



2017 Elevate Energy Research Agenda

The Research and Innovation Department at Elevate Energy produces high-impact applied research for local, regional, and national stakeholders to drive investment in energy efficiency and renewable energy. This research is informed by Elevate Energy's extensive program implementation experience and positions Elevate Energy as a national thought leader. Broadly, Elevate Energy's 2017 research agenda falls into the three categories below.

1. Equity and Energy

Elevate Energy has a mission of "smarter energy use for all." To further this end, the team leads and supports several initiatives to ensure that the benefits of energy efficiency reach those who need them most: low- and moderate-income families, renters, and nonprofit social service organizations.

Energy and Equity Research in the Midwest

With generous support from the Joyce, McKnight, and C.S. Mott Foundations, Elevate Energy is analyzing the regulatory frameworks, policies, and funding mechanisms that underpin ratepayer-funded energy efficiency programs in Illinois, Michigan, and Minnesota. The research has a particular focus on low-income ratepayers and the programs that serve them, and the Michigan research includes a focus on nonprofit organizations. The goal is to understand how programs are funded and implemented, and to eventually grow the funding and improve program design and implementation.

Pilot Initiatives for Low-and Moderate-Income Homeowners and Tenants

In 2017, Elevate Energy will pilot several approaches to delivering energy efficiency to low-and moderate-income tenants and homeowners. First, in a partnership with the University of Chicago Energy & Environment Lab, Elevate will pilot the **Simple Savings** program to assist low-income families through reduced electricity consumption and increased on-time bill payments. Elevate research is informing the design of a **JPB Foundation** pilot program to connect low- and moderate-income tenants of buildings that undergo retrofits with financial services and education.

Elevate will co-author a paper on the relationship between **energy poverty and economic poverty**, using data from the Panel Study of Income Dynamics.

2. Valuing Energy Investments in Real Estate Transactions

Elevate Energy has been a pioneer in demonstrating the financial, health, and other benefits of energy efficiency upgrades, also known as non-energy benefits. Valuing energy efficiency in the residential real estate marketplace has been a foundation piece of that work. The following projects further Elevate's research on establishing value for high performance homes in the real estate marketplace.

Home Energy Information

Elevate Energy plays multiple roles to integrate energy efficiency and solar home information into the residential real estate process. Elevate Energy manages the **Home Energy Information Accelerator**, funded by US Department of Energy (DOE), to expand the availability and use of reliable home energy information at relevant points in residential real estate transactions. Elevate also coordinates the **Value for High Performance Homes Campaign**, funded by the Energy Foundation, to coordinate stakeholders and share learnings. In 2017, Elevate will document how providing buyers and sellers **energy use and cost information** at the time of listing in Chicago influences key real estate performance metrics like sales price and days on the market.



The Research and Innovation team is leading two initiatives related to solar and real estate. The team will publish a **PV Auto-Pop Roadmap** with Lawrence Berkley National Lab that outline the steps necessary to automatically populate information about solar photovoltaic systems into the multiple listing service (MLS). Elevate Energy will train nearly 6,000 real estate professionals, appraisers, and regulatory officials to appropriately value PV systems through its **Solar Training and Education for Professionals (STEP)** project, funded by DOE.

3. Elevate Program-Related Research

In addition to leading innovative research and pilot programs on behalf of Elevate Energy, the research team conducts applied research in support of the core program areas.

Dynamic Pricing and Smart Grid

Elevate will again conduct an annual analysis that compares customer electricity costs on ComEd flat-rate versus Hourly Pricing, which Elevate administers on behalf of ComEd. The **Energy Foundation Dynamic Pricing Cost Comparison** has found in previous years' analyses that most customers would have saved money on the dynamic pricing rate.

Energy Efficient Buildings

The team maintains a database of all housing types in Cook County, Illinois, to support our retrofit efforts in the area. Last year the research team completed **segmentation analyses** of single and multifamily buildings in Chicago, and other regions, including a data analysis for the **Los Angeles Better Buildings Campaign** as part of the **Energy Efficiency for All Initiative** with Natural Resources Defense Council. This year Elevate Energy will support strategic communications initiatives to policymakers to ensure these data inform energy efficiency program design. The team will also begin a three year research project funded by US Housing and Urban Development (HUD). Elevate, in partnership with Illinois Institute of Technology and Presence Health, will investigate the effectiveness of residential mechanical ventilation systems in homes in **reducing indoor air pollutants and improving asthma health outcomes**.

Communities and Cities

To support Elevate's focus on community scale energy solutions, the research team conducts demographic research at the community-level, including analyses of income and other demographics. This work supports myriad ongoing projects at Elevate, including the **Bronzeville Community of the Future** project, and the **Citi Foundation Progress Makers** initiative. The team will also deliver exploratory research and analysis for Elevate, including on water efficiency and affordability in Chicago and across the country.

Research Going Forward

In addition to the above projects, Elevate Energy's Research and Innovation Team will prioritize research efforts to improve **water efficiency** and growing affordability and health concerns regarding water; **community solar** and its relationship to low-income communities; **health impacts** in relation to energy efficiency; and, **community level approaches** to efficiency, solar, and resiliency.

For more information on Elevate Energy's research and innovation agenda or to inquire about research partnership opportunities, please direct inquiries to Rachel Scheu, Research Director at Rachel.Scheu@ElevateEnergy.org.