support the long-term goals of the Commonwealth to achieve all cost-effective savings from each home or building, whether through performance contracting or another approach. Our perception is that the Mass Save programs are rewarded for achieving annual savings targets, so they naturally focus on quick payback projects with relatively high rebate/incentive levels that are easy to sell and implement. Re-focusing the Mass Save programs to leverage the rebates/incentives to support comprehensive performance contracting projects will require some program re-design. NAESCO and its member ESCOs will be happy to participate in collaborative re-design effort with DOER, the EEAC, the utilities/PAs and other stakeholders. (National Association of Energy Services Companies)

Behavioral

- Behavioral strategies for energy conservation should receive robust support within school districts. They can be highly successful (see my research [published by USGBC here](#)) and yield significant benefits in cost savings, lowered GHG emissions and learning & leadership opportunities for students. They are also remarkably accessible for school districts as there is no capital investment required. Most importantly, growing a culture of conservation within our schools is a critical leverage point in shifting the culture of the state as a whole and raising a generation of Massachusetts citizens for whom energy conservation is the norm. (Kate Crosby, Acton-Boxborough Regional School District)

The most critical service needed for behavioral & operational programs is vigorous support for the development of evaluation frameworks specific to behavioral strategies & outcomes. These strategies are beginning to show promise, but cannot achieve their full potential without an evaluation framework that allows us to truly understand what is achieved and how one implementation compares to another. Two important white papers from ACEEE document the success of behavioral strategies and also make a compelling case for the need to develop a robust evaluation framework (Kate Crosby, Acton-Boxborough Regional School District):

- Greening Work Styles: An Analysis of Energy Behavior Programs in the Workplace by Shui Bin ([link here](#))
- ACEEE Field Guide to Utility-Run Behavior Programs by Susan Mazur-Stommen ([link here](#))

DOER Responses by Topic for Municipal Request for Information Regarding 2016-2018 Energy Efficiency Plans

- Here at Acton Boxborough Regional School District we are true believers in the carbon footprint reduction results that can be obtained by running a sound Behavioral and Operational Program. We are aware that the conversation has begun with the utilities in this area but we would like to make sure that it stays on the front burner. (JD Head, Acton-Boxborough Regional School District)
- It would be helpful if MA DOER [Mass Save] would develop case studies on the topic [behavioral and operational programs] to show the potential as well as the issues with instituting these types of programs. As stated below, we were not aware of this program being offered to municipalities, so better promotion is important as well. (City of Worcester)

Training

- Certified Energy Manager training only comes to the area about once per year and is expensive. A lower cost option would be welcome. BOC training that focused on energy and was offered at various levels (from custodian to technician) would be excellent. Also what I find is that as an energy manager I am educating myself about mechanical systems but I could use some more mechanical system training, sort of “building systems for financial managers.” (Janet Nicosia, Town of Andover)
- I think that supporting a CEM training course would be a very good idea for energy professionals with the required skills or knowledge to aid them in managing their equipment and learning along with other professionals in a focused venue how to manage buildings, equipment and facilities in an energy efficient manner. (Ruthy Bennett, Towns of Arlington and Bedford)
- As far as I know, no one from Melrose has attended any of the no-cost BOC trainings offered by our PA, but I think that such training would significantly improve the efficiency of our building operations. In order to encourage our facilities staff to attend these trainings, including any expanded offerings such as Certified Energy Manager training, we need more information about what is covered and who should attend. (Martha Grover, City of Melrose)
- Building Operator training would be awesome! Especially if it included some sharing by the facilities guys, encouraging them to share ideas about saving energy, for example scheduling tips; set back recommendations; tricks to install LEDs more efficiently; tips about sealing and its effectiveness. (Susan McPhee, Town of Winchester & City of Woburn)
- Often times the new energy efficient systems are not properly maintained and therefore do not perform as well as predicted, losing some of its efficiency benefits. One suggestion is to include initial system maintenance (e.g. first 3 years) in the grants/incentives package, which would oblige the recipients to implement and sustain the system maintenance schedule and to properly train the employees. (City of Worcester)
- BOC & CEM Training boost awareness universally by introducing the how and why to the who and what. Boosts awareness which further boosts performance. (William Isaksen, National Grid)

Fuel Switching

- It is hard to build the cost analysis between new technologies and existing technologies, particularly with regard to ongoing use and maintenance costs. If the state were to prepare this - say for the new pellet stoves vs. oil vs. natural gas vs. propane, it would have greater credibility and remove a hurdle

from each municipality or regional school district considering this technology. (We are undergoing this issue right now at our regional school district.) (Identical comment submitted by both Rene Wood, Town of Sheffield, and H. Dennis Sears, Southern Berkshire Regional School District)

LED Street Lighting

- Municipally-Owned Street Lights

- More information on how to fairly split the costs and benefits from retrofitting utility-owned LED streetlights would be of considerable interest. Some communities have had bad experiences dealing with utility companies regarding the purchase and /or retrofitting of streetlights.

For instance, National Grid attempted to charge the Town of Shirley of \$126.10 to disconnect a streetlight and another \$126.10 to reconnect the light fixture with the new LED Streetlight. Even though the work was to be done by a private electrician, paid by the town. Before the community even purchased the lights and fixtures the community was to pay National Grid \$254.20 per fixture, making it economically impossible to pursue and incredibly simple efficiency. This issue was eventually resolved at considerable cost to the community. Utilities should be held accountable for attempting to take advantage municipalities simply try to lower energy costs. (Massachusetts Municipal Association)

- Metropolitan Area Planning Council has helped close to 20 Massachusetts communities with the process of retrofitting their streetlights with LEDs through our regional procurement program. One of the challenges that communities face with the street light buy-back process is the lack of consistency with how long the utilities take to provide an informal or formal price quote. Standardizing the response timeframes for such quotes is a critical component that will allow municipalities to plan these complex projects with a higher level of certainty. (Metropolitan Area Planning Council)
- Melrose has begun the process to retrofit our streetlights to LED and as I talk to the handful of other National Grid municipalities who have sought and received incentives, the application of the incentives appear to be inconsistent and not transparent with some getting as much as \$0.62/kWh saved and others just \$0.25/kWh saved. It should be consistent and transparent so we can plan and budget for our project accordingly. (Martha Grover, City of Melrose)
- Sheffield looked at this several years ago and found it extremely hard to navigate through the options as there appeared to be no incentive for the company which sold us the streetlights to help us find a vendor who could retrofit with LEDs as the original company did not provide this. I'm sure it has changed but again, small towns, and likely most municipalities, do not have the staff or time to chase all of this down. (Rene Wood, Town of Sheffield)
- I believe the MAPC has a good handle on this endeavor, and many projects are anticipated in 2015 with their help. (William Isaksen, National Grid)

- Utility-Owned Street Lights

- The process of buying back streetlights can be daunting; municipalities would therefore welcome the option of a utility-initiated street light retrofit. The development of such a program should certainly involve incentivizing any utility for undertaking an LED retrofit. Additional

- considerations should include the municipality's role in initiating such a retrofit; and a payment structure that fairly compensates the utility for undertaking the retrofit, while passing any additional tariff savings on to the municipality. (Metropolitan Area Planning Council)
- Street Lighting – Financial analysis of the cost and frequency of repair for LED utility owned lights and the kWh usage should be their [the electric utility] burden. It seems that their delay serves to get as many municipalities as possible to purchase their own lights, expecting they will still save over the utility rates. The up-side is that this has spurred competition in the maintenance market, however on the down-side some municipalities have had to increase staff to cover the added asset maintenance since low bidding often does not result in reliable contractors. (Janet Nicosia, Andover)

Water-Energy Nexus

- In addition to the current grant and incentives programs, the Commonwealth needs to increase funding and incentives to promote both water conservation and energy efficiency at plants. By providing funding to repair aging infrastructure, energy consumption could be dramatically reduced by not having to treat and pump the additional water needed or introduced into the system. (Massachusetts Municipal Association)
- Water and Wastewater seem to be on board throughout the state, > as long as they are aware of the benefits. Broad awareness is being addressed with the help of the DEP, but awareness should also be coupled with a fuller understanding of the benefits; people may have their own ideas of what is (now) available based on old information and there is so much more available now. The nature of a plant's function may also keep it isolated from day to day; I believe proactive outreach is the key to getting to every facility, while stressing the efficiency as well as financial benefits. (William Isaksen, National Grid)
- Public Water Systems in Massachusetts have to meet strict standards relative to the percentage of Unaccounted for Water (UAW) allowed in their system. In basic terms, UAW is the difference between the water that is pumped and distributed/billed to consumers. MassDEP requires systems with Water Management Act permits to keep their UAW below 10%. Fixing aging infrastructure and reducing UAW may help control energy costs, as it will reduce overall pumping and treatment. On the wastewater side, Inflow and Infiltration is a concern that wastewater systems need to address. In Massachusetts it is estimated that there is a \$20.4 billion shortfall between available funding and the funding needed to improve our drinking water and wastewater infrastructure over the next 20 years. The Commonwealth needs to increase funding and incentives to allow water systems to fix leaking pipes which will lead to increased energy efficiency by allowing reduced pumping and treatment. (Massachusetts Water Works Association)
- Massachusetts Water Works Association would like to suggest the Green Communities Program look at creation of a zero interest loan program for homeowner water service replacement. Mass Save offers a heat loan program through a number of participating banks where homeowners can get a seven-year, zero interest loan for energy efficient improvements. A similar program should be considered for water service replacement which would help homeowners with service leaks who cannot afford to pay a contractor for a new service. Such a loan program might help expedite service repairs/replacements which is beneficial not only to the homeowner, but also to the water supplier in reducing their UAW and their energy consumption. (Massachusetts Water Works Association)

- The link between water consumption and energy use is often highlighted in energy audits. Water conserving fixtures help save energy costs for the homeowner, and as we indicated above, reduced pumping will help save energy at treatment facilities. (Massachusetts Water Works Association)

Community-Wide Outreach

- One of Metropolitan Area Planning Council's core roles is to assist our municipalities with the development and implementation of energy visions, goals, and plans. We have experienced continued success in collaborating with these communities – via their municipal energy staff as well as their energy committees – to conduct community-based outreach for state and utility energy programs. Residents and businesses also respond more favorably to utility initiatives that are supported by their city or town government. Utilities should take the opportunity to leverage the outreach expertise of energy committees and regional planning agencies across the state in order to achieve mutual energy reduction goals. (Metropolitan Area Planning Council)
- One of the challenges that our communities have faced when liaising with utilities to conduct energy efficiency outreach is the lack of collaboration and overlap between a utility's gas and electric operations. While we understand that they represent separate business units, there is a significant burden on communities to coordinate a comprehensive energy outreach program when having to deal with two sets of utility program managers, program processes, and timelines. Metropolitan Area Planning Council recently helped the City of Melrose with a very successful Main Streets and Small Business program implementation via National Grid Electric. Over 60 businesses signed up for energy audits through outreach conducted by the Melrose Energy Commission; however, many of them had questions and concerns regarding gas measures that could not be addressed by the auditors via the electric program. Metropolitan Area Planning Council initiated conversations with National Grid to propose a joint electric-gas program in order to capture the missed opportunity, but were told that the programs are fundamentally different. Utilities should take advantage of the effective and proven outreach efforts of communities to promote both gas and electric initiatives whenever possible. (Metropolitan Area Planning Council)
- Community-Based Efficiency Outreach Programs – The City and the volunteer Melrose Energy Commission have successfully worked together on several community outreach programs including residential and business energy efficiency as well as promoting the adoption of solar PV for both segments. In order to inform future outreach efforts and know what the impacts are we would like to receive an aggregated report from Mass Save on a quarterly basis within 45 days of the end of the quarter broken down by residential and commercial accounts, indicating the Home Performance Contractor or Expediter who did the energy assessments and follow up work. A sample report from our Home Performance Contractor partner Next Step Living is attached. (Martha Grover, City of Melrose)
- In our opinion, there is a need for building energy scoring as part of the regular Home Energy Assessment visit in order to educate homeowners about energy performance of their properties (pre-installation score) and incentivize energy efficiency work (via projected score). The ability to do that exists already (refer to "Home MPG" pilot for 4 communities in the Central Mass – a HomeMPG software add-on exists as part of the CSG software package). (City of Worcester)
- It would help to develop case studies that not only quantify economic benefits of energy efficiency work, but also ancillary benefits – e.g. better comfort, improved productivity, etc. (City of Worcester)

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- There is a need for increased incentives for pre-weatherization barriers. Knob-and-tube electrical wiring is common and is expensive to remediate and is a major barrier to insulation work. (City of Worcester)
- There is a need to work on better communication between Mass Save and WCAC (serving low income eligible individuals) and education of Mass Save reps. Often Mass Save reps forward a customer to WCAC without making customers aware that they are being transferred to a different entity altogether. (City of Worcester)
- There should be better training of Mass Save reps who seem to be reading from a script and are not able to advise on unusual cases (e.g. with regards to incentives eligibility) or refer one to their superiors when an uncommon question is being asked. (City of Worcester)
- From Ellie Kastanopolous, Montague:

I have two requests for consideration:

- A designated source of resources that municipalities can tap into in order to do residential energy efficiency outreach
- A set aside of additional resources for the low income programs for municipalities whose poverty level is greater than 10%

For the last four years I have been working I have been working on residential outreach projects in three Franklin County towns (Greenfield, Sunderland and Wendell). The first three years of work were in Greenfield and funded by the EPA's Climate Showcase Communities Grant. We tried numerous types of outreach activities and found that door-to-door canvassing was by far the most effective at engaging our residents. This past fall I have worked with the Sunderland Energy Committee to begin a canvassing project that has been immensely effective so far partly because our local HPC, Coop Power, allowed us to book audits at the door. In less than two months we knocked on more than 800 doors and had conversations with more than 400 residents. 114 residents scheduled Coop Power energy audits at the time of the conversation and another 117 residents promised to call for an audit just as soon as their schedules allowed. 94 residents felt that their homes were already well-weatherized. This work was funded by a small grant from the New England Grassroots Environmental Fund (NEGEF) and will continue with the use of \$3,000 worth of Sunderland's Green Communities Grant. Wendell is poised to begin canvassing just as soon as this miserable winter's weather breaks and will also use a portion of their Green Communities Grant to fund this work.

I have talked with the energy committees of more than a dozen Franklin County towns and all have expressed a strong interest in working with their residents to increase participation in the Mass Save program. It has been very powerful to talk to residents about Mass Save as a representative of the town and therefore not connected with any service provider. We offer help if they run into problems. Based on our experiences, many of the people who have not yet taken advantage of Mass Save are aware of the program and mean to call but never get around to it. They have questions that they need answered before taking the step. Meeting with them in person and explaining how it all works addresses most of these issues. Being able to book their energy audit right in the moment of the conversation seemed to make all the difference for many.

Up to this point, we have cobbled together the work with lots of volunteer time and some access to Green Community Grant funds and a \$1,000 grant from NEGEF. These funds have only been available to the towns that are still using their initial implementation grants. There are towns who have been awarded competitive grants but it is my understanding that they can't apply for community outreach funds until they have met their 20% goal. Is it possible to loosen up this requirement so that interested towns could implement a program such as this?

Community Action, our low income Mass Save provider, does not have access to enough funds. The waiting lists for services are brutal. The PAs deliver only the minimum required amount of funding – 10%. Seven of the larger towns in Franklin County, containing more than half of Franklin County's population, have poverty levels above 10% (ranging from 12% to almost 18%). If you were to count the number of people who earn less than 60% of median income (which is the cut-off for the low-income program) then the percentages would be a great deal higher. I understand the need to come up with a state-wide average number, but it becomes really problematic for a poor county like Franklin County. Couldn't the State set aside a reserve fund for the low-income program that a low-income provider could apply for when they have exhausted all of the PA funding? Maybe from the RGGI funds?

I have spent a great deal of time trying to talk my PA into putting more money into this and they respond with the very corporate perspective that they feel that they are already giving low income people a big break with the 30% rate discount and that they are not paying as much into the program through the surcharge. They also feel that the people who do pay deserve priority. While this is a very understandable business perspective, I believe that we need to expect more from our government. There are many low-income families struggling to pay winter heating costs of \$2,000 to \$5,000 even with the help of fuel assistance.

The waiting lists at Community Action have also hindered our outreach work to landlords. I talked more than 30 landlords into weatherizing their properties but they lose interest in the long, long wait for their tenants to hit the top of the waiting lists for Community Action services. I have tried to argue with my PA that many of the middle-income people that I have talked with have said that their reason for NOT applying to Mass Save was that they didn't want to take away from someone who might need it more. We desperately need your help on this issue.

Over the last four years I have had a front-row seat to the many ways that the Mass Save program has expanded and improved. What you have accomplished is awe-inspiring and the envy of my colleagues in every other state. I truly do know this. I just want us to KEEP improving.....

Statewide Database

- MAPC recently worked with legislators to develop and file a bill (Senate Docket #530 or House Docket #2976) which will give cities and towns access to aggregate- and census tract-level annual energy usage for the previous five years and 15-minute peak demand data from the previous year. Under the bill, utilities regulated by the DPU would be required to acknowledge receipt of requests within five business days and provide the requested data within 21 business days. MAPC strongly supports DPU's ruling regarding Mass Save program metrics and energy usage data reporting requirements. Since our communities expend significant effort to implement energy initiatives, timely energy usage and program performance data is incredibly important for them to more effectively understand where they have succeeded and how they can improve. Communities currently rely on individual vendors for this data. We recommend providing all Massachusetts communities with an aggregated quarterly report from Mass Save that includes program participation, savings, and benefits data for all measures across multiple sectors. The report should also include the names of the contractors or expeditors responsible for the work. The report should be made available to communities within 45 days of the end of a quarter. (Metropolitan Area Planning Council)

DOER Services through Green Communities Division and Green Communities Program

This section provides consolidated feedback on services provided through the Department of Energy Resources rather than through the energy efficiency three year plans.

Grant Programs & Processes

- DOER No-Cost Products – Excellent program! We have taken advantage of this probably every year. Here the vendors are also your best advertising, and our relationship with them strengthens. (Janet Nicosia, Town of Andover)
- Communities would also appreciate a lead-time on application as well a simple application process. Many smaller municipalities simply do not have the staff in place – as much larger, metropolitan or wealthier municipalities. (Massachusetts Municipal Association)
- More continuity between applicants, engineers, vendors and utility personnel needs to be provided to the applicant. The engineer, who is typically involved in the design process, needs to have access to more information and guidance on both the incentivized products and the resulting application process. (Massachusetts Municipal Association)
- I do not know if there is a carve out or a tiered structure in any of these programs for rural or smaller (under 3500 or 5000 population) communities but that would help target some money to them specifically, as municipalities this size usually differ in resources available to complete grant applications, let alone full time staff. Also the longer the lead time on an application as well as the simpler it can be and still get what the granting agency needs is something to strive for. Many municipalities, particularly smaller populated ones, do not have the level or number of staff in place as do larger, metropolitan or wealthier municipalities. (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)
- Sheffield looked at this [LED Street lights] several years ago and found it extremely hard to navigate through the options as there appeared to be no incentive for the company which sold us the streetlights to help us find a vendor who could retrofit with LEDs as the original company did not provide this. I'm sure it has changed but again, small towns, and likely most municipalities, do not have the staff or time to chase all of this down. (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)
- As someone who will be looking at moving our Town to adopt the Green Communities Act, making the list and benefits of the programs you make available to such communities known in your materials would greatly help and be appreciated as part of the Green Communities Act marketing materials, if not already included. (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)
- While I have no experience with these contracts, I do recall several years ago when we got a grant to do certain efficiency upgrades under another program, the administration and contract reporting requirements were so onerous we were prepared to turn the grant down. We found our RPA would do the grant administration and paper work and they lost money on doing so. Contracts and administrative reporting must be easy to do, straightforward and not assume a staff to spend large amounts of time on this. The paperwork must match the amount of the grant, with smaller grants being more of a challenge. I recognize the need for accountability and insist on that as a taxpayer; it just needs to be balanced. (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)

New Construction

- Working with MSBA on new schools, there are two major opportunities we are missing:
 - LEED Silver is incentivized with an additional 2% contribution toward the project from MSBA
 - According to SMMA, our architects for Winchester High, there is only one school that has been built that does not meet LEED silver.
 - LEED Gold is not incentivized.
 - Municipalities have no incentive to stretch past silver
 - Building technologies have advanced so that LEED Silver is pretty easily attainable
 - LEED Gold should have additional reimbursement attached and School Building Committees would work much harder to build more efficient buildings. (Susan McPhee, Town of Winchester and City of Woburn)
- MSBA takes away a fraction of every Utility Incentive awarded for Energy Efficiency.
 - The percentage of reimbursement (subtraction) is based on the wealth of the town.
 - As a result the poorer communities have more money taken away from them and so have less incentive to build energy efficient buildings.
 - Example: Winchester has no air conditioned gyms; Woburn has many air conditioned gyms.
 - Over all, MSBA is dis-incenting the incentive.
 - MSBA should not be allowed to take back the utility incentives earned by the municipalities, so that the incentives can do their job and encourage more energy efficient buildings. (Susan McPhee, Town of Winchester and City of Woburn)
- Please make sure municipal and regional school buildings eligible to participate in these programs include buildings such as highway garages, bus barns, accessory storage and others. The days for us of building buildings which are [not] in the absolutely necessity category are past. (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)

Training & Staffing

- I have really enjoyed all the recent webinars as they allow me to only block of an hour and hear from the experts without traveling. Keep those coming! (Janet Nicosia, Town of Andover)
- It would be highly beneficial to target funding for energy manager positions that are integrated within school districts. Municipal energy managers are certainly valuable, but having an energy manager integrated within a school district who is adept at talking "school" will facilitate the adoption of behavioral strategies as well as mechanical & lighting measures, and will increase the speed and success of growing a culture of conservation in the schools. It can often be difficult for a municipal energy manager to make much headway within the schools due to the multitude of competing pressures. A manager embedded within the school district as a member of the staff there will be able to achieve much greater success with energy conservation & efficiency projects. (Kate Crosby, Acton-Boxborough Regional School District)

Clean Energy

- The more we know the more we will look for ways to use clean energy. Electric vehicles, as an example, will save energy but are much more expensive to purchase and our mechanics are not trained in how to fix them. If a program incentivized electric vehicles plus offered training for our mechanics that would

ease the worry of changing to electric vehicles. Similarly, if more municipal training was offered on the maintenance and operations of renewable energy we would feel more comfortable installing it. (Janet Nicosia, Town of Andover)

- It is hard to build the cost analysis between new technologies and existing technologies, particularly with regard to ongoing use and maintenance costs. Green Communities Division should provide a cost benefit analysis of fuels/ new technologies. The same may be said for every purchase that looks at efficiency versus status quo or doing more of the same. DOER could provide general data analysis and a framework for discussion and further analysis as needed. (Massachusetts Municipal Association)
- The following is an excerpt from the Town of Sheffield Board of Selectmen's letter to Mr. Bram Claeys, Deputy Director, Renewable and Alternative Energy Development, Massachusetts Department of Energy Resources which was sent on 2/23/15:

Re: Municipal and Regional School District "Carve Out" Provision in renewable thermal CMRs

The Commonwealth Acts of 2014 changed the Alternative Energy Portfolio Standard by making renewable thermal energy more attractive and affordable and in the process strengthened the Commonwealth's sustainable forest management industry.

The Southern Berkshire Regional School District respectfully requests the corresponding CMRs be structured to increase the payback to the Commonwealth by reducing the investment costs incurred by municipal and regional school districts wishing to invest in these renewable thermal technologies.

In 12/16/2014 DOER design document of the proposed CMRs for Renewable Thermal Technologies in the Alternative Portfolio Standard, it appears that most, if not all, municipalities and regional school districts wishing to implement renewable thermal technologies would be classified as "large", i.e., greater than 340 kBtu/h. This would not allow them to "mint" 10 years of Alternative Energy Credits upfront to reduce the project development cost, as currently proposed for "small" projects. Instead they would have to engage third party aggregators, thus reducing their amount of the credits.

As such, we respectively propose a "carve out" be added to the proposed CMRs to allow municipal and regional school districts to use the "small" system "minting" process to obtain 10 years Alternative Energy Credits upfront and require them to retain all other responsibilities for "large" systems described in the proposed CMRs. We further recommend this carve out be limited to projects used only for heating municipal and regional school district buildings.

This proposed change in the draft CMRs would significantly reduce taxpayers' cost for supporting clean energy replacements to municipal and regional school district heating plants, encourage the deployment of such thermal energy technologies, and support the Commonwealth's renewable energy goals. In the case of our regional school district, Southern Berkshire Regional School District, this amount could be as great as \$400,000 – a very significant amount to our taxpayers.

Supporting this "carve out" for municipalities and regional school districts addresses this item and doing so would strongly encourage the adoption of this technology. Likewise we are grateful for the Sapphire Grant you have offered. (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)

- It is hard to build the cost analysis between new technologies and existing technologies, particularly with regard to ongoing use and maintenance costs. If the state were to prepare this - say for the new pellet stoves vs. oil vs. natural gas vs. propane, it would have greater credibility and remove a hurdle from each municipality or regional school district considering this technology. (We are undergoing this issue right now at our regional school district.) If this information is available, my comments fall into the general comments of making its availability more well known – even if the municipality is not a Green Community. The same may be said for every purchase that looks at efficiency versus doing more of the same. Why should each municipality or regional school district do the same basic analysis when DOER could provide general data analysis and a framework for discussion and further analysis as needed? (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)

Vehicles

- We are highly interested in adding electric school busses to our fleet. I know DOER has been working to roll out a program, and we encourage this strongly - we eagerly await an opportunity to try this new technology for our busses. (Kate Crosby, Acton-Boxborough Regional School District)
- Thank you for taking the time to allow us to offer input into possible future efficiency policy and procedures. There are two items that I would like to toss into the ring that were listed on your original request for input. In the area of Regional School Districts I would like to see consideration given to Regional School Districts in the area of school bus purchasing. As you are probably aware the Commonwealth offers incentives for School Districts to regionalize by offering transportation reimbursement for operational cost related to regional school district regular education operations. I mention that to bring to light the fact that there is already existing precedent in place for helping regional districts in this area. The incentive that I think would be helpful would be in the area of rebates related to purchasing school buses (<http://www.thomasbus.com/bus-models/green-buses/>). Perhaps consideration could be given to offset the price of the bus or assistance in the construction of fueling stations. (J.D. Head, Acton-Boxborough Regional School District)

Community-Based Clean Energy Outreach Programs

- Andover participated in Solarize Mass program with almost 100 homes installing solar. This was an excellent program. (Janet Nicosia, Town of Andover)
- There are towns who have been awarded competitive grants but it is my understanding that they can't apply for community outreach funds until they have met their 20% goal. Is it possible to loosen up this requirement so that interested towns could implement a program such as this? (Ellie Kastanopolous, Town of Montague)

Water and Wastewater Treatment

- Water and Wastewater Treatment Facilities – Overall we have had a good response through our utility and working with our Green Community Coordinator Joanne Bissetta, in helping us identify energy projects and secure incentives. Our Coordinator was very helpful answering questions about possible grants and incentives. This year we were awarded a Community Clean Energy Resiliency Initiative Technical Assistance Grant. Unfortunately this grant would only consider clean energy solutions. We had an excellent possible resiliency solution but because it utilized natural gas vs. a renewable energy, it could not be considered. Other states in the US did not limit solutions to those using renewable energy,

and in those states, our solution could have been funded. Massachusetts should reconsider the limitations put on the Resiliency Initiative. (Janet Nicosia, Town of Andover)

- In addition to the current grant and incentives programs, the Commonwealth needs to increase funding and incentives to promote both water conservation and energy efficiency at plants. By providing funding to repair aging infrastructure, energy consumption could be dramatically reduced by not having to treat and pump the additional water needed or introduced into the system. Similarly, Green Communities Program should support water conservation programs to reduce energy consumption and support water audits and/or retrofits for water-intensive/energy intensive commercial/industrial users. Finally, much like the stretch code incentive for energy use in the home, Green Communities might consider a stretch code for water efficiency or LEED certification for water. (Massachusetts Municipal Association)
- Mass DOER, MassDEP and the US Environmental Protection Agency have done a great job providing tools, information and funding to water and wastewater utilities to evaluate and implement energy efficiency opportunities. It has been estimated that 35-40% of a treatment facility's operating budget involves the purchase of energy to treat drinking water or wastewater. Allowing for retrofits that improve efficiency and renewable energy options can help reduce a plant's operating budget. We would encourage Mass DOER to keep funding, incentives and technical assistance for energy efficiency at drinking water and wastewater plants a priority in the next three-year plan. This may include, but not be limited to: free audits of facilities; upgrades or retrofits of pumps, blower and drives; grants for the installation of solar arrays or other renewable energy measures; access to zero percent loans for energy efficient upgrades. (Massachusetts Water Works Association)
- Public Water Systems in Massachusetts have to meet strict standards relative to the percentage of Unaccounted for Water (UAW) allowed in their system. In basic terms, UAW is the difference between the water that is pumped and distributed/billed to consumers. MassDEP requires systems with Water Management Act permits to keep their UAW below 10%. Fixing aging infrastructure and reducing UAW may help control energy costs, as it will reduce overall pumping and treatment. On the wastewater side, Inflow and Infiltration is a concern that wastewater systems need to address. In Massachusetts it is estimated that there is a \$20.4 billion shortfall between available funding and the funding needed to improve our drinking water and wastewater infrastructure over the next 20 years. The Commonwealth needs to increase funding and incentives to allow water systems to fix leaking pipes which will lead to increased energy efficiency by allowing reduced pumping and treatment. (Massachusetts Water Works Association)
- MWWA would like to suggest the Green Communities Program look at creation of a zero interest loan program for homeowner water service replacement. Mass Save offers a heat loan program through a number of participating banks where homeowners can get a seven-year, zero interest loan for energy efficient improvements. A similar program should be considered for water service replacement which would help homeowners with service leaks who cannot afford to pay a contractor for a new service. Such a loan program might help expedite service repairs/replacements which is beneficial not only to the homeowner, but also to the water supplier in reducing their UAW and their energy consumption. (Massachusetts Water Works Association)
- The link between water consumption and energy use is often highlighted in energy audits. Water conserving fixtures help save energy costs for the homeowner, and as we indicated above, reduced pumping will help save energy at treatment facilities. We request the Green Communities Program consider additional incentives or credits for communities who have implemented water conservation

programs. The Green Communities Program could support water audits and/or retrofits for water-intensive commercial/industrial entities (looking at such things as cooling water towers). We also suggest that the Green Communities Program could work with other entities in the Commonwealth (Plumbing Board, Board of Building Regulations and Standards, Water Resources Commission) to evaluate the plumbing code to ensure that it requires the most water efficient fixtures for new construction or building retrofits. (Massachusetts Water Works Association)

- The Town of Sheffield does not have a municipal water or wastewater facility. We do however have a private water company, the Sheffield Water Company, which provides water to over 500 residences and businesses. It would be extremely helpful, if when such a company is the only option and no municipal water company is planned, for such a private water company to be able to participate in such programs. (Rene Wood, Town of Sheffield, and R. Dennis Sears, Southern Berkshire Regional School District)