

Changing the World One Household at a Time: Portland's 30 day program to lose 5000 lbs

By Sarah Juniper Rabkin

On playing fields and battlegrounds, challenges that would be daunting and impossible if faced alone are suddenly possible when tackled in a close-knit group. The people haven't changed, but the way in which the task appears to them has.

—Malcolm Gladwell, in *The Tipping Point:
How Little Things Can Make a Big Difference*

In late 2001, denizens of several residential areas in Portland, Oregon, began knocking on doors, inviting their neighbors to take part in a campaign to reduce household carbon dioxide emissions. In doorway conversations, these volunteer “team initiators” emphasized the power of their low carbon campaign not only to improve environmental quality, but also to promote a sense of community and enhance neighborhood life. Residents who showed interest were invited to attend a block-based information meeting in their neighbor’s home.

Altogether, 130 Portland householders opened their doors to peer recruiters, and an additional 22 received invitations to introductory meetings via speakers and literature tables at large public events such as a local conference on sustainability. Seventy-two of those approached were sufficiently intrigued to attend meetings, and all but one of the 72 decided to join carbon-reducing teams. Ultimately, nine block-based teams representing 54 households came together in a pilot program to help each other diminish their impact on global climate.

In short, the CO₂-reducing campaign garnered a recruitment rate of about 43 percent: almost twice that of a similar environmental-action campaign that preceded it in Portland. By community organizing standards, this is remarkable recruitment rate, according to David Gershon whose Empowerment Institute provided the blueprint and implemented the program.

The outcome was also impressive. With the help of a web-based carbon-dioxide emissions calculator, members of each participating household estimated their baseline CO₂ footprint, then set out to shrink it. Drawing on suggestions provided in a workbook titled *Low Carbon Diet: A 30-Day Program to Loose 5,000 Pounds*, they shortened their showers, re-set their water heaters, donned extra sweaters, and turned down their thermostats. Some installed energy-efficient appliances or insulated their attics. Others pumped up their tires, tuned up their engines, traded in gas-guzzlers for fuel-efficient cars, or left their vehicles at home.

By adopting these and other carbon-busting practices suggested in the workbook's checklist, the first 31 households to complete the 30-day program succeeded in reducing their household-based carbon dioxide emissions by an average of about 22 percent, with an average absolute reduction of 6,700 pounds per household.¹ In the process, they strengthened their ties with fellow residents. As participant Amanda Lewis noted, "I like the community-building aspects of this. One of the best things was getting to know my neighbors."

This successful climate-control program could potentially inspire city governments everywhere. Its success suggests that groups of citizens can slash residential CO₂ emissions, through neighborhood-based initiatives that provide practical carbon-saving tools and that focus on climate protection as a goal. A lack of further funding prevented the Empowerment Institute and the City of Portland from expanding the residential low carbon campaign beyond the initial pilot project. It therefore remains to be seen whether CO₂ belts tightened during a 30-day period can stay cinched over the long-term. Another open question is whether the program would garner such an enthusiastic response in areas less receptive to climate issues, or whether climate protection would need to be combined with other, more tangible benefits in a broader program (for example, see Watrous and Fraley, this volume).

However, city staffers who helped oversee the project believe that its approach can be exported to a broad variety of communities, including those lacking Portland's reputation for environmental initiative. For municipal governments, grassroots activists, and other interested parties, the "Low Carbon Diet" merits a closer look.

Slashing the "ignorance tax"

So why was the "low carbon diet" so successful at mobilizing neighborhoods? The approach focused on individuals and motivation. Portland citizens reduced their CO₂ emissions as the result of collaboration between the city's Office for Sustainable Development (OSD) and the Empowerment Institute (EI), a private organization that specializes in behavior change and public participation. Led by founder and CEO David Gershon, EI develops community-based behavior change programs and builds the capacity of local non profits and government agencies in implementing them.²

Individuals and households were a natural target for the city to engage in climate protection goals, but a challenge from a behavior change perspective. The City of Portland's visionary Commissioner of Public Utilities, Mike Lindberg, initially engaged Empowerment Institute to deliver its Sustainable Lifestyle Campaign. He was not only its advocate, but did the program himself. He said this about it: "You have the entire household involved in a voluntary way instead of having a program that is mandated by the government. This is at the most grassroots level possible, and that makes it more effective."

This initiative enables municipal agencies to help citizens use natural resources more efficiently. The campaign operates on the premise that 35 to 85 percent of a

¹ Figures are from the Empowerment Institute's project summary. These self-reported data were gathered from participating households over a period of 30 days and extrapolated to one year.

² The Empowerment Institute has designed programs for dozens of cities in the US and Europe on topics varying from environmental sustainability to neighborhood revitalization to emergency preparedness. The Institute offers its services to local and national government agencies, non-profit groups and corporations. See the web at: <http://www.empowermentinstitute.net/Default.htm>

community's natural resources are used at the household level—and that up to 75 percent of those resources are wasted through inefficiency and lack of awareness.³

With its emphasis on grooming savvy citizen resource stewards, the campaign strives to lower household utility bills and reduce municipal government service-delivery costs. The Institute provides participants with an accounting of financial savings resulting from their participation — savings EI refers to as relief from an “ignorance tax.”

The linchpin of the Sustainable Lifestyle Campaign is the Household EcoTeam Program, which has been adopted by dozens of cities and over 150,000 individuals in the U.S. and Europe. An EcoTeam usually comprises five or six neighborhood households that meet eight times over a four-month period, helping each other—with the aid of a step-by-step workbook and a trained volunteer coach—to reduce waste, pollution, and water and energy use; to become environmentally conscious consumers, and to bring additional neighbors into the fold.

“The program is designed”, says EI, “to help households systematically evaluate their environmental impact, learn of actions they can take to lower it, set up a support group to help them follow through on the choices they make, and provide feedback to positively reinforce the benefits of the actions taken so they are sustained over time.”⁴

EcoTeams achieve significant average annual resource savings: 35 to 51 percent reductions in waste-stream garbage; 25 to 34 percent reductions in water use; nine to 17 percent in energy used; 16 to 20 percent in transportation fuel use; and

³ EI derives these figures in part from the “factor four” concept developed by Amory Lovins. “Factor four” posits that resource sustainability can be quadrupled using existing conservation technology.

⁴ <http://www.empowermentinstitute.net/files/SLC.html>

financial savings in the hundreds of dollars per household.⁵ In addition, the process of forming teams and following through on goals can foster social cohesiveness in participating neighborhoods.

EI points out that by refining its management of natural resources and improving local environmental quality, a community may increase its appeal as a place in which to live and work. Strengthening the character and attractiveness of neighborhoods may slow flight out of the community. And increasing the efficiency of citizens' resource use may defer the cost of major infrastructure projects such as water treatment plants and landfills, freeing up funds for other community development projects.

Lang Marsh, Director of Oregon's Department of Environmental Quality was another strong proponent of bringing Empowerment Institute's environmental behavior change program to Portland. He noted that, "We see [this program] as a significant opportunity to achieve citizen behavior change, which has been one of our most difficult challenges in advancing environmental protection." And Mike Lindberg, Portland's Commissioner of Public Utilities, said of the program: "You have the entire household involved in a voluntary way instead of having a program that is mandated by the government. This is at the most grassroots level possible, and that makes it more effective."

Success in forming over 200 effective EcoTeams led OSD to request Empowerment Institute adapt its program methodology specifically for reducing CO₂ emissions—an explicit Portland goal since 1993. EI collaborated with OSD to create a tailor-made workbook for this purpose, and thus was launched the "Cool Portland" campaign and the "Low Carbon Diet."

Knowing vs. doing

As human beings ... we can only handle so much information at once.

—Malcolm Gladwell, in *The Tipping Point*

⁵ EI calculates these percentages based on self-reported before-and-after resource-consumption data

One essential element of the program was the careful minimizing, selection, and packaging of information conveyed to participants. In observing a variety of municipal citizen-education projects, EI researchers had concluded that while a community may increase environmental awareness via glossy brochures, financial incentive programs, and access to information, these approaches usually fail to engender behavior change. “Citizens are generally willing to cooperate,” said Gershon, “but they have a hard time changing ingrained habits.”

Overwhelmed with extraneous information, residents may simply bog down in fear or guilt or confusion, and give up on the possibility of making a difference. Or they may come to see information as an end in itself: “We’ve observed that information by itself can be an undermining factor in getting people to act,” said Gershon. “People think that if they’ve thought about something, they’ve *done* something.”

Particularly in the case of global climate change— “an issue,” said Gershon, “that seems almost unmanageable, out of control”— one element of what citizens need is to have the information broken down into bite size actions. These actions need to contain concise facts about their role in the problem and step-by-step guidance for how to adopt the necessary new behaviors and practices.

The 31-page Low Carbon Diet workbook was designed in this format. Attractively illustrated on every page with cartoons and with graceful photographic images of water lilies, it spends just three short paragraphs summarizing, in stark terms, the overarching problem of global climate change (“*the major environmental threat facing our planet*”). By the top of the second page, it is pitching Portland’s prospects as a world leader in reducing global climate impact:

It is now up to the citizens of Portland to take moral leadership by making the lifestyle choices that will lower their CO₂ emissions. If enough citizens step forward it will be noticed and spread to other communities. ...If ever

provided by participants.

there was a time when a community and its citizens could make a difference in the world—this is the time and Portland is the place!

In its behavior change workbooks, what Gershon calls the “why-act” for each action is kept to a minimum. “If we can’t capture the heart of the matter in an initial sound bite,” he said, “we won’t be successful in engaging someone to take action.” Recipe-style instructions and checklists for action emphasize doable steps and clear targets. In keeping with its weight-loss analogy, the Low Carbon Diet assigned CO₂ savings values to every recommended action.

Like members of a weight-loss club counting calories, participants were able to track and quantify their progress. They could visualize, said Gershon, “where they currently were on the American continuum: from a climate-neutral profile—nobody can really live that way unless they purchase carbon credits—to the high end of the American profligate 100,000-pounds-of-CO₂ lifestyle.”

Participants cited the workbook as one of their favorite aspects of the Diet. “I love the workbook,” commented Portlander Sergio Diaz. “It’s easy to follow with all the information in one place. I thought we would be overwhelmed with information, but we weren’t. It’s clear and concise. The way it is put together sets up a good challenge.”

“It’s a pretty cool thing to know your CO₂ footprint,” noted participant John Wadsworth. “Bringing my daughter (age nine) to one meeting helped her get on board for a five-minute shower. This inspired me to look into solar hot water heating, and in the normal course of things, I wouldn’t have done that.”

But a well-designed workbook is only one component of a successful behavior-change program. Participants also need a peer-support network to motivate them to take the actions and celebrate changes in longstanding habits.

Preaching from the choir

Participants were not only supported to make changes in their own lifestyles, they were encouraged to reach out to others to do the same. The rationale is based upon the notion that to truly make a difference we need to be the change and engage others in the change. Participants were encouraged therefore to pass along their knowledge and enthusiasm to prospective participants.

In helping Portland bring participants aboard the Cool Portland campaign, EI drew on its expertise in the field of social diffusion. Scholars in this discipline attempt to identify what it is that enables new ideas, behaviors, values, technologies, products—all kinds of innovations—to spread through populations. The doyen of the field is Everett Rogers, a Stanford social scientist who has studied 1,500 cases of innovations and their dispersion for the last couple of decades.

Social diffusion's take-home message is straightforward. Innovations do not ripple out evenly across city blocks, apartment buildings, boards of directors, neighborhoods, conference attendees, or any other sort of population. Key to the successful dissemination of an innovation is a category of people that Rogers calls "early adopters": people who are attracted to the innovation and who have a high tolerance for experimentation. If such individuals make up some 10-20 percent of a given population, said Gershon, then "you began to hit a tipping point, a critical mass point where if the innovation is going to take off, it will start diffusing on its own momentum."

"Rogers says that the way the innovation diffuses is from peer to peer, neighbor to neighbor, not outward from an expert," said Gershon. "What I began to learn from that, and to apply, was how to choose my targets for the early adopters. The key is not to try to get everyone anywhere to do something, but to let them come to you. The early adopters self-select. You want to preach to the choir *because the choir will sing loud enough to get everybody into the church.*"

Early adopters, or “neighborhood initiators,” for the Low Carbon Diet program came largely from lists of Portland activists compiled at sustainability-related public events. These individuals were trained to use simple talking points to invite neighbors to information meeting led by a paid staff person or a trained volunteer. Those who attended meetings and ultimately joined carbon-reducing teams were not necessarily self-identified environmentalists or sustainability advocates, EI’s Gershon points out, but rather the neighbors of environmentalists.

The “next cutting edge”

Portland’s CO₂ reduction campaign stands apart from other such efforts not only by dint of EI’s behavior change program, but also because of its explicit focus on climate change. For David Gershon, this distinction lies at the project’s heart. “The idea that I could be part of something that’s directly tackling climate change, when this is the most important environmental issue we face as citizens of the world was very appealing to early adopters.” he said.

The emphasis on climate impact represented a natural evolution for EI. “We began our [environmental] work in the early 90’s,” said Gershon, “when the major UN Earth Summit in Rio hadn’t even yet occurred. At that point we decided to use the term ‘environmentally sustainable lifestyle’ before that phrase was in vogue. We were helping people understand that the environmental choices they made in living their life made a difference.”

But the new millennium, in Gershon’s view, brought a need for new language. He believes that the power of concepts like “energy sustainability” and “sustainable lifestyle” to motivate behavior change has reached a kind of plateau—at least in some communities like Portland. By focusing explicitly on climate change, we were able to appeal to people who were looking for the next cutting edge in environmental responsibility.”

Gershon approached the campaign as a research initiative to determine whether citizens could “buy climate change directly” as a motivator, rather than other,

seemingly more direct benefits such as cost savings, waste reduction, etc. “We knew our [EcoTeam] methodology would work,” he said, “ if we could get people behind the notion of climate change.”

What he and his colleagues discovered was that with climate change as the primary motivating issue, neighbor-to-neighbor recruitment yielded 20 percent higher participation rates than Portland’s previous EcoTeam campaigns. And the participants not only met the city’s original goal of a 10 percent reduction in residential CO₂ emissions; they more than doubled it.

Beyond the “Early Adopters”

Indeed, Low Carbon Diet program participants evinced a degree of enthusiastic, effective participation that surprised and delighted Portland city staff. “It was quite remarkable, the lengths to which people went, and how much each individual household was able to do,” said Michael Armstrong, an OSD management analyst who developed the Portland specific calculations for the Low Carbon Diet workbook and served as the city’s main liaison for the project.

In a pilot-project evaluation report published in Spring 2002, Portland OSD Manager Anthony Roy (a former EI employee) wrote, “It was satisfying to discover so many knowledgeable citizens ready to assist with teams. When people knew the truth about the issue, they wanted to help.”

“The people who actually got on the train were really enthusiastic,” said Armstrong. “Others said, ‘that’s great, but not for me.’ ... I think I agree with Gershon that [the Low Carbon Diet] can work. ...My suspicion is it works great for some people—more than I would initially have guessed—but not at all for others.”

While the “Low Carbon Diet” experienced tremendous success in its first 30 days, it is unknown what the limits are to a scaled-up energy conservation campaign based primarily on climate-protection goals. The program didn’t continue long enough to see how people were “drawn into the church by the choir.” As Roy

speculates, time and competing priorities may limit how active the “later adopter” category might be. There may be different approaches needed for those more initially reluctant audiences.

One additional possibility for expanding the participant base, suggested Michael Armstrong, is to consider reaching out not only to neighborhoods but also to organized communities such as religious congregations (see chapter by Bingham, this volume). He provided as an example the “1-2-3 Campaign,” a CO₂-reduction program spearheaded by Portland-area clergy. “1-2-3” organized churchgoers to reduce their household emissions through three simple steps: reducing thermostat settings by about one degree, replacing three incandescent light bulbs with compact fluorescents, and reducing driving speed by about two miles per hour.

“For the program to go to the next level, I think it needs to create a way to make global warming tangible,” speculates Anthony Roy, “and for the community to rally around the goal of x... [total] tons of CO₂ reduced. There needs to be a directly discernible benefit to the participant for the program to succeed. For instance, each participant gets their name carved on a statue or work of art that is created to symbolize Portland’s foresight and its efforts to reduce global warming.”

Complementing the basic methodology of neighborhood teams and empowerment for behavior change, such strategies may indeed prove a powerful combination for addressing climate change.

Beyond Portland

Communities that contemplate following Portland’s example may be initially daunted by that city’s exceptional record for commitment to energy conservation. In 1993, Portland became the first U.S. city to adopt a strategy for reducing CO₂ emissions. The city’s aggressive, multifaceted Local Action Plan on Global Warming has significantly decreased per capita greenhouse-gas emissions through a combination of electricity-conservation efforts, waste-biogas fuel-cell

power, use of hybrid-electric vehicles in city fleets, replacement of incandescent traffic signals with LED bulbs, and other programs.⁶

Portland's environmental "edge" notwithstanding, however, the city's sustainability experts see the Low Carbon Diet as easily transferable to other communities. "I think it's *eminently* transferable," says OSD's Michael Armstrong. "I think it could work anywhere. I think it would work in *Houston*—for some people. I think it's important to acknowledge that it's not going to work for everyone, but it does work for a certain slice [of the population]. The size of the slice may differ from one community to another" (see various community experiences in Young, this volume and Watrous and Fraley, this volume).

No matter where they live, activists who launch the Low Carbon Diet in their own communities will require some financial resources. In Portland, a \$50,000 foundation grant from the Meyer Memorial Trust, secured by EI covered the cost of the pilot program, including preparation and production of the workbook, and staffing while the City provided office space and staff labor at about 10% time over a period of several months. As Michael Armstrong noted, the "Low Carbon Diet" required "a lot of work getting team leaders and coaches up to speed and equipped with the materials they needed."

But needed resources can come from a variety of sources. Much of the support for Portland's pilot project came in the form of in-kind donations from businesses, government agencies, and non-profits. Nine organizations in all, from the federal Environmental Protection Agency to the Portland public transportation network, donated resources, time, and information.

One of the challenges to any new program is transitioning to long-term financial support or institutional practice. City budgets are limited and pioneers must often be creative at finding financial mechanisms to ensure longevity of the

⁶ From http://www.sustainableportland.org/stp_glo_home.html

program (see Young, this volume). Grants that might be available for piloting a new program may not entertain requests for long-term support. In addition, raising financial resources from granting organizations can be time-consuming and uncertain.

“Knowing how to scale [the program] up is a relatively straightforward process,” said EI’s Gershon. “We tried...but it wasn’t a high enough political priority for the City at the time.” But a citizen groundswell can influence policy priorities, and Gershon believes that participation in effective program like the Low Carbon Diet can shift the political seas. “A lot of policy makers try not to address problems where there’s no workable strategy or program in sight,” he said.

The Portland initiative provides a clear vision for such a strategy, he said—one that has the power not only to inspire activists, but to “help policymakers think more imaginatively and boldly” about serious programs for reducing climate impact. “Once you get individuals changing their lifestyle,” he said, “they become advocates and start to look for policy-level changes. People become part of advisory councils and start influencing decisions at the municipal level.”

A call to early adopters

The good news is that if people are the problem, people can also be the solution.

—David Gershon, founder and CEO, Empowerment Institute

David Gershon describes the opportunity this way: “Despite its global reach, climate change is very much a local issue. The causes of global warming come in large part from the everyday actions that take place in our communities, with individuals accounting for almost half of a community’s emissions and a third of America’s total emissions. While progressive local governments and businesses have developed strategies and programs to lower their CO₂ emissions, individual citizens have not.”

The Low Carbon Diet offers a way to bring individual citizens into the mix—and even if the program does not engage the majority of a city population, it enables

those who do come on board to help create a culture of possibility for everyone else. Says Gershon, “I would hope that the success of our Portland pilot program motivates early adopters to say, ‘you know what, I’m going to do this—build a groundswell. You have to start somewhere. Why not my block? Why not my community?’

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