Select ARPA-E Projects Demonstrating Market Engagement

ARPA-E measures the technical and market progress of its projects in a number of ways, including **private-sector investment**, **new company formation**, and **government partnerships**.

The projects listed below are those with private-sector investment, new company formation, and/or government partnerships as of **February 25, 2014**.

Private-Sector Investment *	
Agrivida	Engineering Enzymes in Energy Crops (OPEN 2009)
AutoGrid	Integration of Renewables Via Demand Management (GENI)
Calysta Energy	New Bioreactor Designs for Rapid Methane Fermentation (REMOTE)
Chromatin	Biofuels from Sorghum (PETRO)
City University of New York	Metacapacitors for LED Lighting (ADEPT)
Envia Systems	Long-Range Electric Vehicle Batteries (OPEN 2009)
FloDesign Wind Turbine	Mixer-Ejector Wind Turbine (OPEN 2009)
Fluidic Energy	High-Power Zinc-Air Energy Storage (GRIDS)
General Compression	Fuel-Free Compressed-Air Energy Storage (GRIDS)
Massachusetts Institute of Technology	Electroville: Grid-Scale Batteries (OPEN 2009)
OPX Biotechnologies	Engineering Bacteria for Efficient Fuel (Electrofuels)
Phononic Devices	Improved Thermoelectric Devices (OPEN 2009)
Primus Power	Advanced Flow Battery Electrodes (GRIDS)
QM Power	Efficient, High-Torque Electric Vehicle Motor (REACT)
Sion Power Corporation	Lithium-Sulfur Batteries (BEEST)
Smart Wire Grid	Distributed Power Flow Control (GENI)

Stanford University	The All-Electron Battery: A Quantum Leap Forward in Energy Storage (BEEST)
Sun Catalytix	Energy from Water and Sunlight (OPEN 2009)
Transphorm	Transistors for Electric Motor Drives (ADEPT)
Varentec	Dynamic Power Flow Controller (GENI)
1366 Technologies	Cost-Effective Silicon Wafers for Solar Cells (OPEN 2009)
24M Technologies	Semi-Solid Flowable Battery Electrodes (BEEST)

**** IPOs were also issued by ARPA-E awardees Ceres (2012) and Ideal Power Converters (2013)***

New Company Formation	
Alveo Energy	Prussian Blue Dye Batteries (OPEN 2012)
City University of New York	Flow-Assisted Alkaline Battery (GRIDS)
Energy Storage Systems	Iron Flow Battery (SBIR/STTR)
Harvard University	Slippery Coatings to Reduce Friction and Energy Loss (OPEN 2012)
Lawrence Berkeley National Laboratory	Backpack-Mounted Building Efficiency Modeling (OPEN 2012)
Massachusetts Institute of Technology	Electroville: Grid-Scale Batteries (OPEN 2009)
Michigan State University	Shockwave Engine (OPEN 2009)
Oregon State University	Gas-Compressing Engine (MOVE)
Otherlab	Small Mirrors for Solar Power Plants (OPEN 2012)
Otherlab	Intestinal Natural Gas Storage (MOVE)
Pacific Northwest National Laboratory	High-Efficiency Adsorption Chillers (BEETIT)
Sila Nanotechnologies	Double Energy Density for Lithium-Ion Batteries (SBIR/STTR)
SRI	Sorbent-Based Natural Gas Tank (MOVE)

Stanford University	Behavioral Initiatives for Energy Efficiency (OPEN 2009)
Texas A&M Agrilife Research	Fuel from Tobacco and Arundo Donax (PETRO)
Texas A&M University	Stimuli-Responsive Metal Organic Frameworks (IMPACCT)
University of California, Los Angeles	Liquid Fuel from Renewable Electricity and Bacteria (Electrofuels)
University of California, Santa Cruz	Efficient Collection of Concentrated Solar (OPEN 2012)
University of Florida	Solar Thermochemical Fuel Production (HEATS)
University of Maryland	Elastic Metal Alloy Refrigerants (BEETIT)
University of Notre Dame	Phase-Changing Ionic Liquids (IMPACCT)
Virginia Commonwealth University	Carbon-Based Magnets (REACT)
24M Technologies	Semi-Solid Flowable Battery Electrodes (BEEST)

Government Partnerships	
ABB	Magnetic Energy Storage System (GRIDS)
ADMA Products	Membrane Dehumidifier (BEETIT)
Alliant Techsystems	Supersonic Technology for CO_2 Capture (IMPACCT)
Massachusetts Institute of Technology	Electroville: Grid-Scale Batteries (OPEN 2009)
Cree	Utility-Scale Silicon Carbide Power Transistors (ADEPT)
DAIS Analytic Corporation	Dehumidifying Air for Cooling and Refrigeration (BEETIT)
Foro	Laser-Mechanical Drilling for Geothermal Energy (OPEN 2009)
General Electric	CO_2 Capture with Liquid-to-Solid Adsorbents (IMPACCT)
Georgia Tech Research Corporation	Innovative Miniaturized Heat Pumps for Buildings (BEETIT)

Infinia Corporation	High-Efficiency Stirling Air Conditioner (BEETIT)
Pacific Northwest National Laboratory	High-Efficiency Adsorption Chillers (BEETIT)
PolyPlus Battery Company	Rechargeable Lithium-Air Batteries (BEEST)
Primus Power	Advanced Flow Battery Electrodes (GRIDS)
Research Triangle Institute	CO_2 Capture and Regeneration at Low Temperatures (IMPACCT)
Sion Power	Lithoum-Sulfur Batteries (BEEST)
Smart Wire Grid	Distributed Power Flow Control (GENI)

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