

Digest of Green Reports and Studies

Title	<i>Berkeley Lab's Battery Team Looks Beyond Vehicles to the Electric Grid</i>
Author	Julie Chao
Organization	Lawrence Berkeley National Laboratory
Author Contact	JHChao@lbl.gov
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URL	http://newscenter.lbl.gov/feature-stories/2010/07/29/battery-team-looks-beyond-vehicles-to-the-electric-grid
Summary	<ul style="list-style-type: none"> • Lawrence Berkeley National Laboratory has received \$1.6 million in American Recovery and Reinvestment Act funds from the Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) "to develop a novel storage device for the electric grid." • Lawrence Berkeley National Laboratory is one of 43 research projects that were awarded these funds to "improve how the U.S. uses and produces energy." • The goal of a "Grid-scale storage" device needs to be developed in order to permit the use of more renewable energy, such as solar and wind. • The device would be able to collect solar and wind energy; store this energy; and distribute it throughout the day when energy needs are in high demand. • Currently, operators have to "balance supply with demand on the instantaneous basis people expect." • Lawrence Berkeley National Laboratory is trying to develop a flow battery. • "Flow batteries are different from conventional batteries in that the energy and power are separated. Flow batteries are like fuel cells." • "At the end of this ARPA-E funded two-year project, Berkeley Lab hopes to have a proof-of-concept for a flow battery that will have a high round-trip efficiency of 80 percent and cost less than \$100 per kilowatt-hour of energy."
Key Findings	<ul style="list-style-type: none"> • Bringing together a group of people that have "expertise to solve all these problems" (development of the flow battery).
Recommendations	N/A
Definition of "Green"	N/A
Methodology	Interview
Data Sources Cited	<ul style="list-style-type: none"> • U.S. Department of Energy Advanced Research Projects Agency-Energy (ARPA-E). • Berkeley Lab, Lawrence Berkeley National Laboratory.
Report Geography	Berkeley, California
Green Occupations Cited	N/A
Green Industries Cited	Utilities
Keywords	Bosch Group; DuPont; Flow Battery; Fuel Cells; Grid-Scale Battery; Grid-Scale Storage; Hydrogen-Bromine Chemistry; Nanostructured Thin Film Electrocatalyst; Renewable Energy; Solar; 3M; Wind.
Legislation Cited	American Recovery and Reinvestment Act
Bibliography (Y/N)	N/A
Reviewer Name/Org	Tammy Gregory/LMID/ORG

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