

COOL CITY CHALLENGE

REINVENTING OUR CITIES FROM THE BOTTOM UP TO ACHIEVE DEEP CARBON REDUCTION, DISASTER-RESILIENT NEIGHBORHOODS AND GREEN ECONOMIC DEVELOPMENT

AN INITIATIVE OF EMPOWERMENT INSTITUTE

PROBLEM AND OPPORTUNITY: With international climate change legislation failing to get traction, a ticking clock, and the long timeframe required to scale up new technological solutions and renewable energy, the world is searching for feasible, scalable and high impact strategies to address global warming in the short-term while we still have the time to take action. Since cities represent 70% of the planet's carbon emissions and citizens' daily lifestyle choices represent 70% of these emissions, helping cities and their citizens reduce their carbon footprint provides the world with an unparalleled opportunity to address climate change. Further, engaging citizens can serve as a demand-side driver to increase the pace of renewable energy, energy efficiency and new technology adoption.

SOLUTION SUMMARY: The purpose of the Cool City Challenge is to seize this opportunity by bringing to scale Empowerment Institute's proven behavior change and community engagement methodology to help households achieve deep carbon reduction, create disaster resilient neighborhoods, and catalyze demand driven green economic development. The strategy is to first demonstrate this methodology in three early adopter California cities and then scale it throughout California, nationally and worldwide. The five city finalists, from which we will chose three, are San Francisco, Palo Alto, Davis, Sonoma, and San Rafael. The ultimate goal of the Cool City Challenge is to change the game around carbon reduction in cities and provide a viable path forward to address climate change.

As a result of the large carbon footprint of cities and citizens, they provide a key leverage point for addressing the climate change issue. But even though more than 100 local climate action plans have been developed in California alone over the past few years, they often lack implementation strategies and face stiff headwinds in community awareness and acceptance, much less financing. And these action plans tend to focus on high-level targets with no methodology for structured implementation, measurement or verification. Moreover, state and local approaches focus on technology-based solutions and policy adoption but generally lack strategies that include human and social factors that can either drive or hinder technology and policy adoption.

Initiatives for residential energy efficiency retrofitting programs targeting single-family homeowners have not been successful or cost-effective despite hundreds of millions in federal and state funding. Concurrently, personal transportation is the "800-pound gorilla"—the largest source of emissions in many cities—and city officials are largely vexed by this sector, with little in the way of short-term policy fixes and/or affordable technological solutions.

Fundamentally, this is a systems problem spanning multiple issues and perspectives: people's attitudes and behaviors, how people view and use energy, technology choices and cost considerations, existing policies and incentives, market acceptance, and larger social contexts such as norms and values. Traditional approaches to climate change mitigation that focus on technology, policy, and markets often neglect or underestimate the human and social factors that interact with policy acceptance, technology adoption and market development.

Unlike conventional top down climate action approaches, the Cool City Challenge is designed to work from the bottom up by empowering citizens to reduce their carbon footprint through participation in a structured behavior change program—the Low Carbon Diet—with a peer support group of neighbors called EcoTeams. A full suite of 24 carbon reduction actions is provided including transportation, home energy and food. Empowerment Institute's behavior change methodology is based on two decades of rigorous research and social learning that has demonstrated how a peer support system combined with recipe style actions set in the context of a structured program and compelling community vision, move citizens to take action.

Working with 20,000 people, the Empowerment Institute behavior change program and community engagement strategy have been able to get 25% average participation rate on a block by block basis with an average of 14% energy savings per household. Multiple studies indicating that these behaviors persisted over time.

Further, research has demonstrated promising results for overcoming many barriers to getting households to take up energy efficiency retrofits. In a pilot in Marin County 106 households representing 270 people using Empowerment Institute's Low Carbon Diet behavior change program and participating in a peer-support group on average reduced their household carbon emissions by 28% with 41% of the participants taking at least one substantive energy efficiency upgrade action. Similar results were achieved by 205 households in San Antonio, Texas.

Combine this with the 25% recruitment rate results indicates that this approach is capable of achieving up to 10 times the best-case conversion rate of any door to door, retrofit outreach program, which is typically 1%. Additionally, because the household recruitment and support is done on a voluntary neighbor-to-neighbor basis, this approach in comparison to major marketing campaigns is very cost-effective. And it is scalable.

The Cool City Challenge initiates a new paradigm in addressing climate change: coupling state-of-the-art behavior change and community engagement strategies with deep data collection and analysis, and enabling technology adoption, policy implementation and market development.

The Cool City Challenge recently won the NASA/Sustainable Silicon Valley global competition as the "most outstanding solution in addressing human impact on the planet's sustainability." Selection was based on the following criteria. "The project must be game-changing, implementable and scalable; be bold, visionary and tangible, focusing on a well-defined need of critical importance; be a part of an integrated strategy dealing with key social, economic, environmental, policy and cultural issues; exhibit clarity of solution design; be regionally specific yet globally applicable, and backed up by a solid plan and the capability to move the solution forward."

TEAM: The Cool City Challenge is headed up by David Gershon, one of the world's foremost authorities on behavior change and community engagement, who has assembled a world-class team of experts including Lawrence Berkeley Labs, Stanford, UC Berkeley, UC Davis, and World Wildlife Fund, to support its implementation, research and scaling.

TIMELINE: Start-Up (1 Year): build a new integrated program and technology infrastructure. Campaign (3 Years): Implement the Cool City Challenge in the three California cities.

WHY THIS SOLUTION AND WHY NOW: Because effectively addressing climate change is essential to humanity's survival and we have few feasible, high-impact solutions available in the short-term while we still have the time to act. And because the Cool City Challenge has the potential to be a tipping point solution in that it not only can effectively engage people to achieve substantial carbon reduction, can be immediately implemented, is cost effective relative to other solutions, and is scalable; but because it is a whole system solution that can drive change from both the demand-side (consumers/voters) and supply-side (policy change, technology adoption and market development). Further, this initiative enables nothing short of the reinvention of our planet's cities, or if you will, a major upgrade of their operating system that can help them better address the multiple challenges and opportunities the 21st century will bring humankind—most of which will be living in cities.

FURTHER INFORMATION: David Gershon: dgershon@empowermentinstitute.net
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