

Form Energy Iron-Air Battery vs Lithium-ion Storage for California's Microgrid Revolution

Why California's Grid Needs Both Iron and Lithium

It's 3AM in a Bay Area microgrid powered by solar. The lithium-ion batteries installed at sunset are already drained, but the iron-air units just started their overtime shift. This isn't sci-fi - it's the future taking shape across California's energy landscape where Form Energy's iron-air batteries complement existing lithium-ion storage systems.

The Odd Couple of Energy Storage

These two technologies couldn't be more different:

Lithium's sprint: Delivers 90-95% efficiency for short bursts (think Tesla Powerwalls handling evening peak demand)

Iron's marathon: Operates at 50-70% efficiency but stores 100+ hours of energy (perfect for cloudy weeks)

California's recent blackout drills revealed a harsh truth - our current lithium-dominated systems are like Olympic sprinters trying to run ultramarathons. Enter Form Energy's iron-air innovation that stores electricity through controlled rusting (yes, you read that right).

Cost Breakdown That'll Make You Smile

Let's talk numbers even your accountant would love:

Technology

Cost/kWh

Storage Duration

Raw Material Cost

Lithium-ion

\$80+

4-8 hours

\$\$\$ (Cobalt, Nickel)

Iron-Air

Web:

<https://www.onepower.pl>