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OB3's Impact on U.S. Energy Storage: A Bump – or a Fork – in the Road?

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The U.S. Battery Energy Stationary Storage (BESS) landscape is being buffeted by two major policy shifts: first, changes to the subsidy regime for BESS and manufacturing—particularly the imposition of Foreign Entity of Concern (FEOC) restrictions under the One Big Beautiful Bill Act (OB3), which disqualify FEOC-linked content from key tax credits; and second, steep increases in tariffs on battery imports.

Storage industry observers are divided over how significant these developments really are for the U.S. sector in the medium and long term in terms of costs, supply chains and the development of a domestic energy storage industry. "Bumpists" point to the sector's ability to grow rapidly before qualifying for the Investment Tax Credit (ITC), the potential for supply chain adjustment and the powerful tailwinds powering the sector. "Forkists" point to the dramatic potential cost increases, headwinds faced by intermittent renewables, whose growth underpins the value of storage and the severe challenges of standing up a domestic BESS supply ecosystem in the tight timeline required by the OB3.

As we argue here, the industry could be in for some major changes, with starkly diverging implications for different industry participants.

What has changed?

For BESS, the current regime's crackdown on foreign suppliers, especially China, via multiple mechanisms, will have a significant impact. While OB3 does not restrict the level and timing of tax incentives for BESS as adversely as it does for PV and wind, it imposes much stricter restrictions on permissible countries of origin for components. Combined with tariffs and the current state of the global BESS supply chain, these changes will present significant cost challenges for BESS in the U.S.

The advanced manufacturing tax credit under 45X – designed to foster the development of a domestic BESS supply ecosystem – remains, with a provision of $35/kWh per battery cell produced and sold in the U.S., phasing out over a five-year schedule starting in 2029.[1] More critically, the new bill tightened restrictions around FEOC and domestic content requirements based on a Material Assistance Cost Ratio (MACR) of at least 60% non-FEOC sourced in 2026, rising to 85% in 2029. The Production Tax Credit (PTC) and ITC under 48E remain for energy storage projects and phase out over five years starting in 2033 as under the IRA. However, for projects starting construction from 2026 onward, strong FEOC restrictions are applied. The MACR must be greater than 55%.

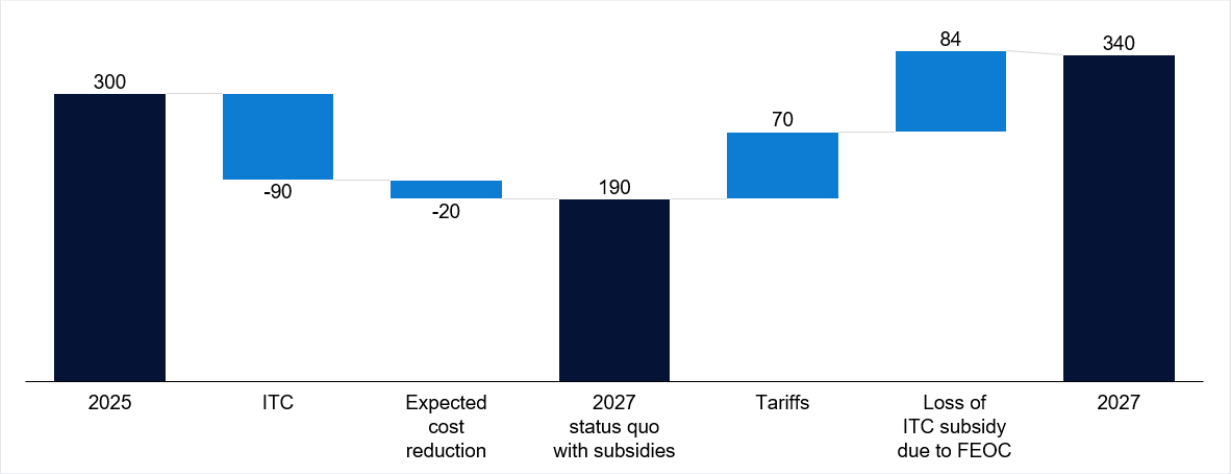
The high level of tariffs on BESS systems and components is the other key development under the current administration. At the time of writing, Chinese-made BESS units will face an effective rate around 60% from 2026, driven by a 34% reciprocal tariff (from August 1, 2025) plus a 25% Section 301 tariff on battery components (Increasing from 7.5% on January 1, 2026). Additionally, antidumping/countervailing duties on anode materials – particularly Chinese graphite – can start from 11.58% (for countervailing duties) and a preliminary 102.72% (for anti-dumping penalties), though these will affect cell components and cells rather than battery enclosures. Broader Section 232 tariffs – 50% on steel, aluminum and copper – will further increase costs for the raw materials used in enclosures and balance of system (BOS) components, potentially raising the impact to an 80% tariff on BESS systems. For systems imported from South Korea and Japan, there is a 25% reciprocal tariff as of July 14, 2025.

Cost impacts

Higher tariffs and FEOC-related limitations on the ability to source low-cost Chinese supply could lead to ~80% increases in front-of-the-meter (100 MW, 400 MWh) storage system prices in the U.S. in 2027 compared to expected prices pre-OB3. The actual impact will depend on several factors, including changes to developers' sourcing strategies, the "final" applicable mix of tariffs, the willingness of suppliers to absorb cost increases, any changes in the pace of cost improvements and, most critically, the development of new supply chains not dependent on FEOC (i.e., Chinese) supply. Our focus below will be on the potential evolution of the supply chain.

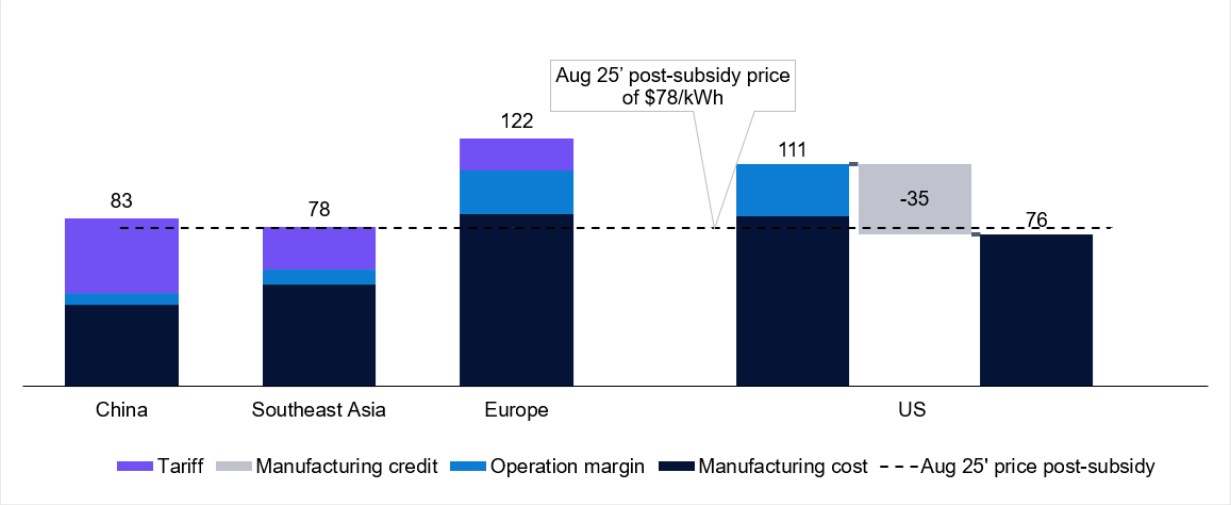
[1] The 45X credit under the IRA provides $35/kWh for battery cells from 2023 to 2029, with a phase-out starting in 2030 and ending in 2032.

Figure 1: 100MW, 400MWh BESS system in U.S. – in 2027 ($/kWh)



To understand the cost implications, we examine the four key battery supply pathways into the U.S.: domestic, European, Southeast Asian and Chinese, starting with battery cells, as illustrated in Figure 2. By 2027, Chinese LFP cells are expected to cost around $40/kWh and enjoy gross margins of up to 15% (current tier 1 LFP cells cost ~$45/kWh with similar margins), making them the lowest-cost source of supply—with additional headroom to lower prices further by compressing margins if needed. However, they will face multiple, steep tariffs amounting to a minimum of ~80%.[2]

Figure 2: LFP battery cell cost in US by source – in 2027 ($/kWh)



[2] As the antidumping duties on anode are preliminary plus the tariffs on steel, aluminum and copper would result into a higher tariff rate of 80%.

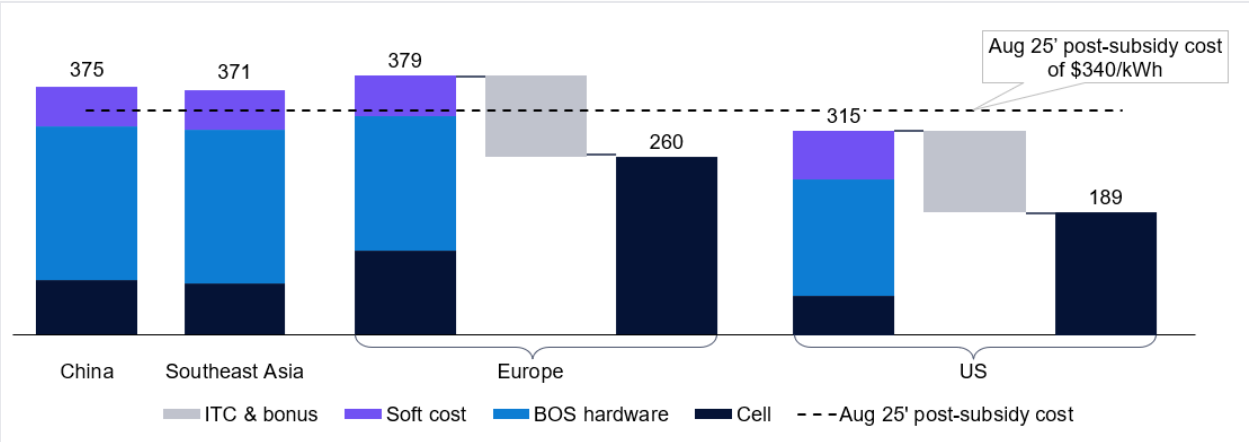
Southeast Asia could become a supply alternative, resulting from a wave of investment from Chinese firms, e.g., REPT Battero and Gotion, but current capacity is negligible and faces tariffs ranging between 24–49% (an average is illustrated in Figure 2).

European manufacturing costs would mirror U.S. costs and would be subject to 15% U.S. tariffs (to be further determined in August 2025). Most upstream materials are still Chinese-sourced, e.g., cathode active material (CAM) and precursor. In any case, potential LFP batteries manufactured within the EU are expected to serve the European electric vehicle market.

With the benefit of manufacturing tax credits plus the avoidance of tariffs faced by foreign rivals, U.S.-made cells could be competitive by 2027. U.S.-made cells could qualify for the $35/kWh 45X credit before it starts its five-year phaseout starting in 2029, but anode and cathode supply, which account for 15–20% and 40% of LFP cell costs, respectively, would need to be produced outside of China to meet MACR thresholds. Additionally, the 22.5 GWh of non-PFE LFP cell manufacturing capacity for BESS that is currently slated to come online will fall short of the demand of ~50 GWh (pre-OB3 forecast by Woodmac).

The story at the storage system level is similar (see Figure 3). To the extent U.S. manufacturers are able to access sufficient domestic, non-FEOC inputs, they can achieve a substantial cost advantage relative to foreign suppliers. They will benefit from an additional 10% tax credit if 100% of "construction materials" (e.g., steel or iron) are U.S.-made. The rest of the materials used in the project are "manufactured products" (e.g., battery pack, inverter) that must be at least 55% non-FEOC made initially (projects under construction in 2024 or earlier), increasing to 75% over time. That said, standing up a domestic supply chain of sufficient scale within the time frames defined by OB3 appears unlikely—at least at the moment—as discussed further below.

Figure 3: 100MW, 400MWh BESS system in U.S. by cell & BOS source – in 2027 ($/kWh)



To reiterate, while BESS systems in 2027 that meet stringent FEOC standards and avoid tariffs have the potential to be slightly less expensive than they were (post-subsidy) in 2025, and substantially cheaper than Chinese or Southeast Asian imports, they will likely be only slightly cheaper than Chinese imports due to the inability to build a domestic supply ecosystem in time.

Supply chain implications

Anticipating these dramatic cost impacts, a wave of projects is expected to break ground by the end of 2025 to lock in ITC eligibility before FEOC compliance takes effect— including the restart of projects paused in 2024 and 2025 due to tariff concerns. Many developers will begin balance-of-system work while delaying battery procurement, leveraging the flexibility to install within four years. Many will target a compressed timeline with peak construction activity in 2026–2027. Others may wait until 2028 for more tariff certainty or reduction before developing further projects. Developers will need to prioritize fully traceable, FEOC-compliant supply chains, with concomitant operational and legal challenges. Contract terms will likely evolve to include contingency clauses for ITC compliance (e.g., 48E) and FEOC-related risk sharing as a more standard practice.

From 2027 onward, most BESS projects with the current supply mix (with Chinese cells and enclosures) will no longer qualify for ITC. However, those sourcing from limited U.S.-based, other non-FEOC Asian capacities, or high-cost European supplies would be eligible for the credits. The impact on prices and demand, as well as the implications of these factors on the development of non-FEOC supply and BESS costs, is highly uncertain. Prices may fall mid-term as developers seek liquidity after a period of low prices and low sales. On the other hand, depending on how power prices and market designs evolve, developers could increase their fees to compensate for reduced revenue from project sales and avoid potential cash shortfalls.

Will the bill stimulate onshore battery production? In the short term, domestic capacity will remain far short of projected BESS demand and suffer from the near-total absence of local upstream infrastructure, especially in cathode and precursor materials. Recent exits or delays of domestic production capacity (e.g., KORE, iM3NY) exacerbate this gap. In the longer term, the prospect of a competitive domestic BESS manufacturing sector hinges on multiple, highly uncertain factors, including:

- The perceived durability of current tariffs and incentives (especially 45X)
- Investor confidence in long-term market signals beyond 2029
- The ability to develop non-FEOC supply chains for critical materials
- The impact of likely higher BESS costs—as well as OB3 impacts on intermittent generation capacity additions—on the growth of the U.S. BESS market
- The development of commercially attractive alternative storage technologies, independent of FEOC inputs
- The pace of U.S. EV demand growth and the consequent expansion of broader demand for domestic battery production

Based on what we can see today, and setting aside surprising technological or policy developments, it appears likely that domestic supply will lag demand for the foreseeable future. Despite the financial incentives provided by tariffs combined with domestic production credits, high U.S. manufacturing costs remain a structural challenge. Even with 45X credits, cost parity is unlikely without further innovation and/or cost compression. Moreover, most inputs, such as CAM and anode active material (AAM), remain tightly linked to Chinese entities, complicating compliance. In the medium term, the most realistic path to a viable domestic sector is through joint ventures with Korean and Japanese players willing to localize manufacturing and invest in upstream reshoring. However, until raw material processing and component manufacturing (e.g., CAM, AAM) are developed at scale in the U.S. or FTA-aligned countries, true independence from FEOC-linked supply remains challenging.

Winners and losers

So how big of a deal is this for the U.S. BESS industry? It depends on one's position in the market. As the policy landscape reshapes the economics of energy storage, not all market participants will be equally equipped to adapt. Competitive advantage will increasingly depend on timing, traceability and tactical alignment with the new regulatory contours. Perhaps most importantly, the advantages of scale will become more pronounced. Below, we have outlined our rough tally of how different players may fare.

Market participants that are likely to benefit:

- **U.S.-based manufacturers with traceable supply chains:** As the only FEOC-compliant suppliers, they gain pricing power in exchange for certification. This includes the sole U.S. LFP cell producer with no FEOC ties, positioned to secure offtake agreements through the final years of the ITC window, as well as manufacturers of other qualified "manufactured products" (e.g., power electronics) and vertically integrated players assembling full systems domestically.
- **Large IPPs and developers:** Those able to leverage deep balance sheets and initiate construction before year-end 2026 and absorb early-stage costs will benefit from grandfathered eligibility. Developers with a substantial share of projects already under construction or procurement will be especially advantaged, having flexibility to finish their projects by 2030.
- **Buyers of distressed or discounted projects post-2026:** IPPs acquiring projects from smaller or overextended developers following the buildout surge may gain access to partially completed assets at lower capital cost.
- **Tax credit market participants (in the near term):** In the near term, intermediaries and financial entities facilitating the trade or monetization of ITC and 45X credits will benefit from elevated demand for compliance solutions and structuring support. Longer term, as the role of tax-based financing declines, business models that rely on alternative sources of lower-cost capital will become increasingly competitive.

Market participants that are likely to face headwinds:

- **Developers initiating projects post-2027 without secured supply:** Most LFP cells will be ITC-ineligible under FEOC thresholds, leading to cost increases of >30% (depending on applicable tariffs at that time). Late entrants who have not already secured supply will face financing, procurement and timeline challenges.
- **Small and mid-sized developers:** Inability to procure at scale ahead of 2026 or to contract FEOC-compliant supply afterward will lead to project delays, renegotiated contracts and potential liquidity shortfalls. Many may be unable to meet delivery timelines or secure long-term Power Purchase Agreements (PPAs), resulting in market exits or distressed asset sales.
- **U.S. utilities relying on legacy assumptions:** Rising battery capex will likely drive PPA prices upward, challenging affordability, jeopardizing storage procurement targets and possibly facing prudence challenges in future rate cases.
- **C&I customers expecting rapid ROI under outdated assumptions:** Projects modeled on accelerated 5-year ITC amortization will be challenged by the shift to 12-year linear depreciation, extending payback timelines under new OB3 rules

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