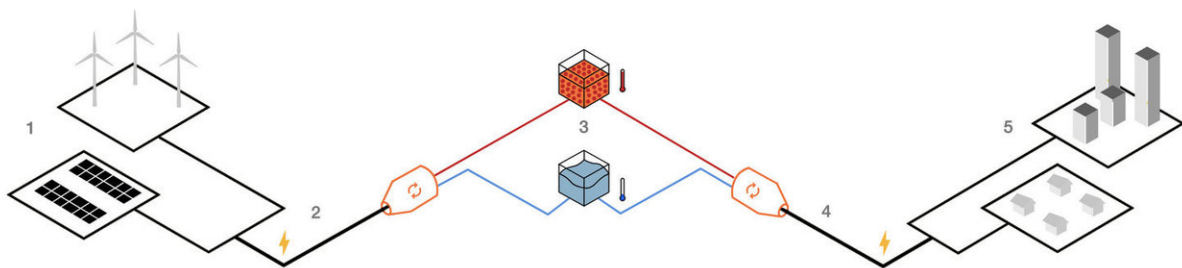


Malta energy storage system is looking forward to first pilot

December 23 2018, by Nancy Cohen



Credit: Malta

Malta has received a round of funding and is graduated from "project" to group that can sail. The Cambridge, MA-based company is focused on the storage of electro-thermal energy and the funding put the group in celebration mode this month. In return, the company is turning up the volume on its potential role in the future of energy storage—namely, working out salt-based electro-thermal energy storage.

Brian Dowling, *Xconomy*, reported that Malta is heading off into the world "with a \$26 million Series A funding [round](#) led by Breakthrough Energy Ventures, the climate change fund led by Bill Gates."

Liu Shunxing, chairman, Concord New Energy Group, said that "innovation in energy [storage](#) technology will become [critical](#) for using

clean energy effectively." Malta backers include the Concord New Energy Group and Alfa Laval AB, a Swedish industrial company, said [Bloomberg](#).

The concept is built on already established principles for a system that stores energy as heat in molten salt and as cold in a chilled liquid. The system can store [electricity](#) for days or weeks until needed, said the company's news release.

The team was originally "Project Malta" at [Alphabet's X](#), the group of inventors and entrepreneurs who build and launch technologies.

What is the source of the electricity stored? It can come from wind, sun or fossil fuels, in any location. That gives it an advantage over some existing grid-scale power storage technologies—no mountains or caves, for example, are needed. Bloomberg said that "Malta's system can be located almost anywhere, including near solar panel arrays and wind turbines."

Malta's solution is trying to address the major renewables challenge which is energy storage. "A lack of affordable, reliable grid-scale energy storage is currently limiting the shift to [renewable energy](#)," said Raj Apte, science advisor at X.

A CNBC article about the project in June said the plan was "to store thermal energy, [converted](#) from solar and wind electricity, in giant tanks of molten salt. The technique could prove cheaper and more efficient for longer-term storage of renewable energy."

The company, meanwhile, shares more details about how their proposed solution works. "Malta energy storage system takes electricity, converts and stores that electricity as heat, and then converts it back to electricity to be redistributed on the electric grid. In charge mode, the system

operates as a heat pump, storing electricity as heat in molten salt. In [discharge](#) mode, system operates as a heat engine, using the stored heat to produce electricity."

They said the system is made up largely of conventional components and raw materials – "steel, air, salt, and commodity liquids."

MIT Technology Review earlier this year make the point that "Cheaper and better forms of grid storage are considered essential to handle fluctuating renewable sources like wind and solar as they start to contribute a greater portion of total electricity [supplies](#)."

What's next? "Malta will work with industry partners to turn designs that were first developed and refined at X into industrial-grade machinery for a pilot system," said the company news release.

Malta CEO Ramya Swaminathan said the challenge ahead is about design and manufacturing, in *Xconomy*. Swaminathan said customers were expected to come from a variety of points in the [energy](#) system. Such as? She said they expect "developers with wind or solar projects who want firm power, to grid scale applications that can be in the hundreds of megawatts range, to critical backup for data centers, to isolated grid systems like island economies."

More information: www.maltainc.com/

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