

Silver Buckshot for Decarbonization from Beneficial Electrification

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www.energy.gov/eere/buildings



BTO Priorities

Research

- ✓ Reduce HP Cost applications
- ✓ Support Cold Climate Solutions
- ✓ Device Level Control Improvements for AFDD, Grid-interactive and Dual-Fuel
- ✓ Thermal Storage
- ✓ Low-GWP Refrigerants

Field Validation & Partnerships to de-risk adoption

- ✓ Develop national database and forum for HPs and HPWHs
- ✓ Multi-year partnerships focused on:
 - Cold climate heat pumps
 - Variable speed heat pumps
 - Dual fuel
 - AFDD
 - Demand flexibility solutions with controls and HVAC

Adoption Support Activities

- ✓ Contractor & Workforce Awareness and training
- ✓ Technical Information for Consumer Awareness
- ✓ Codes support
- ✓ Programs and support for new construction
- ✓ Funding opportunities to support programs fundamental to broader adoption



Currently holding Listening Sessions with States; please reach out to monica.neukomm@ee.doe.gov or david.nemtsov@ee.doe.gov if you would like to discuss further.

Results from DOE's First Connected Communities (aka Smart Neighborhoods)

Average Home Energy Use

Reynolds Landing (Hoover, AL)



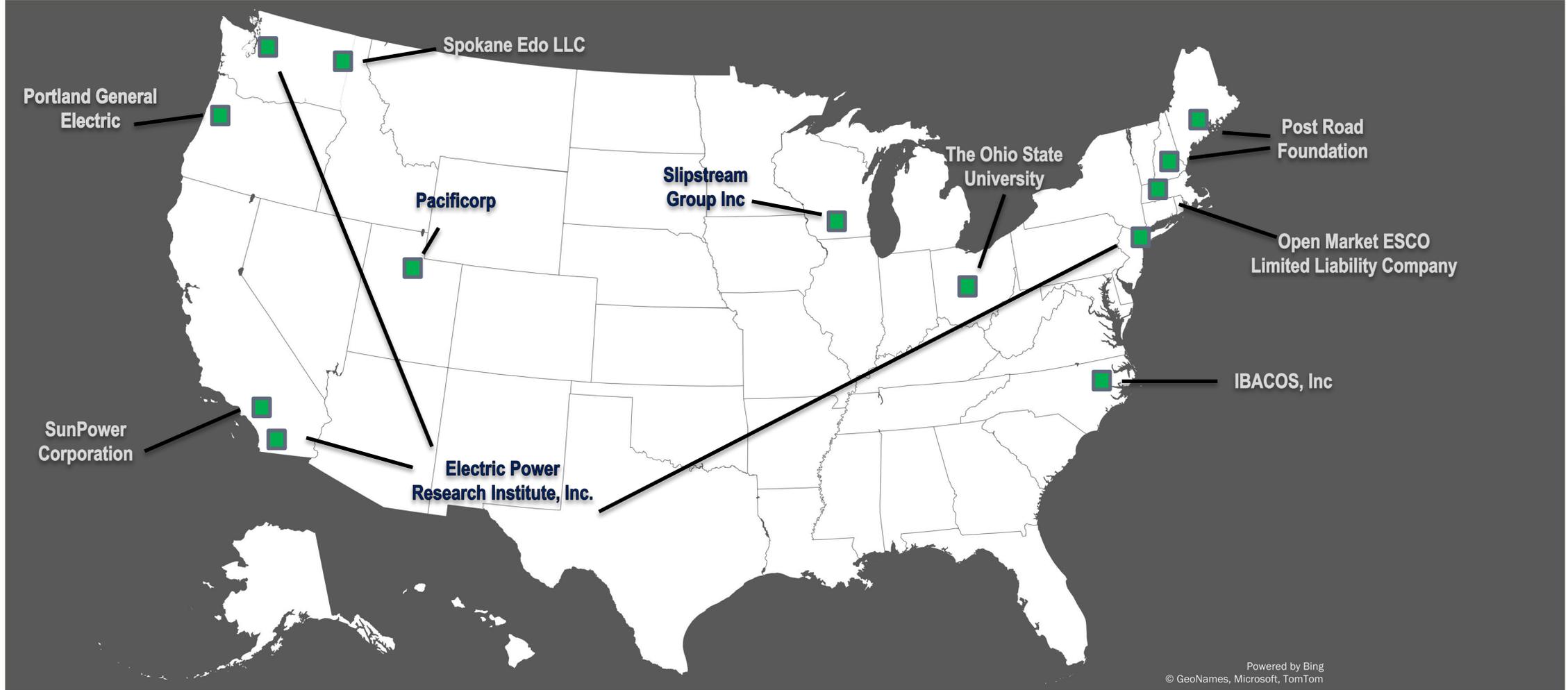
Alabama Power Smart Neighborhood® Idea Home. Image courtesy: [Alabama Power](#).



Altus at the Quarter (Atlanta, GA)



Location of Selected Award Communities



“These projects will help universalize technology that can maximize the efficiency and sustainability of America’s nearly 130 million buildings and make significant headway in the fight against climate change.”

- U.S. Secretary of Energy Jennifer M. Granholm
October 13, 2021

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Selected Projects

Applicant	Region					Building Type						DERS					Equity	EE
	Northeast	South	Midwest	Mountain	Pacific	New	Existing	Single-family	Multi-family	Commercial	Industrial	PV	BSS	EVC	CHP/District	Wind		
IBACOS, Inc.		X				X	X	X				X	X	X				ZERH- 30% new, 10-15% existing homes
Spokane Edo LLC					X		X	X	X	X		X	X	X			X	440-900 MWh reduction
The Ohio State University			X				X		X	X		X	X	X	X	X		10% or 35% vs 2017 EPC
Open Market ESCO LLC	X						X		X	X		X	X	X			X	30% reduction - 4,700 MWh/year
Portland General Electric					X		X	X	X	X		X	X	X			X	10%
SunPower Corporation					X	X		X				X	X	X				38% - 57% - ZERH
Post Road Foundation	X						X	X		X	X	X	X	X			X	16%
Slipstream Group Inc.			X				X			X		X	X	X				39%
PacifiCorp				X		X	X		X	X		X	X	X			X	(30% - 50%)
Electric Power Research Institute, Inc.	X				X		X		X			X	X	X			X	30%