



The new batterification macrotrend and our battery market forecast

By Sara Patnaude

December 6, 2021

Batteries are playing a huge role in the global energy transition and are growing at a record rate. In the stationary storage market, batteries are at the heart of utility-scale energy storage projects, whether as stand-alone solutions or as part of solar-plus-storage deployments. In the mobile storage market, batteries are powering the electric vehicle (EV) revolution. Batteries are finding their way into new devices and applications every day from waste management and public transportation to bicycles and industrial equipment.

But how will all this affect utility programs and battery manufacturers' production, investment decisions, and reliability? This is all part of a macrotrend we're keeping an eye on and have been referring to as batterification.

Batterification trends to watch out for

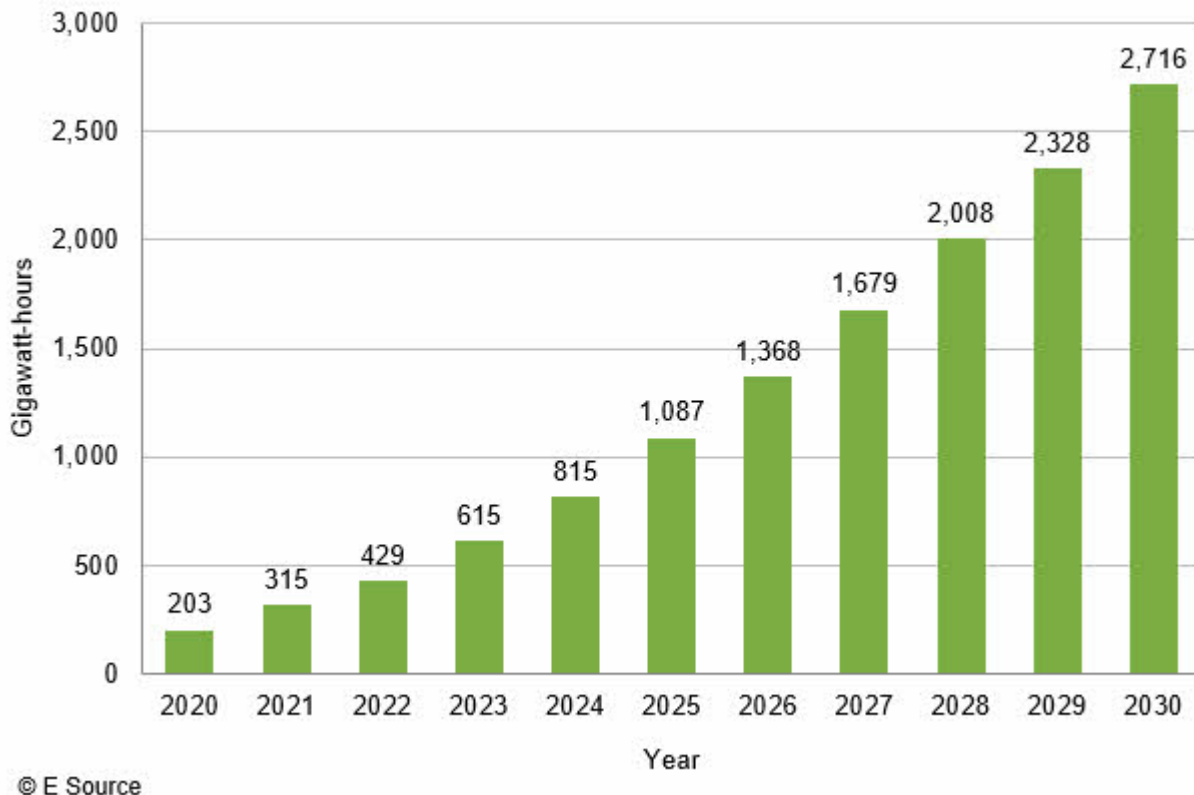
All this battery adoption is fueling dramatic growth, and we have the latest forecasts to share. Here are a few of our recent findings.

Market size:

- We expect the global battery market will grow to 315 gigawatt-hours (GWh) in 2021—that's an increase of 55% from 2020 (**figure 1**).
 - In 2030 we expect the market to reach 2,716 GWh, nearly 8 times more than in 2021.
 - Total lithium-ion (Li-ion) battery energy capacity will grow 11 times by 2030, reaching 2 terawatt-hours.
-

Figure 1: Overall battery market demand forecast

Increasing sales of EVs in Europe as well as global purchases of electric bikes and other micromobility vehicles account for most of the increase in the global battery market.



Battery cost and performance:

- The average EV Li-ion battery cost \$161 per kilowatt-hour in 2021. That amount will decline to \$154 in 2022 and \$99 in 2030.
- The average duration of discharge for long-duration stationary storage (defined as longer than 4.0 hours) was 4.9 hours in 2021 and will increase to 7.2 hours in 2030.

Innovations to watch:

- Zinc-bromine flow, vanadium redox, and iron-based flow batteries are on pace to overtake Li-ion batteries within the decade on some cost and performance parameters.

Our battery market forecast to 2030

During our webinar [Battery market forecast to 2030](#), Sam Jaffe, vice president of Battery Storage at E Source, shared his insights on and predictions for the battery storage market, including:

- The battery market's current growth trajectory
- Drivers of future growth

- Potential headwinds in the stationary energy storage and mobile battery markets
- The implications of all the above on your business, operations, and goals

[Watch the recording](#)