

Resource Management Commission Briefing: Building Technologies Proving Ground – DOE Grant

Kurt Stogdill

Manager, Green Building & Sustainability



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Selected for Department Of Energy Grant

- Through the Office of Energy Efficiency and Renewable Energy
- One of Seven projects Selected
- Other projects in California, Kansas, Rhode Island, Tennessee and Wisconsin
- Total of \$6 million awarded



DOE Selects Seven State and Local Governments to Establish "Proving Grounds" for Advanced Building Technologies

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The U.S. Department of Energy's (DOE's) Office of Energy Efficiency and Renewable Energy (EERE) selected two state energy offices, four local governments, and a State Judicial Council to install promising building technologies and systems in commercial and multifamily buildings that DOE expects to significantly improve energy efficiency, demand flexibility, and building-to-grid capabilities. DOE has awarded \$6 million through the [Building Technologies Proving Ground - Public Sector Field Validation Funding Opportunity](#) to governments in California, Kansas, Rhode Island, Tennessee, Texas, and Wisconsin. To learn more about how field-validation efforts like these advance DOE's priorities, [read this article](#).

DOE's Building Technologies Office and the Weatherization and Intergovernmental Programs Office's [State Energy Program](#) will fund and administer these seven competitively selected projects:

- **Austin Energy** will partner with ZOME, Resideo, and the New Buildings Institute (M&V) to install and evaluate the performance of a custom mesh network of thermostats, HVAC systems, and water heater controls with two-way communication and remote-access capabilities in 6-7 multifamily properties and 1,400 tenant units, half or more being affordable rent or low-income properties. These technologies will allow these buildings to shift their energy loads with an affordable and scalable approach to enhance their demand flexibility. If these technologies work as planned, residents could save \$60 to \$120 per year on their energy bills.

Objectives of Grant

- Validate innovative technologies for commercial buildings and the public sector
- Enhance the energy efficiency of buildings and provide flexibility of services to the electric grid
- Enable dynamic building interactions with the power grid that provide new value streams to commercial building owners
- Generate and publicly disseminate data on the field performance of new approaches to building technologies



Hallmarks of Austin Energy Project

- Targeting multifamily properties - up to five
- Up to 1,400 residences touched with a goal of half of them being low-income
- Providing demand response and energy efficiency
- Will leverage market-ready technologies



Approach

- Leverage existing mesh control networks and technologies
 - Thermostats
 - Water heaters
 - Other devices as applicable
- Work with aggregator(s) on a multifamily complex-wide basis
- Work with home automation vendors already in the space
 - Zome and Resideo were identified as vendors in the application
 - Will issue RFP to allow broader potential vendor participation



Novelty of the Austin Energy Approach

- Overcoming the challenge of the split incentive...properties where the tenants pay the bills and the owners have no incentive to pay for energy efficiency upgrades
- Provide incentives for both the property owners and tenants
- Incentives TBD, it is anticipated that savings for homeowners could range from \$60-120/year
- Allows grant to target traditionally challenging low income communities



Specifics of grant

- Three year project
- Total project anticipated to be approx. \$1.45 M
 - Approximately \$1 million from DOE
 - Austin Energy match approx. \$450,000 - largely comprised of incentives within existing budget
- Partnering with New Buildings Institute
 - Program design
 - Coordinating commissioning
 - Data collection and analysis
 - Reporting



Next Steps

- Preliminary negotiations with Department of Energy
 - Statement of Project Objectives/Project Plan
 - Budget
- Approval to accept grant from City Council
- Execute Contract with Department of Energy
- Execution of subcontracts
- Initiate grant



Thank You

Questions?

Kurt Stogdill

kurt.stogdill@austinenergy.com

512-322-6510

