

Liquid battery could charge green energy

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The sun is reflected in a solar panel. Engineering professor Donald Sadoway on Thursday used an old-school chalk board at the prestigious TED gathering to write the formula for a liquid battery that could one day cut the need for new power plants. Inexpensive batteries made from liquid metal could store electricity from solar panels, wind farms, or existing generation facilities.

Engineering professor Donald Sadoway on Thursday used an old-school chalk board at the prestigious TED gathering to write the formula for a liquid battery that could one day cut the need for new power plants.

"The way things stand, [electricity demand](#) must be in constant balance with supply," Sadoway told the tech-savvy audience in southern California.

Inexpensive batteries made from liquid metal could store electricity from solar panels, [wind farms](#), or existing generation facilities and save it for when it is most needed.

That would be a major change from today's consume-it-now-or-lose-it systems.

"The battery is the enabling device here," he said. "With it we could draw electricity from the sun even when the sun doesn't shine."

Sadoway and his team of students at Massachusetts Institute of Technology were so confident in their creation that they started [Liquid Metal](#) Battery Corporation and plan to have bistro-table size models out in two years.

Microsoft co-founder [Bill Gates](#) is among the company's backers.

The company plans to eventually bring to market a liquid battery the size of a 40-foot shipping container and capable of holding enough electricity to serve the daily needs of 200 typical US households.

"You could have these batteries in the basements of buildings drinking up power in the wee hours," Sadoway said.

"It means we don't have to build more plants, power lines just for peak use," he continued. "The limits are way out there, not only in terms of what it can do for renewables."

The key metals in the battery are common [vanadium](#) and magnesium, the professor explained as he chalked a basic chemical equation on the board.

TED (Technology, Entertainment and Design) is a series of conferences designed to present cutting-edge ideas. Speakers are given only 18 minutes to give deliver their pitch.

More information: [blog.ted.com/2012/02/29/reinve ... -sadoway-at-](http://blog.ted.com/2012/02/29/reinve...-sadoway-at-)

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