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Here's Every Company That Entered the US Energy Storage Game in 2016

A new year means new resolutions, but here at GTM, we don't care about what you do at the gym.

The real goal-setters out there are the ones committing to enter the fast-changing world of energy storage. It takes confidence, determination and a willingness to keep showing up after the thrill of a new product launch has faded.

We don't know who will be taking that leap in 2017, but the figures are in for 2016. Here is a pretty comprehensive list of the companies that launched their first U.S. energy storage product or created a new business to serve that market last year. If we missed anybody, let us know in the comments section.

Sunrun launches BrightBox solar-plus-storage product

The national residential solar specialist took its first step into the storage world with BrightBox. The solar-plus-storage combo comes with no-money-down lease or cash deal options, and first hit the streets in Hawaii last spring. Sunrun expanded it to California Dec. 14, and promised more states to come.

The key applications the company has touted are optimized solar self-consumption and emergency backup for when the grid goes down.

As net energy metering programs start to fade and the compensation for rooftop solar generation declines, we can expect to see solar companies turning to storage to add more value and attract new customers, said Ravi Manghani, energy storage director at GTM Research.

"In a lot of these markets, the early adopters have already gone solar," he said. "The next layer of customers likely to install solar are probably looking for other benefits, which can be served by storage." Benefits like intelligent load management, resilience during blackouts and the ability to produce solar energy without exporting, for instance.

Most solar installers won't have the wherewithal to design a product in-house like a Sunrun or SolarCity can, but they can easily procure storage from manufacturers and install it themselves.



Orison funds home storage products through Kickstarter

Who needs VC backing when you can wrangle some cash online?

This stylish San Diego startup nabbed an impressive \$350,000 through a Kickstarter campaign that wrapped up in March. The company is pitching storage as a true home appliance: The two options, a sleek wall panel or a standing unit that looks more like a futuristic lamp, simply plug into a wall socket and store energy for that circuit. The freestanding unit even comes with built-in Bluetooth speakers.

CEO Eric Clifton told Tech Insider that his team designed these batteries to be easily installed by the customer, in contrast to the 200-pound Tesla Powerwall. Orison also cuts out the inverter and installation soft costs that come with other battery systems.

As of December, the company was still working out some kinks ahead of UL compliance and the start of manufacturing, so it's too early to know how well the product will perform. That said, the move to treat storage systems less like heavy equipment and more like consumer electronics is a promising one.

Lockheed Martin blasts into the energy arena

Aerospace heavyweight and Pentagon darling Lockheed Martin reorganized the energy-related businesses it had picked up along the way and unveiled Lockheed Martin Energy in March. One key pillar of that is energy storage.

Unusually, Lockheed tackles the market with both lithium-ion and flow battery products. The company designed a wholly integrated battery system for the former, while the latter relies on technology acquired from the startup Sun Catalytix. Lockheed has touted this flow formula as a cheaper, safer challenge to the incumbent flow chemistries, namely vanadium redox.

Commercializing a brand new battery chemistry takes time and money. As GTM's Eric Wesoff pointed out, that's something this company has in bulk: "Lockheed Martin comes to the battle with more than 100,000 employees worldwide and a market cap of \$69.1 billion, as well as the advantage of being the recipient of nearly 10 percent of all funds paid out by the Pentagon in 2013."

Mysterious startup "concept by US" creates all-in-one home battery

The curiously capitalized company, evidently run and funded by a single German entrepreneur, launched the Powerstation 247 in March.

The Florida-based firm touts the all-in-one nature of its creation -- it comes with all the necessary inverters and supporting hardware in one refrigerator-sized unit. That was a departure from all the companies that made a nice box and then left it to installers to figure out inverters and the rest of the wiring. (Tesla has since announced plans to include an inverter with new Powerwall units, but it's still not clear when that will actually ship.)

The company website takes a homey approach to pitching the Powerstation. A smiling man in sandblasted jeans casually reclines against the large metal box, as an uncredited testimonial asserts, "I am independent from utility companies, politics and rising electricity costs." This might not be the one that beats Tesla.

That said, there aren't many battery startups in the Southeastern U.S., and there are a lot of grid reliability concerns in that region tied to extreme weather events. There might be a profitable niche in finding those local customers who have money and want to store clean power, but are overlooked by the companies focused on the more mature storage markets of California and Hawaii.

Leclanché crosses the Alps, arrives in North America

This long-time Swiss battery maker moved into the U.S. with a new North America subsidiary in April. Leclanché stands out as one of the few lithium-ion cell manufacturers based in Europe, and one of the few not based in Asia. It also assembles the cells into modules and systems. It has been building batteries for more than a century, which will likely be a boon when competing with younger companies that are still fighting to prove their bankability.

Caterpillar launches Cat Microgrid product suite

The heavy-equipment company has years of experience making diesel and gas generators, with a specialty in rugged systems for weak- or off-grid deployment. Now it's throwing storage into the mix.

The Cat Microgrid, launched in May, combines thin-film solar panels, energy storage and diesel or gas gensets to keep the lights on in remote locations, like cell towers, mining sites and off-grid communities in emerging markets.

"The central piece is still a generator, and storage is added as a complementary technology that dramatically reduces diesel requirements," GTM Research's Manghani said. "You can rely on storage for short-duration startup and ramping, and

then shift to backup generation for much longer duration needs. It can definitely make the whole system more efficient and cleaner to operate.”

Caterpillar isn't looking to eliminate the fossil fuels just yet, then, but it does tout the solar and storage as a great way to reduce the fuel costs and harmful emissions. The gensets are there to kick on when solar and storage alone won't meet the load. The company still has money to make on those gensets, but it's laying the groundwork for seamlessly transitioning to post-fossil fuel offerings when the time is right.

Borrego Solar launches energy storage division based in Massachusetts

Whereas Sunrun added storage for the home, Borrego now provides it on a massive scale. This solar veteran serves utility-scale and large commercial and industrial clients, and will offer storage with third-party financing and an eventual “storage PPA” deal, the company said in October.

“The move to solar-plus-storage is very natural given that a lot of C&I customers are not just looking to reduce kilowatt-hours but kilowatt usage, to benefit from demand-charge mitigation and those savings,” Manghani said.

As I reported previously, Borrego has weathered a lot of storms that took down other solar companies along the way. Its entrance indicates the storage industry is looking more like a sure bet than a gamble. Borrego doesn't want to see its large-scale solar customers going to some other company for storage.



Mercedes storage is coming to town

In November, parent company Daimler AG created Mercedes-Benz Energy Americas, LLC to sell stationary storage of all sizes to the U.S. market. Like Tesla, Mercedes has ramped up battery production for its electric vehicles, and now seeks to commercialize that technology as a standalone, stationary product.

Daimler tapped former Sonnen, Inc. CEO Boris von Bormann to lead the effort, so he's coming with several years of practice at translating a German storage product for American customers. Here, though, he'll be working with much broader institutional backing, and a brand that has already achieved widespread recognition.

“An average homeowner may not invest time in looking at all the different spec sheets available across the market, and may just go with the name they are familiar with,” Manghani said. “Mercedes-Benz is a brand name the average customer is very familiar with.”

Just how competitive this newcomer will be depends on how much the systems cost, and those details have not yet been released. That info should be coming soon, though, because we've entered 2017.