

EV Battery Prices Drop: Could This Be the End of Gas Cars?



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Electric vehicle (EV) battery prices have taken a massive dive in 2024, falling **20%** to a historic low of **\$115 per kilowatt-hour (kWh)**. For years, battery costs have been the single biggest hurdle to making EVs affordable for the masses. But now, with prices dropping at their fastest rate since 2017, industry experts believe we're on the cusp of EVs reaching **price parity** with gas-powered vehicles.

So, what's causing this shift? Why is China leading the way? And what does this mean for you as a buyer? Let's break it down—plus, don't miss the data-driven analysis that proves we're closer to an electric revolution than ever before.

What's Behind the Drop in EV Battery Prices?

The recent plunge in battery prices isn't by accident—it's fueled by several key factors working together:

1. Oversupply in Production

Battery manufacturers, especially in China, have ramped up production to unprecedented levels. In fact, in 2024 alone, China is meeting **92% of global battery demand** for EVs and stationary energy storage. This oversupply has driven costs down worldwide, reshaping the global **battery market**.

2. Falling Material and Component Prices

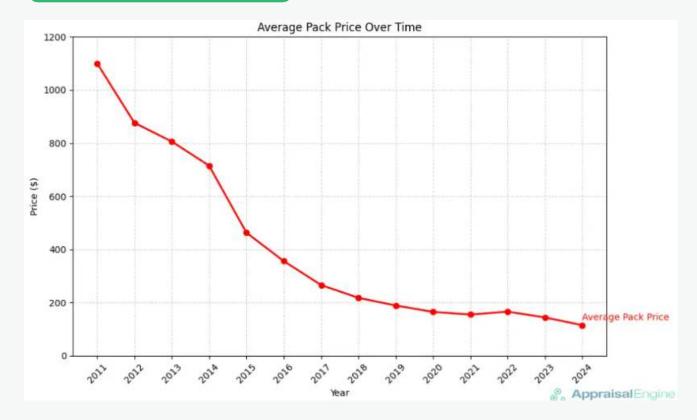
The price of lithium and other key materials like cobalt and nickel has declined significantly. With advancements in mining processes and supply chain efficiency, the **cost of battery packs** has fallen, making EV production cheaper.

3. The Rise of Lithium Iron Phosphate (LFP) Batteries

LFP batteries are becoming the go-to option for automakers. They're cheaper, safer, and more stable compared to traditional nickel-based **lithium-ion battery packs**. While LFP batteries have a slightly lower energy density, their affordability makes them a game-changer for EV production.

Charting the Decline: A Visual Look at EV Battery Prices

To see the dramatic progress, here's a chart illustrating how EV battery prices have plummeted over the years:



Average EV battery pack prices (\$/kWh) from 2011 to 2024. Source: BloombergNEF

What Does the Data Tell Us?

The chart shows a stunning **90% reduction** in EV battery prices since 2011:

- **2011-2015**: Prices fell from over **\$1,200/kWh** to below **\$350/kWh**—thanks to improved technology and increased production capacity.
- 2016-2020: The decline slowed but remained steady, dropping to around \$150/kWh.
- **2021-2024**: The most recent price drop, falling to **\$115/kWh**, represents the largest decline since 2017 and sets the stage for prices to dip below **\$100/kWh** by **2026**.

Goldman Sachs analysts confirm that this long-term trend reflects the growing maturity of the **battery market** and the increasing cost efficiency of production. This decline in the **average price** of battery packs is making EVs more accessible for buyers.

The Battery Industry at a Glance



The global **battery market** is experiencing unprecedented growth and transformation. From production and prices to forecasts and market leaders, here's a closer look at the driving forces:

- **Goldman Sachs' Projections**: Reports from Goldman Sachs highlight the steady drop in the **cost of battery packs** and suggest further declines will enable EVs to reach cost parity with gas cars by 2026.
- **Battery Cell Innovations**: Advances in **battery cells** are improving efficiency and reducing production costs. As manufacturers adopt LFP and next-gen battery technologies, this trend will accelerate.
- **Technological Advancements**: While lithium-ion battery packs remain the dominant choice, alternative technologies like solid-state batteries could disrupt the market in the future.

The battery industry's focus on affordability and efficiency is not just reshaping electric vehicles—it's driving an energy revolution.

China's Role: Why It's Leading the Battery Revolution

China is at the forefront of driving lower EV battery costs. Here's why:

- Massive Production Capacity: Chinese manufacturers are producing batteries at scale, creating oversupply and pushing costs down.
- **Government Support**: Subsidies and incentives make Chinese EVs, such as BYD's models, more affordable in their domestic market.
- **Technological Leadership**: The country is leading the shift toward LFP batteries, which offer a perfect blend of affordability and safety.

Final Thoughts

The record drop in EV battery prices marks a turning point for the automotive industry. With costs approaching the \$100/kWh milestone, EVs are on track to become as affordable—and eventually cheaper—than gasoline-powered vehicles.

So, what about you? Are you ready to make the switch to electric, or will you wait for even more advancements? Either way, the future of driving is electric, and it's arriving faster than anyone expected.

