Rewire Behaviour Change Program, University of Toronto

March 25, 2011

Webinar Transcript

Landmark Designation

The program described in this case study was designated in 2010.

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 both by our peer-selection panels and by Tools of Change staff, and are then scored by the selection panels based on impact, innovation, replicability and adaptability.

The panel that designated this program consisted of:

- Melissa Klein, US EPA's ENERGY STAR® Program
- Arien Kortland, BC Hydro
- Clifford Maynes, Green Communities Canada
- Stephanie Thorson, Summerhill
- Devin Causley, Federation of Canadian Municipalities
- Edward Vine, Lawrence Berkeley National Laboratories
- Dan York, ACEEE

This transcript covers a webinar held on Friday, March 25, 2011. Additional materials about this program can be found at:
http://webinars.cullbridge.com/course/view.php?id=645

Introduction by Jay Kassirer

Welcome everyone to today's webinar on the Rewire Behaviour Change Program at the University of Toronto. It's quite a good example of what you can do at a university residence.

This is one of our Landmark series. For those of you who are interested in home and building energy resources, the Tools of Change website now has a resource page for home and building energy resources. On this page, there's an introduction to the site into social marketing; there's the latest news in home and building energy resources, as well case studies, including the most recent energy-efficiency case studies. We also have other resources you might find useful if you're doing social marketing related to building and home energy.

This season we have dozens of social marketing webinars to offer to you. We have two more on home building energy, one more on sustainable transportation, and social marketing instruction and review webinars. This webinar is the third of five energy conservation case study webinars from this season.

The Landmark case studies, of which today's is one, have been recognized as among the most successful in the world. They've been rated by a peer selection panel based on impact (both individual and program-wide,) innovation, replicability to other locations or program settings, and adaptability to other topic areas.

Members of the peer selection panel that chose today's webinar, and all of the ones from this season, are listed on page two of this transcript. The panelists are from organizations across North America, NGOs and government organizations that are working to support energy-efficiency programs, as well as some people who are on the ground working in those programs.

One of the strengths of today's program is that it target college students. There aren't a lot of great examples out there with measured results, so this is a real contribution to our collection of case studies.

Rewire took a very strong toolkit approach, which allowed the same approach to be used year after year. Even though the participants, the students, are coming in new all the time, the program is run through a *peer-to-peer approach* (peers promoting to their peers). This is what we try to get happening in community-based social marketing (CBSM) programs – a very connected group of people within the residence, working with each other. There is also great use of *volunteers* and the ongoing *engagement* of graduates, to get them involved in presenting the program to others.

The panel wanted to know a little bit more about percent savings per room, and I understand that we will hear about that in today's webinar.

In terms of the overall methodology, this is a great example of the community-based social marketing approach and Stuart Chan will talk a little bit about that.

Regarding the specific tools used, you'll see *norm appeals*, *obtaining a commitment*, *prompts*, and *vivid personalized empowering communications* illustrated well in today's case study.

Stuart Chan received his honor's BA in geography and environmental studies from the University of Toronto in 2006. His interest in the interactions between human and environmental systems brought him to the Sustainability Office as a researcher for a study on barriers, recycling and Rewire. His role as sustainability coordinator has expanded to now include office funds, fundraising, outreach, and managing external special projects.

He's still involved in Rewire, supervising the implementation and setting the long-term strategic direction for the program. Outside of work, Stuart is a board member of Bikechain and spends his free time volunteering at the Disabled Sailing Association of Ontario, coaching racers and taking disabled people out on the water. Stuart is also an avid cyclist and snowboarder.

Stuart Chan, Sustainability Coordinator, University of Toronto

Welcome to this webinar for Rewire. Rewire is the University of Toronto's solution to getting students to be more energy efficient in dormitories and student residences. I've been working with the sustainability office since about 2005. My first project here was setting up the pilot project for Rewire, in my last year of undergraduate studies.

I've been more or less involved with the project and have seen it evolve from a one-month program utilizing very risqué humor, to a more mature program predicated on eye-catching visuals and heavy reliance on peer to peer to drive energy-efficiency behaviour.

I'd like to get a show of virtual thumbs-up from those in the audience who manage – or is working with someone who manages – a student residence at a university, college, or high school.

[Webinar participants responded]

And how many of you have a hard time convincing students or volunteers to do things you ask them to do?

[Webinar participants responded]

My last question before we really get going is how many of you have some training in psychology?

[Webinar participants responded]

In the next 20-25 minutes or so, I'd like to show you the essence of Rewire – how it works, how effective it's been, and the lessons learned over the last five years. Rewire was started by students and it's run by students. My office – myself included – developed and provided the framework, then trained students to deliver this to their peers. I've always seen Rewire as a resource that students can use to influence their peers, but instead of a top down delivery, students are allowed to customize and optimize it to their audience. Of course, with students' busy schedules, the level of customization varies. But mostly students are inventive and are eager to inject their own personality and creativity into it.

We also work with the powers that administrate the student residences, to ensure that students have all the tools they need in order to run an effective campaign. Instead of using a traditional information campaign – which may only be marginally effective – we've borrowed from community-based social marketing, theory of plan behaviour, and persuasion theory to craft Rewire's messaging in terms of engagement mechanisms, tone and content. With all the materials, it's our constant goal to make this as simple and elegant as possible for our volunteers. You can see some of them in this picture. [Slide]

We are really looking to change habits, to reduce resource consumption and thus reduce greenhouse emissions at the University of Toronto. One way to accomplish this task is to implement technological changes, such as lighting and retrofits or any other types of technological changes. With these changes alone, it can result in significant reductions, but in the long run, these kinds of initiatives must be coupled with changes in behaviour to maximize their effectiveness.

Let's say you put in an energy-efficient air conditioner. If people end up leaving it on even when they're not using it, the energy efficiency of that air conditioner goes right down. By making small changes in our daily activities collectively, we believe that we can greatly reduce our energy footprint and environmental impact. My office's objective is to facilitate these behaviour changes and make them happen for the long term.

My office falls under facilities and services, i.e., the people who take care of the buildings and the grounds. Even though we are under them, our director is cross-appointed as a faculty member. We're able to utilize a lot of the research potential that's in the university environment. As such, we actively engage in teaching and research initiatives – of which Rewire is one – and work closely with facility staff.

We also take steps to try and integrate teaching and research into operations wherever possible. Given that research approach, we strive to be rigorous, strategic and transparent with all the things we do. That means we try our best to measure all the things that we do to outcomes, so as to provide us with better feedback and fine-tuning at the end of the project.

The University of Toronto is a pretty big place. It's the size of a small city with about 4,000 students living on campus. A quick question again – is your institution larger or smaller than ours?

[Webinar participants responded]

Based on those responses, the university is big and I think we are the biggest university in Canada in terms of the number of people. We definitely try our best to be number one in our places, but I'm sure that McGill [university, Montreal, Quebec] has a few things up their sleeve.

A big part of Rewire is understanding how we behave. I spoke a little bit about information campaigns. Who's run an information campaign, i.e., with pamphlets, posters, people out on the street?

[Webinar participants responded]

Definitely some of you. From our research – after many decades of this type of program, based solely on information or incentives or disincentives – it's become pretty apparent that they work some of the time, but mostly they don't really work in terms of changing behaviour for conservation initiatives.

What we found in the literature is that there is a relatively weak link between attitude and behaviour. People often don't do what they believe they should do for a number of reasons. There's also a surprisingly weak link between information and attitude. People tend to seek out and remember information that confirms their pre-existing beliefs and biases.

The usual assumption that information drives attitudes, which in turn drives behaviour, is actually more accurate in reverse in the sense that attitudes and information are often gathered and developed to quell the cognitive dissidence. I suppose you could say there is a mental conflict between current behaviour and new information.

The idea behind information campaigns is, if people only knew "X, Y and Z," then they would or wouldn't do this. That notion is somewhat flawed and based on an oversimplified model of behaviour. So why are information campaigns so common? There is a lack of alternatives. Right now there's a lot of development within the social marketing side that provides a lot more alternatives, which I will get into later.

There's also lack of feedback from audience, from users; information campaigns also tend to fit existing business models and deliverables. When you're trying to report to funders and they ask you, "How many people have you engaged?" well, engaged is a somewhat loose term. By giving 1,000 pamphlets to 1,000 people you can technically say you engaged 1,000 people. There's also faith in the law of averages that if you put that information out, there must be some people out there who will take it and do as you suggest.

This whole information campaign is based on the advertising model, which is about changing consumer preference in an existing behaviour instead of creating a new behaviour. The idea that a convincing argument leads to intention leads to action doesn't really work.

Sometimes these campaigns work, but they're based on this type of oversimplified linear model of how humans make decisions. If we're to visualize this, the logic behind an information campaign assumes a fairly singular relationship between what we see, hear, feel, think and behave. They place emphasis on one variable, material interest and/or altruism, ignoring others that can overpower them. That's really not a strong incentive or an argument.

Furthermore, many decisions are not based on a calculative decision set. We're not guided solely by our conscious rational thought processes. I think you've heard people say, "We're rational beings." I think that's very true. We're rational, but we're also very irrational. We want to see ourselves operate completely rationally, but that's not often the case. There are plenty of psychological theories out there that try to explain this process.

[Slide] If you look at the table here, you see that there is reason, cognitivism and automatic behaviourism within the private and public realms. Human behaviour is governed by some combination of rational aspects and automatic factors. A choice is influenced by a combination of individual and social dimensions, which we – as well as a large number of scholars – believe to be perhaps the largest driver of human behaviour.

[Slide] The theory of planned behaviour is a psychological model of how people make decisions on which the rest of our program is largely based on. It tries to explain the not-so-straightforward, casual connection between attitudes and behaviour. It's been shown to be one of the more predictive models of behaviour. If you look at the flow chart, you see that the intentions to carry out a specific behaviour are not only shaped by our attitude towards the behaviour, but also by subjective norms – which is whether we think it is important to people who are influential to you – and perceived control of your surroundings or of that specific action.

Even though those form into intentions – even when one intends to act on a certain behaviour – there can still be impediments. Those are things that we call barriers. They can be something that's tangible, physical, such as when you want to turn off a light. If there is no light switch, that's a physical barrier. Or if you don't feel like you have the authority to do something. There is a light switch in the hallway, but you don't know if you can turn that off.

As an example, people often exhibit much more pro environmental behaviour at home than work. While I guess this is partly because of financial reasons (you don't see a financial gain when you're turning off things at work), it's also because of a lack of perceived control. With social norms in the workplace, people don't feel like they can do something and/or those behaviours aren't being modeled.

[Slide] I've mentioned social norms a lot because it's very powerful. Social norm in our experiments, time and time again, have come up as a strong deterrent for a behaviour change. From our latest behaviour change program survey, we've determined that social norms have the highest coefficient of the three factors indicating – and has the most influence on people's behaviours – with the second being attitude and perceived control rounding out last. This knowledge of the power of social norms is extremely potent as it prioritizes our approach when constructing the messaging and delivery mechanism.

How many of you have heard of community-based social marketing or have actually ran a CBSM campaign before?

[Webinar participants responded; mostly positive]

Okay, then I don't have to get into much detail then. Community-based social marketing uses social marketing techniques within specific communities and our community is our student residences.

As you may already know, there are, usually, five steps to CBSM. [Slide] This is the model 1) Selecting behaviour 2) Uncover barriers and benefits 3) Develop strategy 4) Pilot strategy 5) Evaluate and implement broadly.

When we select a behaviour, we look at the likelihood of them actually performing it, the impact and their interests. We prioritize them. Rewire was a program funded by the Ontario and federal governments, so they really wanted to see an electricity conservation campaign and an energy conservation campaign. We targeted electricity use and heating use by students and looked at things they have influence over as opposed to things like the HVAC system for a residence.

To understand our audience, we conducted extensive interviews, focus groups and surveys. We uncovered their attitudes, understood their social landscape, as well as what they feel they can and cannot do. Some of the more interesting tidbits, aside from the power of social norms, are the common barriers of things we ask of them. The majority of the time they don't turn things off, it's because of forgetfulness and laziness. It's not very surprising, really. I think we all fall under that. It's not unique to college-age students, and especially not to young adults.

With that information, we developed tools that volunteers can use to persuade their peers of the changes we want them to do. In the Rewire network, in developing this strategy, we've placed ourselves in the middle, where our role is to develop the framework and to coordinate the volunteers and train them how to do it.

At the same time, we work with residence administration so that they can facilitate anything that's happening on the ground should the students need anything. Let's say they need funds for an event, that's something that we've negotiated with the residence

administrators. For student volunteers, we rely on them to deliver the message and set the social norm in their space.

As part of the development of the strategy, we try and get the students and the administration to work together, as opposed to using us as a conduit. One of the great things that we've seen happen was – [slide] this is Claire, at one of our student residences. Through her ingenuity and creativity, she started a clothes drying rack lending program at her residence, with the help of her residents. Any time there can be some kind of collaboration between students and the administration, we try and foster those relationships.

In terms of the delivery mechanisms, we focus on three things. Knowing our audience's barriers and motivations, we focus on, first of all, word of mouth and fostering social norms. Even when we first started Rewire, we focused on using materials and posters to deliver that message. But we found it to be much more powerful when that message came from an actual person, especially friends and neighbours, rather than a piece of paper on the wall or even the administration.

As part of the word of mouth, we have volunteers who go around and talk to their neighbours about energy conservation. We also ask them to hold events to bring these issues to light.

The second focus is on prompts – prompts to combat laziness and forgetfulness. Again, the biggest barriers are forgetfulness and laziness. Our physical visual prompts – stickers, posters – have a role in reminding people of actions that we ask them to take. And by "we", I mean their peers, their friends and their neighbours.

Third, we focus on convenience. We want to make sure that if they want more information, that they have it at their fingertips when they're on their laptops. We have a website (http://sustainability.utoronto.ca/projects/rewire.htm) to make it easy for them to access that information. I think the future – about electronic communication – it's very limited to where they're working. It's usually when they're sitting down at their desk, and that's usually not when they're thinking the most about energy conservation. In the future, we may move some of that information to a physical medium, such as a handbook or a manual of some sort.

[Slide] These are some of the special tools that, through our research, we came up with to combat the different barriers. We have lack of motivation, forgetting and lack of social pressures. You can use different tools to combat those things. We also have listed a lack of knowledge and convenience and we have different tools to address those as well.

[Slide] In terms of the structure of the program, we started a one-month program in our pilot in which every week had a different theme. We then expanded it to a year-long program, from September through April (when students are in classes). Every month had a special theme. In September we try to get started by recruiting volunteers. In October, we're targeting computers; November, lighting; December, making sure that things are

turned off and unplugged before they leave for an extended leave of two weeks when they go home for Christmas. In January, we tackle laundry for water use and drying. February, we look at study solutions when they're studying for exams. In March, we ask them to take the stairs. In April, we look at reducing their water consumption when they're taking their showers.

At the start of each month, the volunteers pick up the prompts from my office and they put them up on their floors. They talk to their peers and neighbours at the monthly floor meetings they have to discuss the goals of the month. Then it is up to them, for the rest of the month, to talk about the theme and actions with their peers whenever they get the chance, as well as hold events. These are some examples of the prompts we use. [Slides of posters]

There are many factors to consider when you're attempting to create a clear and effective message. One thing we found was, any time you have a physical medium, make it vivid, personal, and make sure that expectations are clear. Those are very important. Making sure of the attitudes and behaviours of audiences prior to developing messages will help you design whatever you need to design.

Having that message delivered by an individual or organization that's credible with the audience is also very important. We tend to think that peers are more credible than, for example, the university administration, which is usually coined "the man" around here.

We also use Facebook to remind them of events that are happening. We try to foster some type of troubleshooting forum for the volunteers. [Slide] This has been somewhat of a non-starter. It's mostly used as a messaging board from us to them rather than between the peers. We don't have an idea of how to fix that yet, but we'd like to have some kind of forum where they can exchange solutions and help each other out in the near future. But at the end of the day, we were really looking at the social interactions between the volunteers, and definitely the social interactions between the volunteers and their peers.

[Slide] Events are part of their schedule throughout the year. We ask volunteers to hold events, such as movie nights, green pub nights. We've had other creative ideas, such as a recycling relay, where teams of people run a relay through the cafeteria, putting the materials into the right bins. We've also had a Take the Stairs Challenge. Events are not something we've been very prescriptive about. These are mostly student events that they thought up themselves, and it's amazing what they can come up with.

Monitoring behaviour change can be quite hard. We've put in electricity sub meters in places where we thought would be most appropriate. It turns out that it's a lot harder to isolate this program from all the other things that were happening – weather, daylight hours, etc. It's really, really tough. However, we've managed to boil it down to something that I think represents the changes in electricity demand after our pilot. As you can see in the orange line [slide], that is our pre-pilot electricity demand. That was

from September through December. During the pilot, which is the black line, that was the month of February, then the post-pilot, March and April.

These data are from our pilot, so these figures are much older than 2011. There's a reason why we stopped measuring electricity and the biggest thing is cost. It's incredibly costly to measure electricity at that level because we're only looking at user-mediated behaviour. We had to isolate the lighting panels and receptacle panels. There are many compounding factors that can affect electricity use. It's incredible tough to measure; however, if you can do it and do it well, please send that along to me as I'd be very interested in that.

Unfortunately, we've tried to measure it on a year-long basis at other places. It's just that we haven't had the manpower to crunch those numbers yet, so we don't have up-to-date numbers for the program. [Slide] However, we have been surveying for quite a while. And yes, even though they're self-reported behavioural changes, we are looking at changes in behaviour mostly around common lighting use. Those are usually the lights that are left on, in common rooms and bathrooms and whatnot.

When we first started out, people got so excited that they started turning off lights in the hallways to the point to where it became a health and safety hazard. So do be careful. Students can get a little enthusiastic, to the point where it breaks the building code.

As you can see, turning off the lights when leaving the bathroom has a huge uptake. When we asked the students what happened before, they thought, out of courtesy, that they should leave the lights on. But when we told them it's okay to turn things off, and that it's not a hassle for people to turn the bathroom lights on when they get there, lights started turning off.

[Slide] To recap, here are the five steps of behaviour changes again.

[Slide] We'll go next into the lessons learned so far. For me, the last five years has been quite a journey. The cost of developing Rewire has been quite big. It's been a big investment from our office. But with more and more case studies, especially combing through CBSM.org – and now that we have Cullbridge – there are a lot more resources now than ever before. Please take advantage of those resources.

On the issue of persistence or behaviour longevity, how long does that keep? We've been trying to understand that for the last little while. We're still researching the effects of Rewire on a long-term basis. The one reason that Rewire has worked so well year over and over is because 60% of the students live in residence. Then they leave and there's another new cohort of people who come in. We are actively trying to get some data on behavioural longevity, but that is something that we've yet to come up with.

Students are always asking for feedback on how well they're doing. With electricity metering being so tough for us, we found it incredibly hard to provide that feedback.

Again, that's something we're looking to develop in the near future – it could be a store-bought solution or something developed in-house.

When we first started the program, we though attitudes shaped behaviour. But the more we looked at it, the more we see that behaviour can change attitudes in the long run. Other lessons we learned were about messaging. People don't respond well to negative messages. Negative messages take away most people's feelings of agency and control. We found out that if they feel they're empowered to do something, they'll actually do something. It's much more likely than if we tell them doom and gloom.

People don't like to be told what to do, but they are always influenced by other people, especially by people like them. Feel free to email me at sustainability@utoronto.ca.

Q&A

Q: Can you explain a little about how the 150+ students are utilized in your section?

A: On an average basis, 60-75 of them are from Rewire. They're active volunteers for us. The rest are either core students that we work with in courses from our office, or part-time students who actually are employed by us to run projects and fix computers. It's all over the entire spectrum.

Q: Did Rewire receive funding from the Ontario and federal government? Can you let us know what your budget is for the Rewire program – first in developing it and per year? And where did that come from?

A: Rewire received funding from the federal government, as well as the Ontario provincial government, with two different funding programs. One was the ecoACTION from the federal government. The other was through the Ontario Power Authority.

The total revenue from that has been $300,000, including in-kind donations, and that was the budget for developing the program for the first three years. Subsequently, we received another grant to continue to develop and fine-tune the program. That was about $150,000 over three years.

Q: So it's about $50,000 a year at the moment?

A: Yes, $50,000 a year, including salary – it's about half if you're maintaining – and with some development half-time. If you're just maintaining the program, it's about a third-time. It can be done in a third of the time.

Q: Do you ask students to commit to doing things?

A: Yes. That's part of getting started the first month. We have a pledge we ask them to sign. The pledge says, "I commit to the actions that are asked of me by the Rewire Project," or something like that. We keep it vague so that they are buying into the

program as a whole as opposed to a certain action. If you want them to just do one thing, I would be as specific as possible. But yes, we do ask them for a commitment.

Q: Typically you shouldn't be asking for commitments until you know the people are predisposed to doing what you want them to do. You have a whole bunch of students who are a captive audience, so to speak. How do you ask them for the commitment and what percentage of the students actually agree and make a commitment?

A: I'd say at least 75% of them agree. Before we ask them for a commitment – this is something the volunteers do, just to be clear, the volunteers take the commitment – they present Rewire as a project and they talk to them about energy conservation at the residence. They explain to them the whole framework and then at the end of their presentation, they get students to sign a commitment to energy conservation and what we ask of them. At that point, they don't really know what specifically we're asking of them, but we get them to sign on to the general idea.

Q: Is this one-on-one? Do the volunteers go to each individual to ask for those commitments?

A: That can happen. It depends on the space. We usually ask them to present this at a floor meeting or house meeting, just so they're not burdened with the task of going to each person door to door. Now if they're asked to do that, they would probably not volunteer for us for very long because that's a major time commitment on their part. Any time that we can shave time for them, we try to do that.

Q: Is it possible to get a copy of your data on student motivation, i.e., the research that you did?

A: I think right now we're still putting together a few different papers. We plan on publishing those, so if you send me an email, I can put you on the mailing list.

Q: These are really nice posters. Did student volunteers create them?

A: They were developed by a design student, not at U of T, but at a neighbour institution (Ontario College of Art and Design). We hired her and worked with her to develop those posters. When we first started, we developed the posters in-house. The main goal when we developed it was that it had to look different than all the things that are on bulletin boards – meaning lots more color and lots more visuals than words. The posters that you see are the evolution of the design from when we first started.

Q: Do you think you will ever try to track longevity of change beyond the students' time at the university?

A: We have one student researcher working on that right now, trying to track down the students who were involved in Rewire when they were living in residence. The residences aren't very keen on giving out the contact information of their students, so it's

been a battle trying to reach them once they've left. But yes, we are definitely trying to find them and trying to understand if those behaviours have persisted and how Rewire has changed their perspective on energy conservation.

Q: You mentioned using risqué messages at the outset. How far did you feel was appropriate and why did you discontinue it?

A: When we first started, our idea with risqué messaging was that students would find them humorous. With one poster, we went as far as having a silhouette of an androgynous person behind a shower curtain in a provocative pose where the hands were behind the head, arms raised, shoulders back. The headline was, "Horny? Well, take a cold shower." That proved to be a little too risqué for some of our students who are more conservatively minded. Some students loved it so much that they actually took them down and kept them in their rooms. It was funny.

We thought that the administrators at the residences would be more opposed to things like that, but they also loved it, which was a total surprise for us. Getting that type of feedback, that it didn't work with everybody, made us change our direction. We wanted to appeal to as many people as possible and to polarize them was something we didn't want to do. Now I don't know if it's more effective to be risqué and be polarizing. That, I think, is still a debate in the advertising marketing community.

Q: How did you encourage recycling? You're primarily an energy conservation program, so it's not clear to me that you did.

A: Recycling was actually a part of the tool kit in our second year, but we discontinued it because we found that, in Canada anyway, we have a pretty strong track record of recycling. We found that people tended to recycle and thought that was all they needed to do. That was their contribution to the environment, so they didn't need to be energy conscious, so we took that off our list. Recycling is, I guess, the most important thing. To get people to recycle is to provide them with the correct bins so that it's clear which things go in where. That's the first and foremost. And the second is to have people demonstrate that in a public setting.

If you have a large garbage bin and a small recycling bin that sets a tone that garbage is more prevalent and recycling is a side thing. In all of our U of T offices, we have a large recycling bin and a very small garbage bin, so that sets the tone that most of the things we throw away are recyclable, whereas only a little bit of it is actually going to the landfill. Even small things like that, sizes of bins, can have an effect on how recycling is viewed and how effective it is.

Q: While it's hard to measure energy use at the individual level, do you have overall performance improvements at the building level or across all the residential buildings while you're doing this? Do you have anything that you're doing that's been continuing to monitor your impact on energy consumption? Have you had any real success with water use? I see there was a deterioration in the time of the shower item in your table.

A: To actually measure water proves to be quite difficult here. The City of Toronto bills water on a bi-monthly basis, and there are oftentimes lots of errors. One month they will be charged 200%, and then the next month they would actually refund parts of that. As far as savings goes, I have a few numbers that we extrapolated from the pilot and the first year. On average, we're looking at 146 kilowatt hours of savings per person in the residence over the first few weeks.

Q: Is that per room?

A: This is where it gets a little difficult. You have rooms that are singles, doubles or triples. We have buildings that range from being two to five years old to almost 100 years old. I wouldn't be very comfortable saying, "This is exactly how much you would save," but per room, I guess you would just double that. Assuming that there are about 250 persons in a residence, and we get charged about 10¢/kWh, it's just shy of $4,000 of savings per year per residence.

Q: Would you apply social learning theory again to build a future program? Is a related longitudinal study to better understand long-term behaviour change something you might pursue as a research avenue?

A: I'll answer the second part first. I think the long-term behaviour is something our office is very interested in. I think it's important that we keep up-to-date with them first of all, and we try to do that by going to conferences and keeping an up-to-date literature review. But I think yes on both parts.

Q: If people wanted to get the artwork for those posters, is that possible for use in other programs?

A: I'll have to talk with my director about, but at the moment, I wouldn't think so. They're fairly specific to Rewire, so we'll have to discuss that.

Q: How do you recruit volunteers? Can you speak about your experience with maintaining volunteer participation and commitment in the residence setting?

A: We've pawned that off to residents themselves because they know their students more. We ask that outgoing volunteers recruit new ones. One thing we've done when we had to recruit for a new residence was, first of all, we go to their administration office and talk with the dean and the residence life coordinator, if there is one. We have them identify who the people are who are the most interested in the environment. They're usually ones who stand out. We also ask them who is most involved with the residence in general. That's usually the first step we take.

The second step we take is going to their events to talk about our initiative and try and get people to sign up. As far as maintaining, I'd say the most important thing is to not ask too much of them. Give them a lot of recognition for the work that they do. Whether you do

that through giving them treats, a certificate or badge, praise – any feedback that helps them is helpful in maintaining those relationships and the volunteers working for you.