CLASS 5 Energy

April 2, 2014

Webinar Transcript

cullbridge

Tools of Change

Landmark Designation

The program described in this case study was designated in 2013.

Designation as a Landmark (best practice) case study through our peer selection process recognizes programs and social marketing approaches considered to be among the most successful in the world. They are nominated through an open nomination process and by our peer-selection panels and Tools of Change staff, and then scored by the selection panels based on impact, innovation, replicability and adaptability.

The panel that designated this program consisted of:

- Jon Connor, Federation of Canadian Municipalities
- Arien Korteland, BC Hydro
- Doug McKenzie-Mohr, McKenzie-Mohr Associates
- Edward Vine of Lawrence Berkeley National Laboratories

This transcript covers a webinar held on Wednesday, April 2, 2014. Additional materials about this program can be found at: http://toolsofchange.com/en/case-studies/detail/674.

Introduction by Jay Kassirer

This is the first of our two landmark energy conservation case studies that were selected this year, based on individual and overall impact, innovation, replicability to other locations, and adaptability of the approach to other behaviors. Our peer selection panel was particularly impressed by CLASS 5 Energy's long-term continuous improvement approach; it's not just a one-time program or a limited term effort. When they go in they usually work with their clients over a number of years. Replicability already has been demonstrated with 700 buildings and they have an interesting use of an alumni club in order to retain and continue engaging members that have completed the program. It's also a comprehensive approach that combines education, training, behaviour change, goal setting with progress tracking, and social media. With that, I'll introduce today's two speakers, Amy Anderson and Karen Mann – starting with Amy.

Amy Anderson is CLASS 5's general manager. At CLASS 5 she's responsible for day-to-day operations and for ensuring that business goals and objectives are achieved. She has over 15 years of experience in strategic marketing communications, public relations, marketing research, reputation management, and crisis communications.

Karen Mann, our other presenter today, is the director of measurement and verification. She has over 25 years of experience in the utility, finance and energy fields. Karen is a certified measurement and verification professional, as she has recently passed the evaluation exam offered by the Association of Energy Engineers. She also holds a Bachelor of Science and a business degree from the University of Pittsburg.

Amy Anderson, General Manager, CLASS 5 Energy

I appreciate everyone joining us today and I'm looking forward to hearing your questions.

[Slide] As Jay mentioned, CLASS 5 Energy is a consulting firm. We are in White Bear Lake. For those of you who are not familiar with Minnesota that's right outside of St. Paul in the Twin Cities area. We were established in 2002 as part of a consulting engineering firm, Hallberg Engineering. We grew out of a technical background, but really do specialize in the behavioral aspects of programs – energy plan development, behavioural energy programs, utility tracking and energy efficiency resources. Our clients are in K-12 schools; that's where we started, that's our Schools for Energy Efficiency program that you'll hear more about. The other pilot we'll be talking about today is in healthcare.

We like to say that we appreciate any and all efforts to reduce energy use and cost, but we are particularly fond of the efforts that bring people into the equation.

[Slide] What is behavior-based energy efficiency? It involves energy programs that focus on changes in individual or organizational attitudes, behavior and decision-making. Prior to taking this job I'll admit that every month I got my utility bill at home, I opened it,

looked it and mused "that's higher than last month" (or lower than last month), and then I paid the bill.

Kilowatt-hours and therms [thermal units] were foreign measurement terms to me and, frankly, it just never occurred to me that my choices at home could have much of an impact on something as big as a utility company. But the fact is I could and you can, because energy is a controllable cost. Buildings don't consume energy. It's the people inside the building that consume energy. We suggest that people start by focusing on the people that are running that equipment rather than just looking at upgrades or replacing that equipment.

Behavior-based energy efficiency takes advantage of low and no cost energy savings opportunities such as managing temperature set points and light levels, turning off equipment when it's not in use, opening and closing blinds at the beginning and end of each day, getting rid of many fridges, and coffee pots and microwaves in individual classrooms or offices, and the list goes on. Using engagement, communications and measurement strategies, the goal of a behavior program is to change the culture of an organization to one in which saving energy is not something you do because you're told to, but it's something you do because you want to.

[Slide] Culture – what is culture? Here's a definition that talks about group norms of behavior and the shared values to help keep those norms in place.

Do most people at your work show up at approximately the same time every day? Do they do that because the boss has decreed it or because that's when the day starts in your organization? Do most people go out to lunch or do they eat their desks? Again, is there a rule about lunch behaviour or a common understanding of how things work and do these understandings go away when you hire new people? I'm guessing they don't. That's because people embrace the value of fitting in and so in each organization culture is created and sustained by the people who live it.

[Slide] How does that concept translate to an energy program? The truth is, changing habits or creating new, better habits is really hard. I'm sure anyone listening who has tried to lose weight, or exercise more frequently or quit smoking will agree.

It's not enough just to want the change. You actually have to make the change then repeat the change again and again and again until it becomes habit.

All of our programs follow these five steps:

1. Educating people about why saving energy is important and how they can help
2. Identifying opportunities for easy savings across the organization
3. Engaging people and asking them to do their part in the energy saving effort
4. Measuring and tracking progress toward the energy goal, and
5. Communicating and celebrating the results often and with everybody.

Following these five steps and then repeating them over the course of several months and even years allows people across the organization to buy into the idea of saving energy as well as the process for saving energy. As participation grows so do the savings.

[Slide] In addition to providing a five-step process for an organization to follow, our programs provide a structure for the overall energy saving effort. That structure includes visible and vocal support from the highest levels of the organization. It includes the person or people designated to coordinate the different aspects of the program. It includes representation from all the key areas of the organization and it includes people who are willing to both talk the talk and walk the walk to demonstrate that energy conservation is not weird or stupid, but rather a key choice in helping the organization achieve its mission and critical goals. We'll show you examples of this structure at work in a few minutes.

[Slide] Finally, our programs provide all the necessary resources and tools to make it easy for that person–that energy coordinator–to be successful. Those include prewritten templates for core communication, newsletters, emails and press releases. We all know there's nothing worse than sitting at a blank screen and trying to figure out the way to start a communication piece, so we try to make that very, very easy.

[Slide] Our resources include E-cards, energy pledges, bookmarks, shut me off stickers, letters of commendation, game shows, and quizzes - just to name a few. [Slide] They include poster campaigns designed specifically for an organization's employees, energy facts, energy guidelines and E-communications to help get the word out that energy conservation is a priority.

[Slide] Although we don't ask organizations to upgrade or change out equipment, we do provide hundreds of strategies for maximizing the efficiency of their current equipment and technology.

[Slide] In the last few years, we've added resources that make it easy for the energy coordinator to utilize the various social media channels to share both information and results.

[Slide] Finally, we have developed a comprehensive web-based utility tracking system that allows users to enter data directly from their utility bills, track their progress and share results graphically both in terms of energy use and energy cost with their key audiences. My colleague, Karen, will talk a bit more about how this tool works. I'm now going to turn it over to Karen who's going to talk about our experience with Cambridge-Isanti Schools.

Karen Mann, Director of Measurement and Verification for Schools and Energy Efficiency, CLASS 5 Energy

[Slide] Some think that the greatest motivation for saving energy is saving money, but we have found that the case for energy conservation in schools goes far beyond just the cost savings. Studies have found that a better physical environment that includes superior energy performance contributes to increased learning and productivity. This, in turn, positively affects performance and student achievement. School districts often rely on taxpayers to provide funding for the schools; this is particularly true in Minnesota. School districts that demonstrate to the taxpayers that they are being good stewards of their dollars are more often supported.

Energy conservation in schools also provides the opportunity to educate the next generation of energy consumers, and I can tell you personally it is so rewarding to see the excitement in the kids' eyes when learning about energy and how they can do their part to contribute to the greater goal. Also, I don't know of a school district that has too much money. In fact, typically it's the opposite. By saving energy, school districts can free up dollars that can be directed back into the classroom and that's really where we should be spending our money. Lastly, the idea of being green can be just as important to some as any of these other reasons. It is really more than just saving money and we find that everyone can resonate with at least a few of these reasons above.

[Slide] I'm going to talk now about our work with the Cambridge-Isanti Public Schools. I love to start with them because I really love this quote from their superintendent. He said, "If someone had told me we would realize $2.5 million savings with SEE [Schools for Energy Efficiency] I would've said it's not going to happen. Yet here we are." You can see there was a bit of initial skepticism as to how much they could really save. That goes to show that even in a smaller district like theirs, when determined to change, there is definitely big money to save.

[Slide] The towns of Cambridge and Isanti are located about an hour north of Minneapolis and St. Paul in Minnesota. They were one of our very first districts having joined the SEE program in 2004.

The district began with five schools and one administration building, but added two new school buildings in 2006 for a total square footage of about 900,000. The district serves more than 5,000 students with 742 staff members. Their initial goal was a 10% energy reduction, because they felt that that was very doable, but I'm proud to say that to date they have exceeded 38%. An interesting thing about this district is they are not content to sit at 38% and just sustain those savings; they've actually set their sights on a goal of reducing energy by 40% and they are determined to do it and I think they will.

A couple things are missing from this slide–I forgot to mention that in 2010 every single school in the Cambridge-Isanti Public School District was awarded with an ENERGY STAR® label (ENERGY STAR® certification; we just got their most recent results and we are excited to say that their cumulative energy savings have now exceeded $3 million.

[Slide] The success in the district started with the formation of their implementation team. Amy showed this slide earlier–this was actually just customizing it and personalizing it for this district and how it worked there. The superintendent, who I quoted earlier, was the first person onboard. He really believed in the program and supported it verbally and in written communications. That is really all we ask of a superintendent–just to be committed to the program and support the efforts of everyone in the district.

Next, Nancy Johnson, a newly retired 40-year employee with the district was hired as a part-time energy coordinator. Nancy is remembered for saying during her interview "I don't know energy, but, boy, do I know people." That's exactly what we were looking for and that's what has made her so successful. What Nancy lacked in technical knowledge was more than made up for by Mark Eisenbacher, their buildings and grounds director. Together, the two of them (Nancy and Mark) formed an energy steering committee.

The committee consisted of all department heads in the district such as the community education department, the kitchen, the IT department, and also had representation from principals and administration. One of the keys to success is that the superintendent empowered this committee with making all decisions around energy. Along with studying district guidelines regarding temperature set points, hours, and things like that, they were able to make departmental decisions. For instance, if they wanted to have one cold lunch a month, the kitchen department was there. They could make that decision and it would become a guideline. If they decided, for instance, to group all of their community ed activities into their most efficient school building they could make that decision at this level and make that happen.

The decisions were made and agreed on by the energy steering committee and communicated by each department head down to its respective staff. Mark filtered them down through the operations and custodial departments, Nancy Johnson took those initiatives down to the staff and the students in the buildings. The shared value and accepted behaviors around energy efficiency started at the top, moved down through the department heads, then across the district through the adults. Once that began, and as it continued year after year, the culture really started to change.

[Slide] Let's talk about the key strategies that made this district so successful. Number one, they really targeted behaviors that use less energy. The EPA estimates that up to 30% of energy in buildings is wasted so that's really what they went after. Getting students involved was also a focus there at the district. Student energy squads were organized to patrol the schools. They recognized good behaviour with WOW Post-It notes and left OOPS stickers behind where energy was being wasted. I can tell you the kids really loved busting their teacher for leaving things on. Nancy also did a tremendous job with reward and recognition in the district. Any time you're asking someone to make a change in their behavior they need to know that they're making a difference and you need to reward those changes. While Nancy didn't have the financial means to reward her staff, she came up with her own ways.

For example, she used school communications and local newspapers to publicize successes and recognize key people. One month she ran a whole article in the local newspaper about the kitchen staff and all the wonderful things the kitchen staff had done. At one particular school board meeting, she actually got all of the building operators and building custodians to attend the school board meeting and be recognized in front of the school board and also in front of the entire community, since those meetings were publicized. When you think about it, how often does a building custodian really get any recognition? Her hard work went a long way. The Energy Hog mascot made annual visits to the district and engaged the students in fun activities and assemblies.

Getting back to the custodians again, they had quarterly result meetings reviewing all of the things that they had accomplished in the district. Every custodian attended all of those meetings and they really, to this day, still vow to do better. The competition between those custodians is really fierce to this day and they really strategize and share the tips and their successes so that the other buildings can also be equally successful.

[Slide] I'd just like to wind up with a couple of results graphs so we can take a look at how their savings and their hard work transpired into energy savings. This chart shows the annual savings achieved by the district. The savings were calculated by comparing their actual energy use each year to their baseline energy use. In this case, the baseline was 2003, which was the year before joining the SEE program.

The baseline is normalized for weather, allowing for an "apple to apples" comparison over the years. In this chart we combine the natural gas and electricity into BTUs for a total energy change. You can see in year one, they had a 7% savings. They fell a little short of their 10% goal, but not for long; each year continued to escalate.

I'm going to address the question about behavior versus asset changes since we're asked that quite a bit. Are our reported savings just from behavior changes? The answer is we don't separate out behavior savings from the other things that happen in the district. However, I've personally worked with the district for nearly ten years now and for those first two years they did not do any asset upgrades in the district. They were very much focused on the design and the construction of their new buildings so we can say with certainty that the year one and two savings came from behavior changes. As the program grew, certainly other asset changes and upgrades happened, but we know that the behavior impact was significant.

During the nine years for which we have results, the district's annual cost savings have increased from year one savings of about $98,000 to year nine savings at about a half a million dollars. We're often asked how do those savings compare to the cost of the program? The return on investment in year one was 2.55; for every dollar spent they saved $2.55. Each year that rose steadily. In year nine the return was actually 76.33. When I average out all nine years of the SEE program they have energy savings of just over $3 million and their return investment is 15.15. It's quite remarkable what a small district was able to achieve.

[Slide] Now Amy will review our experience with the Ridgeview Medical Center.

Amy Anderson

In the United States, healthcare is the second most energy intensive industry after fast food, spending more than $8.5 billion annually on energy while releasing more than 30 pounds of carbon dioxide per square foot per year. In addition, energy costs in the healthcare industry appear to be on the rise, increasing 36% between 2003 and 2008. The fact is that the ability of these organizations to hold operating margins relatively steady over the long term is closely tied to their ability to control expenses and one of those big expenses is energy.

[Slide] Here's a quote from the CEO at Ridgeview Medical Center where we conducted our pilot. We always like to start with these heads of organizations because they play such a critical role in the success of it. Robert Stevens was a believer in this program even from early on. He has been personally committed to this, which definitely made a difference and definitely impacted his ability to convey that message down through the ranks. He said, "We asked employees across our hospital campus and clinics to see energy as a controllable cost and do their part to reduce consumption using the CLASS 5 Plan. Our results show that their efforts generated real savings for Ridgeview while demonstrating our commitment to environmental stewardship."

When we moved from schools to other sectors like healthcare, there was a question about whether or not this program could work in other places. This was particularly the case in a healthcare setting, which is very concerned with life and death situations on an everyday basis. We were very, very pleased to see that the efforts did generate real savings and also had some of the intangible benefits that Karen mentioned.

[Slide] How did this start? In 2010, we received a grant from the Minnesota Department of Commerce to test our comprehensive behavioral and operational energy efficiency program for the healthcare market. The goal was to create a program that could reduce energy and cost without significant financial investment. After interviewing a number of appropriate partners, Ridgeview Medical Center was selected based on previous sustainability efforts, enthusiasm for adding a behaviour component, and its diverse building mix.

Beginning that spring and running through December of 2012, CLASS 5 program consultants worked with Ridgeview's leadership and employees to implement and evaluate the program, which was modeled after our successful SEE program that Karen just talked to you about. Ridgeview Medical Center is located in Waconia, Minnesota – small town on the western side of the Twin Cities. Ridgeview has more than 1,500 employees and 13 buildings, including a 109-bed hospital, five off-site clinics, professional buildings and a hospice home.

[Slide] Here's that chart again that we've referred to now three times and you'll see some similarities between this structure and the one Karen talked about in Cambridge-Isanti. Again, there was strong support at the top. Again, a non-technical energy coordinator program consultant partnered with someone well-versed in operational efficiency.

One of the key differences I like to point out–and we'll see this again in another slide–is that on the left bottom of the slide it says "44 environmental protection agents." That was a key factor in the success of this pilot. Recognizing that no one person could physically be present in 13 buildings, our program consultant asked for volunteers from the various departments to be her eyes and ears on the ground. Forty-four people got permission from their managers and stepped forward to take on the challenge. What makes this strategy so powerful is that research has shown that when employees are asked to take on a new initiative or model a new behaviour they look two directions before they act. They look upward, toward management, and they look sideways, toward their peers. If they receive positive affirmation from both directions they are far more likely to embrace the new idea. Adding 44 energy advocates to our team made our job far easier and most certainly sped up the adoption rate of several of our key strategies.

[Slide] What were those strategies? Ridgeview held an organization-wide kickoff in every single facility. They identified, trained, and supported peer champions in every department. They created a tracking system for employee suggestions. They challenged the 24/7 mentality that exists in so much of healthcare–sometimes, clearly, because it is necessary–ERs and hospitals work on a 24/7 basis. But the reality is that clinics do not, and so they went into the clinics and some of the professional buildings and asked, "When does this equipment need to be on"? If a certain doctor is only in the clinic two days a week does the equipment he or she uses need to be on all the time? In a lot of cases the clinics just left that equipment on because they didn't ever want to be called to the carpets because it wasn't on when the doctor needed it. But we did a lot of testing about how long it takes to heat things up, to start things up, to get things ready and through that we've been able to make some significant changes that not only reduce energy costs, but also shift the mentality and get people thinking about what really does need to be left on.

Ridgeview shared stories about employee participation and overall results through multiple communication channels. They had a very robust communications department and they did a very, very good job of sharing those stories and highlighting suggestions that employees had made. They celebrated good results in ways that increased motivation and participation. One of my favorite examples of this was that one quarter, when they had saved 16%, the peer champions walked around and passed out candy and celebrated the sweet 16 that the clinics and the campus had achieved. Again, it's just a little thing, but making it so visible and making it fun was another reminder and another way to just give people pats on the back to thank them for their efforts.

Finally, they also included CLASS 5 updates and presentations in quarterly management training so that leadership throughout the organization knew that the pilot was a priority for top leadership at Ridgeview.

[Slide] Did those strategies pay off? That's always the question. Well, they did and the proof is in the data. After 15 months, Ridgeview saved more than $75,000 and reduced overall energy use by 6% across the campus without negatively affecting patient comfort or safety. This slide doesn't show it, but it is worth mentioning that some of the off-site clinics realized double-digit savings during that same 15-month period.

The pilot demonstrated that a behavioral energy program for healthcare can provide significant energy and cost savings without major financial investment. As Karen said, because we were working so closely with them we do know that there were no asset upgrades or changes during this pilot, so these savings truly can be, with confidence, attributed to the behavioural efforts that they were undertaking.

[Slide] Even more striking to us and, kind of, more affirming was the response we got at the end of the pilot, when we surveyed employees. Nearly 400 of Ridgeview's 1,500 employees responded to the survey, which asked how the program had affected their attitudes and behaviors. In a healthcare environment where people are very, very focused on patient comfort, safety and outcomes:

- 89% said that they were more likely to engage in energy saving behavior
- 83% had a more positive attitude toward saving energy
- 91% had learned that individuals can have an impact on organizational energy costs
- 94% would be willing to submit an energy saving idea to their department if they had one

We started this presentation saying that our goals are to both reduce both energy costs and to change the culture of the organizations we serve. When we see both culture shift and energy savings happening in tandem we know that we are achieving the outcome that we have hoped for, and that the organizations are taking control and gaining the tools they need to be successful in the long run.

Q&A

Q: Which changes in behaviors were most responsible for the savings?

Ms. Anderson: That is a really hard question to answer. One of the things that we say often with our clients is that this is not a program about one or two people doing a hundred things. It really is a program about a hundred people, each doing one or two things a day. This is about the drops in a bucket that collectively make up a bucket of water, as it were, in savings. Karen can maybe speak to this a little bit more. We certainly know that there are some things like temperature set points and delamping that can have significant and quick measureable energy savings. However, the longer you look–and Cambridge-Isanti has been at this for nine years–it's no longer one, or two, or three behaviors. It's the fact that everybody across that district values energy efficiency and is doing everything they can in their sphere of influence to make changes every day that will help the district save energy. That maybe sounds like a copout answer, but..

Ms. Mann: I, kind of, agree, too. Initially, there was a lot of just taking a look at everything that happened in the school buildings and really tightening things down. For instance, in the past, building custodians would typically just come in and turn everything on in the morning and leave things on till late at night. Temperature set points were set to where people felt comfortable–and we know that everybody has a different internal thermostat themselves. The really big initial savings involved tightening building operational schedules and set points.

IT behavior is another promising area. Were computers always left on? Were monitors always left on? In most cases they were, so we worked with those departments to put policies in place to shut things down when they weren't needed.

In schools your kitchen staff is also important. They were used to coming in in the mornings, turning on their ventilation, warming up their ovens, but really didn't think, "Do I need that yet?" I think it was posing the question, "do I really need to be using this energy now? And if not, "How long can I postpone turning it on?"

Q: We've run similar programs. Often we can get buy-in at one level, but not at all levels. For example, management may be onboard, but the green teams lack leadership or participation. Or a few teachers are keen, but can't get the rest of the school to participate. Can you please discuss some of the particulars around getting buy-in at all levels?

Ms. Anderson: Boy, that is a challenge, isn't it? When I go to interviews with people who are looking to buy the program, they ask, "What is your greatest challenge"? Honestly, I think the challenge is getting participation at all levels. I think that what we have developed and what we've found to work best is continual relationship-building and ongoing efforts to communicate and share and engage people at all levels. That means you do start with the highest levels in the administration, but you simultaneously are connecting with the building-level people in the different departments.

We've got a number of tools and resources that help them do that, from getting started at meetings that we set up from the very beginning. As soon as you start the program, the first couple of months really are spent with that energy coordinator going out and having one-on-one meetings with IT, and kitchen, and communications. In the schools, for instance, we spend time with the principals–just trying to explain why they're doing this in the organization. We have to dissuade any fears that it's going to become an extra initiative or an extra bit of hard work; our goal is to make it something that people can do in the course of their day, for the most part. Then trying to open up ourselves to answer more questions and be available to both help and in the implementation and provide resources to make it easy. Our goal in creating all the resources we have was that we didn't want any one person at any one organization to have to spend hours and hours and hours figuring out how to do this. We were going to give them the path and we were going to give them the tools.

If they run into challenges, we have program consultants on this end and we hope that they will call us and say, "Man, I am stuck. I cannot get this to happen." We've had hundreds of clients, so we can say, "Let's talk about that a little bit. We had this experience somewhere else. Have you tried this? Have you tried that?" We work it through together.

Ms. Mann: I would add to that, our most successful clients are the ones that have an energy efficiency coordinator (energy coordinator, as we call them), that has already earned a level of respect with peers and the administration. In the Cambridge-Isanti Schools–she had been in that district for 40 years.

We do find times where there are certain people that aren't onboard. I'm working with a district right now where the head of buildings and grounds does not, for some reason, want to be bothered with the program. What we're doing is we're going above and below him and we're forging relationships with the building operators and the custodians at the school level, trying to talk to them, make them understand what our goals are. We're finding that they are actually buying into the program, even though the head of buildings and grounds isn't. Sometime you can work around certain people.

Recognize that everybody's just not going to be onboard in the beginning. We have found that over time when you show results, peer pressure starts. The principal, who isn't onboard at this school is starting to go to administration meetings where the superintendents are reviewing results and people look at him and ask, "Why hasn't your school done something?" When the program starts to work, those initial doubters tend to come onboard, simply through peer pressure.

Q: Where did the funding come from to run these programs? Did the health region or school division pay the CLASS 5 costs or was there a state/city/federal program that helped out?

Ms. Anderson: The answer is yes on both of those. Actually, the majority–we are a for-profit company—of our clients do pay directly. One aside to that is that giving away this program is not always the best thing because if someone is just given it they don't tend to have much "skin in the game" and they don't work quite as hard as if they've actually put some money in. The school district paid us directly an annual fee for the materials and the program support. Ridgeview was given the program support and the materials because of the grant that was paying for that on the back end through CLASS 5.

Q: What we're hearing is that you invest a lot of time up-front building the relationship and that must make the initial stages of your program quite expensive in terms of hours.

Ms. Anderson: We don't charge that way. We actually have a per-building cost model that we've developed over the years. We've tried lots of different ways of parsing this out. Rather than costing more there's a greater amount of time required by the energy efficiency coordinator at the beginning to put time into those relationships and then that does back off a little bit as the program goes on in months and years, but it's not a large

upfront cost. Part of it is our goal has always been that this program pays for itself within the first year. We understand the people really care about ROIs and that they are dealing with looking at those kinds of numbers when it comes to purchasing other things or upgrading. We understood that and we really did want to make it affordable enough that the people "put a little skin in the game" and paid for it, but that they got that back in their cost savings, and hopefully more.

Q: I have a question about the actual participants themselves–the staff at the healthcare facilities … the students at the schools. What were the key barriers for them? I know you're talking about changing a lot of different behaviors, but what ended up being the key barriers for them and how did you overcome those so that they were able to make those changes? What are the big things that normally would stop them from being more energy efficient?

Ms. Anderson: When you actually ask people no one is against saving energy. There are very few people that are philosophically against doing it and yet we do find barriers in people doing it. I think there's some that feel they're being asked to do "one more thing" and so it's trying to combine this with a current initiative going on in the organization.

We're doing another pilot right now with a city and we found that there was a group of people that were very uncomfortable turning off their lights when they left to go to meetings because they didn't want people to think that they had left for the day. The culture there was that people would think, "So-and-so is leaving early. They're slacking off." It was really important that they didn't feel like they were going to be judged, so they created a little note that people could put on their doors that said, "I'm still here today, but I'm at a meeting." That was a cultural barrier that just came up in that organization. I don't believe we've ever had that before.

If we're not seeing results, part of the program involves going back and finding out what is going on because you can try to guess, but really, you would be surprised at how many different reasons that people have when things aren't working. As well, its how many solutions can be brought to the table to help go make those barriers less.

Q: If the upfront cost agreement comes first, who did you have to convince in order to get the agreement to pay and participate? Where did it start? Does someone already have to believe in it in order to get them to purchase?

Ms. Mann: We have actually come into organizations at several different levels. Initially, when the program launched we had a lot of strong relationships with the building operations departments. They were very interested in it because it supported some of the initiatives they were trying to do. But over time what we found was that we were much more successful and had long-term success when the decision was made either by the finance or business manager or the superintendent. The whole buy-in needs to come from the top; it's not a program that can just live in building operations. While we need the support from building operations–that's pretty key–it can't live there. It

needs to really move to the boardroom, to the boiler room, to the classroom and to all those different levels of the organization.

Q: Can you talk a little bit more about the 44 environmental protection agents? Why did you have them, what is it that they did and why were they needed for that organization and not necessarily for others?

Ms. Anderson: In the schools program, which was our initial program, we have site leaders or site teams, so the concept of having "eyes and ears in each building" was not new. When the program consultant at Ridgeview decided to do that across those 13 buildings there was an interest in determining how to best utilize people who were already interested, how to capitalize on the energy that already existed around energy conservation in an organization. We know from research that there's always a portion of employees that are passionate about this in their own lives and just as philosophically. It was an experiment to see if we could maximize the little army of advocates on the ground. And she was surprised–we were all surprised–at the number of people that raised their hand and said I want to help do this.

What was neat about that, I think, is that we also know that there's a lot of research that shows that people feel better about working for companies that share their values. Not only are you engaging these people in doing something that they feel strongly about personally (and that makes them great advocates in those buildings when one person from our staff or the energy coordinator can't be there all the time), but you're also building that relationship between that employee and the organization by giving them a connection that goes beyond just their day-to-day work.

They would hang awareness materials in their buildings. One of them went around at night and if she saw computer monitors or lights on she would leave a little sticker or a note, or if they were off, again, leave a piece of candy. They were the ones that administered the survey. They were the ones that would organize a lunch and learn if a group of people wanted to do one. One of the things we find–and Karen referenced this with Nancy Johnson at Cambridge–when you get someone from inside the organization as opposed to us coming in its much quicker and easier for them to tap into the cultural norms and the cultural interests of the people who work there. I think that the energy protection agents were able to have conversations with people in their building and their department that would've been harder for us to have as outsiders. It allowed us that credibility and that ability to move more quickly into areas of interest with the employees and capitalize on those energy savings.

Q: When people volunteered to be the environmental protection agents did you do any screening to select people who were natural leaders within their groups as compared to people who might've had negative relationship skills?

Ms. Anderson: We didn't have a formal screening process, but we did require that they talk with their managers and got their approval, and we did provide information to the managers about the kind of people that we thought would be good for this. It wasn't, *per*

se, that we screened them and did interviews or that kind of thing, but we did ask their managers to look at their relationships with their peers as well as time available during the day. This ETA job didn't require a lot of time, but we certainly didn't want to be taking somebody who was just looking to shuck off their work and do this instead, or was not performing up to what the manager wanted them to be performing in their current job.

We did have a little bit of that, trying to figure out the balance, and it was interesting because we have gone back and forth about whether to do it through volunteers or having the managers choose somebody. We chose to err on the side of capitalizing on the passion of the people who wanted to do it and then having a little check and balance through the managers to make sure that it was appropriate that they took on that role.

Q: If I understand you correctly you first got people to volunteer, and then you approached those managers that managed the people who volunteered, you gave them the details about who you were looking for, and asked them if they would agree to that?

Ms. Anderson: Yes, that's correct.

Q: Are there any elements an organization needs to have in place to successfully implement an energy behavior program?

Ms. Anderson: I think that there are. Over our 12 years of doing this we have realized that you really do need support from the top. If it doesn't ever get out of the facilities and grounds, or if it really is not something that the top person in that organization is willing to at least verbally support, it is very challenging. It really does need to have a designated coordinator. Programs like this just do not implement themselves. It's not like when you change out machines; you can put in a more efficient machine and the energy savings start immediately. This requires persistence and dedication and ongoing work and that requires a person who's got connections within the organization. We can be sitting back here and coaching all we want, but you need to have boots on the ground. That is a very, very critical aspect. That senior level support and the person on the ground are, at the very least, a critical part of what needs to happen for this to be successful.

Ms. Mann: I agree. It sounds a little simplistic, but you have to want to do it. We can't go in with a hard sales effort and sell this program because they really have to want to do it. They have to want to engage. We've come across people who want to put on their website that they're being green, but they don't really want to take it to that next level and, quite frankly, we don't want to work with that. We really want to see changes. We want to work with those people that are so motivated to really make the difference.

Q: You have worked on quite a number of buildings and organizations at this point. Does the size of the organization have any influence on the success that you see?

Ms. Mann: The size has some impact on the success of the organization. We have found that the bigger the district and the bigger the client–the bigger the organization–the harder it is to make those impacts because the message gets filtered from the top down to the

bottom. It just simply takes a longer time. For instance, we've had some school districts that have had a hundred schools and we've had some that have had five. We saw results sooner in the smaller organization because the changes could occur much more quickly. It does take longer in the bigger organizations and you have to look at their org chart to find the key people that will help drive success for the program.

Ms. Anderson: On the other hand, it helps if an organization spends a certain amount on energy. We've shown that the program works in smaller organizations; if the annual energy cost is $10,000-$15,000, a 10% savings is doable. However, it is harder to get people to make it a priority because the dollars are small and represent a relatively small percentage of the organization's overall budget. People need to see that their efforts are making a difference in helping their organization fulfill its mission. As Karen said if they're too big it does take longer, but there's a sweet spot. That doesn't mean that the program doesn't work in small and big organizations. It just is a little bit of a different configuration and dynamic.