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SPECIAL REPORT

The One Big Beautiful Bill (OBBB): Energy and Climate Change Implications



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The One Big Beautiful Bill (OB BB) represents a significant reorientation of United States energy and climate policy, shifting federal priorities away from the renewable and electrification-focused framework established under the Inflation Reduction Act (IRA) and toward hydrocarbons, natural gas, and carbon management technologies. Emerging at a time of heightened concern over energy security, industrial competitiveness, critical mineral supply chains, and geopolitical rivalry, the legislation reflects a broader policy trend in which economic resilience and strategic autonomy are increasingly prioritised. While supporters view OB BB as a pragmatic response to energy market realities, critics argue that it risks slowing progress toward decarbonisation. How does OB BB change U.S. energy policy? How does OB BB compare with the IRA? What are the global implications of the bill?

SPECIAL REPORT

This research paper is a Special Report published by the Al-Attiah Foundation. Each Special Report focuses on a prevalent current affairs topic that has ramifications for the energy industry and wider community. The papers are distributed in hard copy to members, partners, and universities, as well as made available online to all Foundation members.





- OBBB represents a major shift in U.S. energy and climate policy, redirecting federal support away from the renewable-focused framework established under the IRA toward hydrocarbons, natural gas, and carbon capture, utilisation and storage (CCUS).
- The legislation expands federal oil and gas leasing opportunities, accelerates depreciation for fossil fuel infrastructure, and strengthens incentives for CCUS through enhanced Section 45Q tax credits and support for carbon transport and storage infrastructure.
- Renewable energy sectors face tighter eligibility requirements under revised domestic content and Foreign Entity of Concern (FEOC) rules, increasing costs and compliance burdens for solar, wind, battery storage, and electric vehicle (EV) projects.
- Compared with the IRA, OBBB sends a different investment signal by prioritising energy security, industrial competitiveness, and export capacity over rapid decarbonisation, although incentives for nuclear and geothermal energy are largely preserved.
- Internationally, the legislation is likely to reinforce the U.S. role as a leading exporter of oil and liquefied natural gas (LNG), with implications for global energy prices, trade flows, and geopolitical influence.
- Reduced momentum in U.S. renewable deployment may increase costs in global clean energy markets and slow progress toward climate targets, particularly in developing economies dependent on affordable renewable technologies.

- Expanded FEOC restrictions may deepen fragmentation in global clean energy supply chains, especially between the U.S. and China.
- While CCUS expansion may reduce emissions in hard-to-abate sectors, the technology remains expensive and uncertain at scale, making it unlikely to fully offset slower renewable deployment and electrification.
- Overall, OBBB strengthens short-term energy security and hydrocarbon competitiveness but introduces significant long-term risks for emissions reduction, clean technology leadership, and global climate cooperation.



Recent Global Trends in Energy Security and Climate Action

The passage of the OBBB marks a significant turning point in U.S. energy and climate policy. Since the adoption of the IRA in 2022, the U.S. has helped drive a surge in global clean energy investment, with spending on renewable power, grids, storage, and electric transport expected to reach about US\$2 trillion in 2024. Record additions of solar and wind capacity have made renewables the leading source of new power generation worldwide, reinforcing the growing economic and strategic importance of low-emissions technologies despite deployment remaining below the pace required to meet climate goals.

Against this backdrop, OBBB reorients federal energy priorities toward hydrocarbons, natural gas, and CCUS, while reducing support for several renewable energy and EV measures expanded under the IRA. This shift reflects broader efforts by governments to balance climate objectives with concerns about energy security, industrial competitiveness, and supply chain resilience. Consequently, the implications of OBBB extend beyond the U.S. and are likely to influence wider debates about the future of the energy transition.

International assessments show that energy security and climate ambition are increasingly intertwined. The International Energy Agency (IEA) argues that modern energy systems can enhance security while reducing emissions, rather than requiring a trade-off between the two. Renewable energy has also gained a strong economic advantage. In 2024, more than 90 percent of newly commissioned utility-scale renewable capacity generated electricity at a lower cost than the cheapest new fossil fuel alternative, avoiding an estimated US\$467



billion in fossil fuel costs. United Nations analysis similarly finds that renewables now account for most new global power capacity, although financing constraints continue to limit progress in many emerging markets.

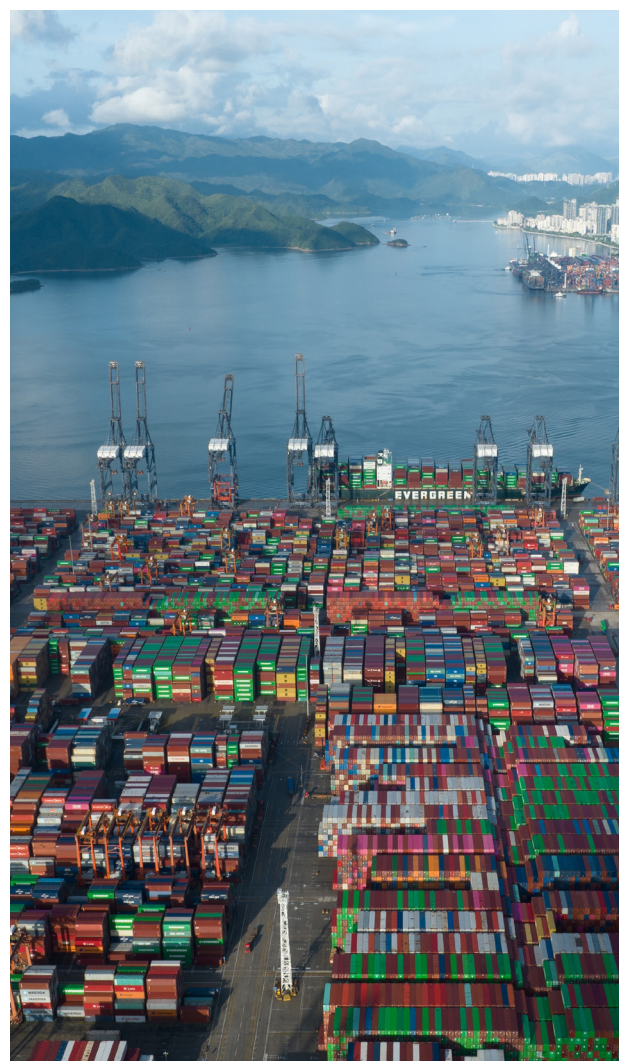
Despite this momentum, current trends remain insufficient to meet global climate objectives. The IEA projects that global renewable capacity could grow by around 2.7 times by 2030, exceeding many government targets but still falling short of the goal of tripling renewable capacity this decade. This shortfall helps to explain why many countries, including the U.S., continue to view natural gas, CCUS, and nuclear energy as important components of energy security and decarbonisation strategies.

Supply chains and critical minerals have also become central policy concerns. Research by the World Resources Institute (WRI) and others highlights the dependence of clean energy technologies on mineral processing concentrated in China. In response, governments have introduced new sourcing requirements, promoted domestic production, and strengthened partnerships with allied countries. OBBB reflects this trend through tighter FEOC provisions aimed at reducing strategic dependence on foreign suppliers, though such measures may also affect the pace and cost of clean energy deployment.

These developments provide the context for assessing OBBB. The legislation emerges amid rapid growth in renewable energy, expanding carbon capture projects, and continuing concerns about energy security and competitiveness. This paper examines its implications for hydrocarbons, natural gas, CCUS, wind, solar, nuclear, geothermal energy, and EVs, while also assessing stricter FEOC requirements for U.S.-China clean energy supply chains.

It argues that while OBBB may strengthen hydrocarbon competitiveness and expand LNG exports in the near-term, it could reduce the attractiveness of low-emissions technologies in the U.S. and complicate efforts to achieve the objectives of the Paris Agreement.

Overall, global energy markets continue to move toward cleaner and more diversified systems with significant economic and security benefits. Yet unresolved questions surrounding critical minerals, trade tensions, and the future role of gas and carbon capture mean that policies such as OBBB will remain highly influential in shaping both U.S. energy outcomes and the broader global transition.



07 KEY PROVISIONS OF OBBA RELATING TO ENERGY AND CLIMATE CHANGE



OBBA introduces a series of policy shifts that significantly reshape U.S. energy incentives and regulatory priorities.

Hydrocarbon Prioritisation

OBBA expands oil and gas exploration on both federal lands and offshore areas, while introducing accelerated depreciation schedules for fossil fuel infrastructure. These changes shorten capital recovery periods and are designed to stimulate additional hydrocarbon investment. The approach reflects earlier policy efforts such as the Energy Policy Act of 2005, which similarly sought to bolster fossil fuel development through fiscal incentives.

Natural Gas and CCUS

The bill places significant emphasis on CCUS, especially in connection with natural gas production and enhanced oil recovery (EOR). Section 204(b) expands the Section 45Q tax credit by increasing the value per ton of carbon dioxide permanently stored underground and adding a bonus tier for projects integrated with EOR.

It also extends project eligibility through 2035 and authorises the Department of Energy to create a CCUS Infrastructure Fund to support regional carbon dioxide transport networks. Together, these measures aim to maintain hydrocarbon competitiveness while relying on CCUS as a scalable emissions reduction solution.

Reduction of Renewable Incentives

OBBA introduces major revisions to renewable energy incentives originally enacted under the IRA. Section 302 modifies both the Production Tax Credit (45Y) and the Investment Tax Credit (48E), reducing credit values for solar and wind projects that do not meet strengthened domestic content and wage requirements. It also adds a sunset clause that phases out certain IRA era bonus credits for projects starting after 2030. While framed as a way to boost domestic manufacturing and labour standards, these changes raise near-term project costs and may slow renewable deployment.

EVs and Supply Chain Restrictions

Section 407 contains some of the bill's most debated measures, tightening FEOC restrictions under the Clean Vehicle Credit (30D). Beginning in 2026, automakers using critical minerals such as lithium, cobalt, and nickel from China, Russia, Iran, or North Korea become ineligible for tax credits. The bill also narrows eligibility for commercial EV leasing credits under Section 45W, affecting fleet electrification. Although intended to strengthen U.S. supply chain security, these provisions may increase consumer costs and slow the adoption of EVs.

Nuclear and Geothermal Preservation

Unlike its treatment of renewables and EVs, OBBB largely preserves existing incentives for nuclear and geothermal energy. Section 503 reaffirms the Clean Electricity Production Credit for advanced nuclear facilities (formerly 45U) and extends Department of Energy loan guarantees for small modular reactors (SMRs) through the Title XVII program. Geothermal projects continue to qualify for an extended Investment Tax Credit under Section 48E, though overall funding remains limited. While these measures support dispatchable low-carbon energy, long development timelines, often exceeding a decade, limit their ability to contribute significantly to near-term national decarbonisation goals.

Foreign Entity of Concern (FEOC) Provisions

Beyond the EV sector, OBBB broadens FEOC restrictions to include components used in solar panels, wind turbines, and energy storage systems. Section 601 redefines eligible energy property to exclude facilities that rely on materials sourced from FEOC designated entities.

Given China's dominant position in global clean energy supply chains, this provision could sharply limit access to U.S. tax credits for many developers. Supporters argue these restrictions will stimulate domestic production, while critics warn that higher costs and longer development timelines may slow the overall clean energy transition.



09 OBBS VS. IRA: COMPARATIVE ANALYSIS

The IRA of 2022 was widely regarded as a major milestone for clean energy, channelling nearly US\$370 billion into tax credits and subsidies for renewables, EVs, and low-carbon technologies. In contrast, OBBS represents a shift in priorities, placing greater emphasis on hydrocarbons while scaling back incentives for clean energy.

The contrast between the two frameworks illustrates a broader shift in federal priorities from accelerated decarbonisation toward energy security and hydrocarbon competitiveness.

Figure 1 – Comparative Policy Support: IRA vs OBBS

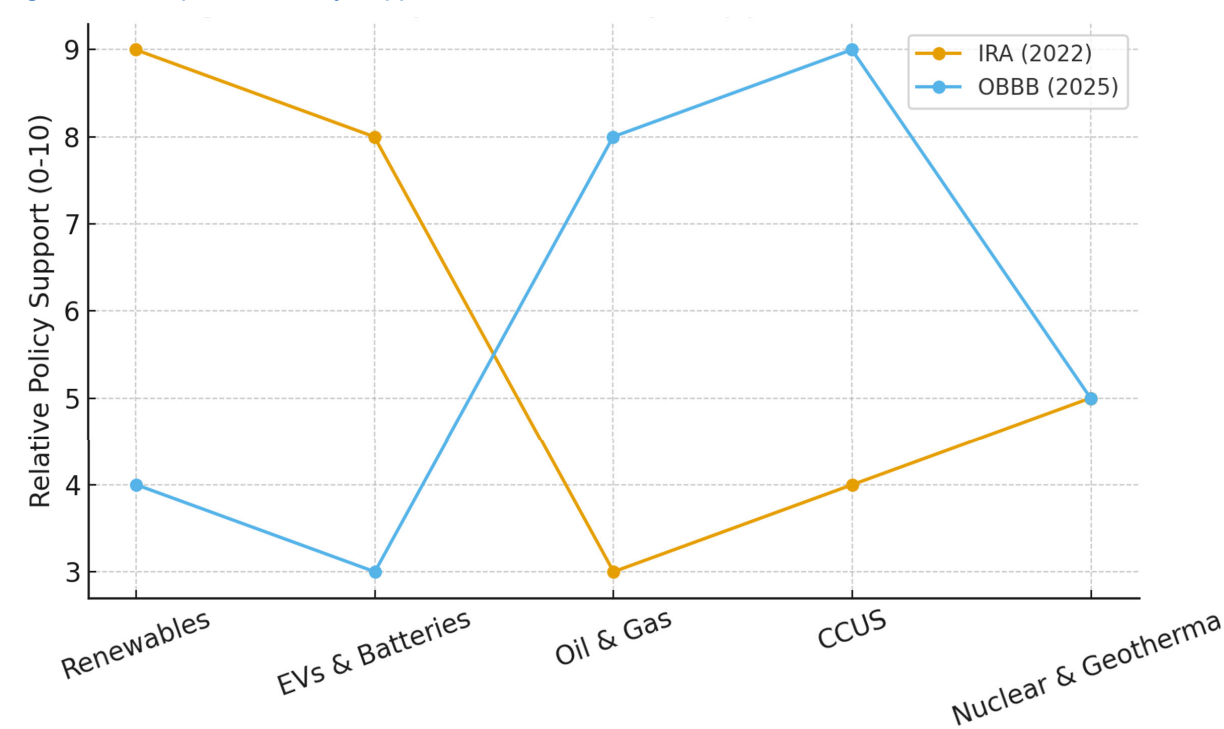


Table 1 – Energy Sector Implications of the IRA (2022) and OBBS (2025)

Area	IRA (2022)	OBBS (2025)	Implications
Renewables (wind, solar)	Robust tax credits with domestic content bonus	Credits restricted, stricter FEOC rules	Slower deployment, higher costs
EVs & Batteries	Strong incentives for U.S. manufacturing and deployment	FEOC restrictions limit credits	EV adoption slows
Hydrocarbons	No new major incentives	Expanded leasing, depreciation, subsidies	Boosts fossil fuel investment
Natural Gas & CCUS	Limited CCUS incentives	Strong credits for CCUS in EOR and gas	Enhances hydrocarbon competitiveness
Nuclear & Geothermal	Incentives for SMRs and pilot geothermal	Preserved incentives, unchanged	Marginal near-term impact



Strengthens Hydrocarbon Competitiveness

OBBB reinforces the U.S.'s status as a global energy powerhouse by expanding oil and gas leasing opportunities and extending tax advantages for hydrocarbon infrastructure. By providing fiscal and regulatory certainty, the legislation encourages new upstream investment and infrastructure development, particularly for LNG exports. This strengthens U.S. energy security and global market influence, ensuring that American producers remain cost-competitive even amid the global energy transition.

Provides Regulatory Clarity for CCUS Projects

One of the most significant advantages of OBBB is its explicit support for CCUS. The bill not only increases the value of tax credits for carbon capture but also extends project eligibility timelines and funding mechanisms for CO₂ transport and storage infrastructure. This regulatory clarity addresses a key barrier under previous frameworks, where uncertainty around

credit qualification and project timelines discouraged investment. By streamlining the path for CCUS deployment, OBBB may accelerate industrial decarbonisation and solidify the U.S. as a leader in carbon-management technologies.

Preserves Nuclear and Geothermal Pathways

Unlike the renewable and EV sectors, nuclear and geothermal energy retain the incentives originally established under the IRA. Although these technologies have long development timelines and currently play modest roles in the energy mix, their preservation under OBBB ensures that the U.S. keeps multiple low-carbon options open for the long-term. For policymakers, this offers a diversified energy portfolio, one that can balance baseload power needs with decarbonisation objectives once these technologies reach a greater commercial maturity.

Weakens Renewable Momentum

While the OBBB promotes hydrocarbons, it simultaneously undercuts the rapid renewable expansion catalysed by the IRA. By tightening domestic content rules and lowering credit rates for solar and wind projects, the bill introduces new financial and logistical hurdles. Developers face higher costs and longer project timelines, slowing capacity additions just as the U.S. was approaching record growth in clean power deployment. The policy shift risks reversing gains in renewable energy cost competitiveness and slowing progress toward emission-reduction targets.

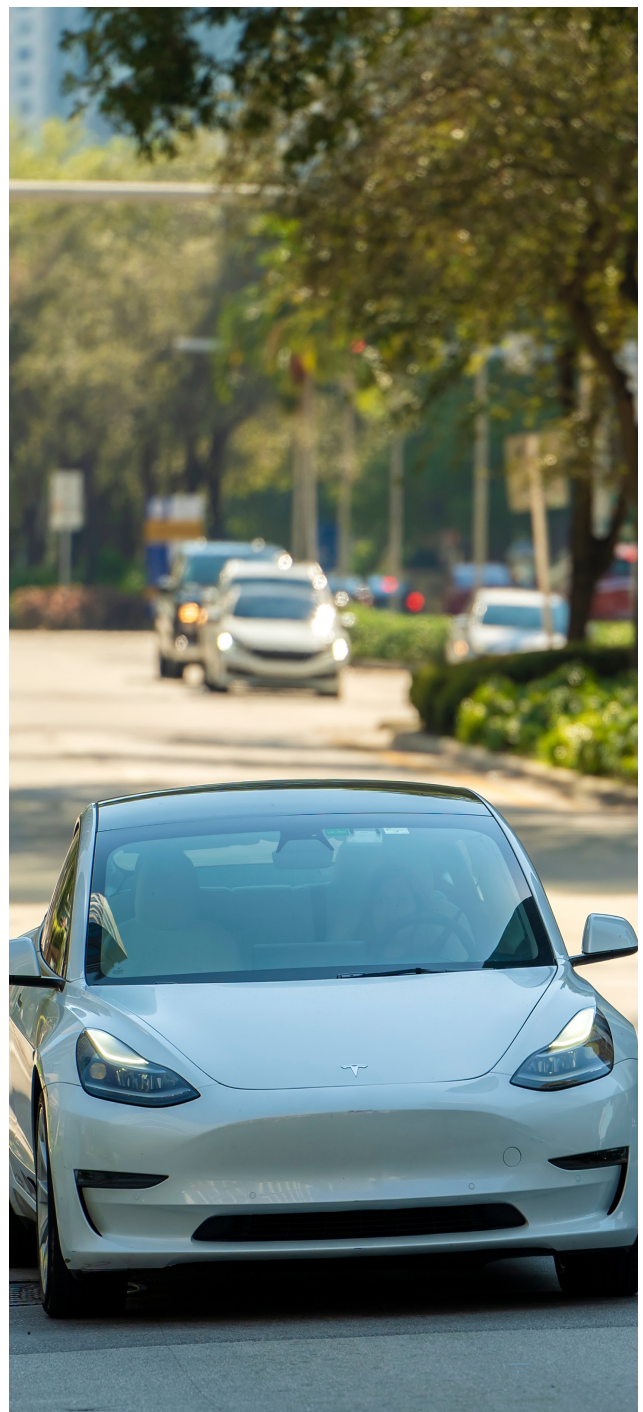
Complicates EV Adoption Through FEOC Rules

The OBBB's stringent FEOC provisions, which disqualify EVs and batteries containing materials from China and certain other countries from receiving tax credits, create a complex compliance environment. Although designed to strengthen U.S. supply chain independence, the rules expose automakers to immediate bottlenecks in critical mineral supply. This is likely to increase vehicle prices and reduce consumer incentives, slowing the adoption of electric mobility. In the long run, the policy may drive investment into domestic battery manufacturing, but the short-term effect could be a temporary plateau in EV market growth.

Risks Long-Term Carbon Lock-In

By focusing heavily on hydrocarbons and CCUS rather than accelerating renewables, OBBB risks embedding fossil fuels deeper into the national energy system. While CCUS can offset some emissions, it does not eliminate them entirely, and large-scale deployment remains costly and unproven at the scale required.

The bill's emphasis on extending the life of existing fossil assets could hinder the structural energy transition needed to align with Paris Agreement targets. In essence, OBBB prioritises energy security and industrial competitiveness at the potential expense of long-term climate ambition.





OBBB's global impact can be summarised in three dimensions:

Hydrocarbon Supply Expansion

The OBBB is poised to reinforce the U.S.'s dominance in global hydrocarbon markets, particularly through increased natural gas production and exports. The U.S. became the world's largest exporter of LNG in 2023, overtaking Qatar and Australia, with total exports surpassing 86 million metric tons (Mt), according to the IEA. Under OBBB, expanded federal leasing and extended depreciation schedules for fossil infrastructure are expected to raise production capacity further, potentially pushing annual U.S. LNG exports above 100 Mt by 2027.

This expansion strengthens U.S. energy security and geopolitical influence, allowing it to serve as a key supplier to Europe and Asia amid continuing volatility in global gas markets.

However, it also increases competition for established LNG exporters such as Qatar, which aims to expand its North Field capacity to 142 Mt per year by 2030, and Australia, whose exports currently hover around 80 Mt per year. The resulting increase in global supply could reshape LNG pricing dynamics, keeping spot prices within a lower band, possibly US\$9 to US\$12 per million British thermal units (MMBtu), compared with the record highs seen during the 2022 energy crisis.

While this may stabilise energy costs for importing nations, it could also entrench global reliance on gas, delaying broader shifts toward renewable-based power systems. OBBB's emphasis on natural gas and carbon capture may therefore help U.S. producers consolidate global market share but risks locking in fossil infrastructure for decades, complicating the achievement of global net-zero targets.



Delayed Global Renewable Momentum

The weakening of renewable incentives under OBBB could have ripple effects across international clean energy markets. The U.S. currently accounts for roughly 15–18 percent of global solar demand and 20 percent of global wind turbine installations. The IRA had catalysed unprecedented investment, with over US\$270 billion in new clean energy manufacturing commitments announced between 2022 and 2024. OBBB's tightening of tax credit eligibility and domestic content rules could slow this growth, particularly as developers face higher costs for U.S.-sourced components.

Reduced U.S. demand for solar panels and wind turbines would directly impact global supply chains dominated by Asian manufacturers. According to BloombergNEF, China accounts for more than 80 percent of global solar module production and 70 percent of wind turbine components. If OBBB's domestic content

thresholds and FEOC restrictions limit U.S. imports, economies of scale may weaken, raising global average equipment costs by 5–10 percent over the next five years.

For developing nations dependent on affordable renewables, this slowdown could delay their energy transitions. The International Renewable Energy Agency (IRENA) estimates that achieving the 1.5-degree Celsius pathway requires annual global renewable capacity additions of 1,000 gigawatts (GW), yet in 2024 only 560 GW were added. Any decline in U.S. renewable growth could therefore jeopardise this trajectory, undermining global progress toward net-zero goals.

Strained U.S.–China Energy Relations

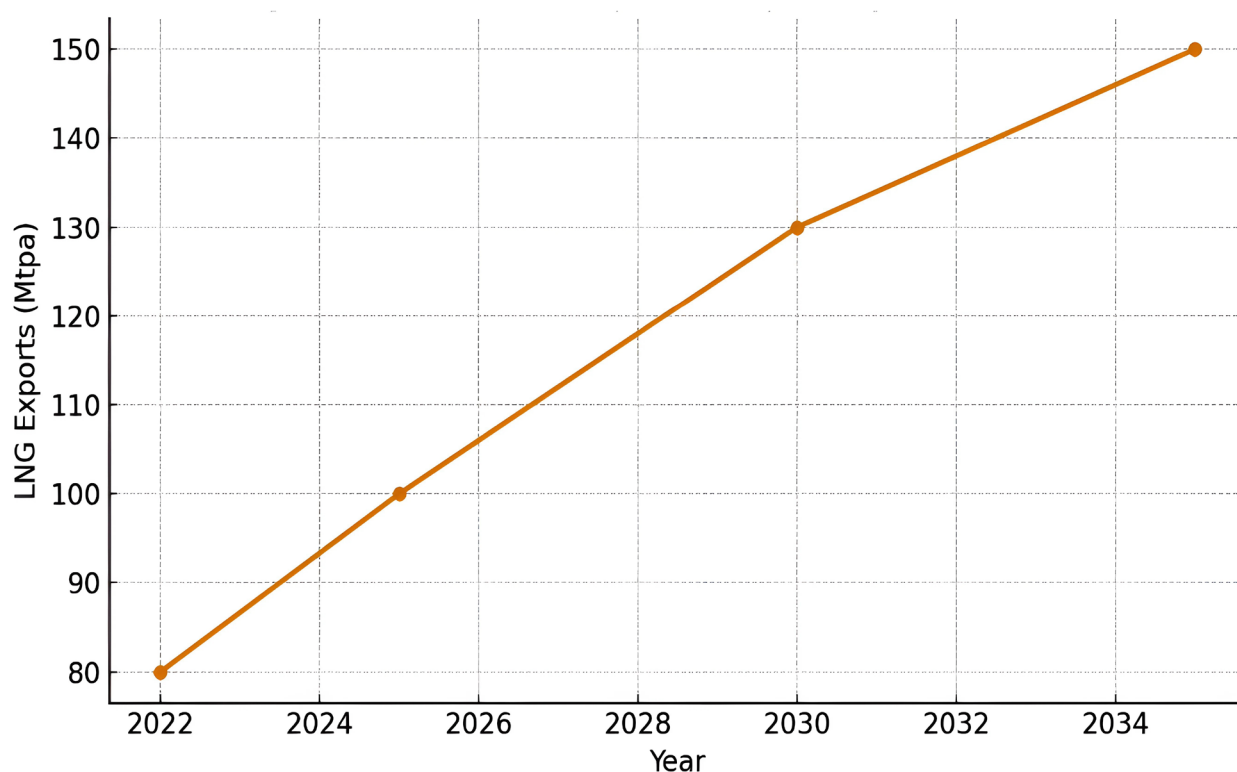
The tightened FEOC provisions in OBBB directly target China's dominance in clean energy supply chains, where it controls over 70 percent of global lithium-ion battery production, 60

percent of wind turbine manufacturing, and more than 80 percent of solar photovoltaic (PV) module output. These measures aim to reduce U.S. dependence on Chinese imports by disqualifying projects using Chinese-sourced materials from receiving federal tax credits.

In the short-term, this policy shift could produce a rush of imports as developers seek to secure equipment before the new restrictions fully take effect in 2026. U.S. customs data from 2024 already indicated a 30 percent increase in imported solar modules from Southeast Asia, suggesting developers are stockpiling before the new compliance deadlines. In the longer term, however, these measures risk fracturing global clean energy markets into competing blocs, one centred on the U.S. and its allies and the other anchored by China's Belt and Road Initiative and manufacturing dominance.

This fragmentation could slow innovation and increase costs. The World Bank warns that trade fragmentation in clean energy could raise global transition costs by up to US\$1.6 trillion by 2040. Moreover, restricted access to affordable Chinese-made components may delay U.S. deployment timelines, particularly for EV batteries and solar installations. While OBBB's FEOC rules may stimulate domestic manufacturing in the long run, the near-term effect is likely to be slower project execution and increased capital costs, adding friction to the global clean energy transition.

Figure 2. U.S. LNG Exports Trajectory under OBBB





WINNERS:

Hydrocarbon Producers

Major oil and gas firms such as ExxonMobil, Chevron, and ConocoPhillips stand to gain significantly from OBBB's expanded leasing programs and favorable tax treatment of hydrocarbon infrastructure. The bill's extended depreciation schedules and relaxed permitting conditions reduce capital costs for upstream and midstream projects, improving returns on investment. This regulatory certainty will likely stimulate new exploration in both the Gulf of Mexico and U.S. shale basins, reinforcing the latter's position as the world's top producer of oil and natural gas. The IEA projects that U.S. oil production could remain above 13 million barrels per day through the late 2020s, and natural gas output could rise to nearly 110 billion cubic feet per day, levels sustained by the kind of policy support embedded in OBBB.

For investors, this creates a clear signal that fossil fuels will remain a core component of its energy portfolio for the foreseeable future.

CCUS Developers

Companies specialising in carbon capture, such as Occidental Petroleum and ExxonMobil's Low Carbon Solutions division, emerge as another set of major beneficiaries. The bill's expansion of the Section 45Q tax credit - raising the value per ton of captured carbon dioxide and extending eligibility through 2035 - creates a strong incentive for industrial emitters to adopt CCUS technology. Enhanced credits for projects tied to EOR further align environmental and commercial objectives by monetising captured carbon. OBBB's provisions are likely to spur the development of regional carbon transport and storage hubs, especially along the Gulf Coast and in the Permian Basin. Analysts at Rystad Energy estimate that U.S. CCUS capacity could grow from about 25

million tons of CO₂ captured annually in 2024 to more than 250 million tons by 2035 if the new credits are fully utilised.

Select Nuclear/Geothermal Investors

While not the main focus of OBBB, the continued support for nuclear and geothermal technologies provides a quiet advantage to investors in these sectors. Developers of SMRs such as NuScale Power and TerraPower benefit from extended federal loan guarantees and production credits. The long development timelines of SMRs, typically 10 to 15 years, limit immediate returns but create a pathway for stable, low-carbon baseload generation in the 2030s and beyond. Geothermal developers also stand to gain from the preservation of investment tax credits and from Department of Energy programs that fund exploratory drilling. Although their role in the national energy mix remains small—less than 0.5 percent of total generation—the policy continuity signals that these sources will remain part of a diversified low-carbon portfolio.

LOSERS:

Renewable Developers

Wind and solar developers, including major players such as NextEra Energy, Invenergy, and Ørsted, face immediate headwinds under OBBB. The tightening of domestic content requirements and the reduction of production and investment tax credits raise project costs and reduce margins. Many developers rely on global supply chains to source solar modules, inverters, and turbine components; by limiting imports, OBBB increases capital expenditures and lengthens project timelines. BloombergNEF projects that average solar utility-scale project costs in the U.S. could rise by 8–12

percent in the next two years as a result of these policy changes. In addition, uncertainty over qualification for tax credits may deter investors, slowing what had been one of the fastest-growing segments of the U.S.'s energy infrastructure.

EV Manufacturers

Automakers such as Tesla, General Motors, and Ford face significant challenges under the new FEOC provisions. These rules disqualify vehicles containing Chinese-sourced materials, particularly lithium, cobalt, and nickel, from receiving consumer tax credits starting in 2026. As China controls roughly 70 percent of global battery cell production and dominates refining for most critical minerals, compliance will be difficult in the near-term.



Manufacturers will need to restructure supply chains and establish new domestic partnerships, which could take several years and increase vehicle prices. The short-term effect will likely be a plateau in EV adoption, with some analysts projecting that U.S. EV sales growth could slow from 50 percent in 2023 to below 20 percent by 2026.

Battery Supply Chains

The FEOC rules also disrupt the broader battery manufacturing ecosystem. Companies reliant on Chinese suppliers for cathode and anode materials, such as Panasonic, LG Energy Solution, and CATL's U.S. partners, may struggle to qualify for tax incentives. Domestic battery production capacity, which stood at about 130 gigawatt-hours (GWh) in 2024, would need to expand to more than 500 GWh by 2030 to meet projected EV and storage demand under the new sourcing restrictions. Although OBBB's long-term goal is to stimulate this local capacity, in the short run, bottlenecks in mineral refining and component manufacturing are likely to raise costs across the

EV and grid storage sectors. This could slow progress toward national electrification goals and delay large-scale renewable integration that depends on affordable storage.

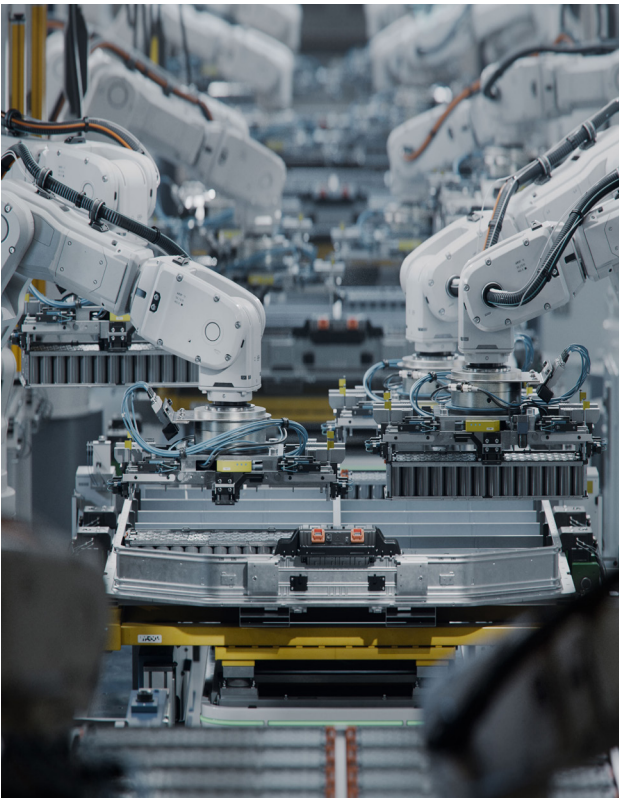


Table 2. Quantitative Sectoral Effects of OBBB

Sector	Indicator	Estimated Impact Under OBBB
LNG / Natural Gas	U.S. LNG exports	Increase from 86 Mt in 2023 to more than 100 Mt by 2027
Oil & Gas	U.S. crude oil production	Expected to remain above 13 million barrels per day
Natural Gas	U.S. gas production	Projected to reach 110 billion cubic feet per day
CCUS	Carbon capture capacity	Increase from approximately 25 MtCO ₂ /year to more than 250 MtCO ₂ /year by 2035
Renewables	Wind and solar project costs	Increase of 5–10% over the next five years
Utility Scale Solar	Project costs	Increase of 8–12% due to sourcing restrictions and compliance requirements
Electric Vehicles	Annual EV sales growth	Slow from approximately 50% in 2023 to below 20% by 2026
Battery Manufacturing	Domestic battery production capacity requirement	Increase from 130 GWh to more than 500 GWh by 2030



The OBBS reshapes the U.S. energy transition around hydrocarbons and carbon management rather than rapid renewable deployment. It signals a strategic shift toward treating CCUS as the main emissions mitigation tool, reinforcing the central role of natural gas and oil in the national energy mix. This direction reflects broader geopolitical and industrial priorities: ensuring energy affordability, protecting export competitiveness, and strengthening domestic production capacity. Yet the effects of this realignment will differ across time horizons.

Near-Term

In the near-term (2025–2030), OBBS is expected to drive higher levels of hydrocarbon production and an acceleration of CCUS projects, while slowing progress in renewable energy and EV adoption. The Energy Information Administration (EIA) projects that U.S. crude oil production will remain close to record levels of 13.5 million barrels per day through 2030, supported by new

federal leasing opportunities and favorable depreciation rules. Natural gas production is also set to increase, with LNG exports potentially surpassing 100 Mt annually by 2027.

OBBS's expanded CCUS incentives may spur rapid growth in capture and storage projects, with the Department of Energy estimating more than 200 new facilities under development by decade's end. These projects could help reduce emissions in hard-to-abate sectors such as cement, steel, and refining, though the overall scale of mitigation remains uncertain.

Meanwhile, renewable energy deployment is likely to lose momentum. Reduced tax credits combined with stricter domestic sourcing rules are projected by BloombergNEF to raise the cost of solar and wind installations by 8–10 percent. EV adoption, which grew by 47 percent in 2023, may flatten as automakers struggle to comply with FEOM restrictions

on battery components. The short-term result is an energy system that remains secure and profitable but decarbonises more slowly.

Medium-Term

By the 2030s (2030–2040), the structural consequences of OBBB become more pronounced. Continued reliance on hydrocarbons risks embedding significant carbon emissions into the U.S. economy for decades. Even with broad CCUS deployment, the scale required for meaningful decarbonisation is immense. To remain consistent with net zero goals, the IEA estimates that the U.S. would need to capture and store more than 800 million tons of carbon dioxide annually by 2040, more than four times current projections for installed capacity.

Achieving this scale will be difficult unless CCUS costs fall sharply from current averages of US\$60 to US\$120 per ton to below US\$30 dollars. While nuclear and geothermal energy maintain policy support, their overall contribution remains limited. By 2040, SMRs may provide only 5–7 percent of national electricity generation, and geothermal output may rise only slightly above 1 percent.

This decade may also bring growing policy divergence as several states and private sector actors push for faster renewable adoption to meet regional climate goals. States such as California and New York, which have committed to 100 percent clean power by 2045, could increasingly diverge from the federal pathway set by OBBB, producing a more fragmented national energy landscape.

Long-Term

Beyond 2040, the long-term legacy of OBBB will depend on whether its hydrocarbon-centred model evolves into a lower carbon system or locks the U.S. into extended fossil fuel dependence. If CCUS and low-carbon hydrogen technologies advance rapidly, the country could maintain energy dominance while preserving climate credibility, positioning itself as a global leader in carbon management. If technological or economic barriers persist, however, the U.S. may fall behind in the global clean energy race.

The EU and major Asian economies, including Japan, South Korea, and China, are expected to continue accelerating renewable energy growth. By 2040, the EU may obtain more than 85 percent of its electricity from renewables, compared with an estimated 55–60 percent in the U.S. under OBBB-aligned trajectories. This divergence could shift innovation, investment, and manufacturing leadership toward Europe and Asia, eroding the U.S. competitive position in clean technologies.

In global perspective, OBBB's lasting impact will hinge on how adaptable U.S. policy proves to be. A balanced transition will require combining OBBB's short-term economic stability with renewed investment in renewables to remain aligned with international climate objectives. Without such adjustments, the bill may ultimately be seen as a policy that prioritised immediate energy security at the expense of long-term sustainability.



The OBBB marks a significant shift in U.S. climate policy. By prioritising hydrocarbons and CCUS over renewables and electrification, the legislation makes it harder for the country to meet its Paris Agreement commitments. The national goal of reducing greenhouse gas emissions by 50–52 percent below 2005 levels by 2030 is now even more difficult to achieve. Expanded oil and gas leasing, slower renewable deployment, and tightened FEOC restrictions all work against the rapid decarbonisation expected under the IRA.

Although OBBB strengthens CCUS incentives by increasing tax credit values and extending eligibility through 2035, the technology remains expensive and unproven at the scale required. Current global CCUS capacity is approximately 50 million tons of carbon dioxide captured per year.

By contrast, the IEA estimates that more than 1.2 billion tons must be captured annually by 2030 to stay on track for the 1.5-degree Celsius goal. Even under favorable conditions, the U.S. is unlikely to reach this scale, as most commercial CCUS facilities capture only 1 to 2 million tons per year. Costs also remain high, averaging 60 to 120 U.S. dollars per ton, compared with less than 40 dollars for equivalent emissions reductions achieved through renewable energy deployment.

Internationally, OBBB's emphasis on hydrocarbons and CCUS may influence other major energy exporters, including Saudi Arabia, the United Arab Emirates, and Russia, to follow similar strategies. Such a shift risks slowing the global movement toward renewables and electrification, undermining the momentum needed to meet global climate goals.

The Intergovernmental Panel on Climate Change (IPCC) warns that worldwide emissions must fall by 43 percent by 2030 compared with 2019 levels to maintain a path consistent with 1.5 degrees Celsius, a target that becomes increasingly unattainable if major economies double down on fossil fuel expansion.

Ultimately, OBBB bolsters short term energy security and industrial competitiveness but undermines long term climate credibility. Unless CCUS deployment accelerates dramatically and renewable investment recovers, the legislation may secure U.S. hydrocarbon dominance while weakening its role in the global effort to limit warming to safer levels.





Although OBBB has only recently entered into force, several developments since the bill's introduction provide preliminary indications of its impact on the energy sector. In carbon management, interest in CCUS projects has continued to expand, supported by enhanced policy incentives and growing private sector participation. According to IEA and industry tracking, the U.S. continues to account for the largest global pipeline of announced carbon capture and storage projects, with activity concentrated along the Gulf Coast and in major industrial hubs. This suggests that the bill's strengthened support for carbon management technologies is broadly aligned with existing investment trends.

In the hydrocarbon sector, continued growth in U.S. oil and LNG production has reinforced the country's position as the world's leading producer of oil and natural gas. Industry stakeholders have generally welcomed the bill's provisions relating to leasing, permitting, and

infrastructure development, arguing that they provide greater regulatory certainty for long-term investment decisions.

By contrast, renewable energy developers and EV manufacturers have expressed concerns regarding tighter domestic content requirements and FEOC restrictions. Several firms have highlighted potential challenges associated with restructuring supply chains away from Chinese-sourced materials, particularly for batteries and critical minerals. While many projects continue to proceed under previously approved investment frameworks, industry groups have warned that increased compliance costs and supply chain constraints could slow future deployment rates. At present, however, insufficient time has elapsed since implementation to draw definitive conclusions regarding the full impact of OBBB on renewable energy deployment, EV adoption, or clean energy investment.

The OBBB marks a significant shift in U.S. energy and climate strategy. Its direction is unmistakable: hydrocarbons and CCUS are positioned as the central pillars of national energy security for the coming decades. Nuclear and geothermal incentives remain in place, but these sectors stay secondary due to their limited scale and long development timelines. At the same time, tightened FEOC rules complicate access to clean global energy supply chains, adding new risks and uncertainties for developers.

For policymakers, industry leaders, and international institutions, the stakes are considerable. In the near term, OBBB may provide stability for hydrocarbon markets and help preserve U.S. competitiveness in natural gas exports. However, this stability comes with trade-offs. Progress on renewables, EVs, and broader clean technology deployment is likely to slow. Without corrective action or complementary policies that reinvigorate low-carbon energy growth, long term climate objectives will become increasingly difficult to meet.

OBBB therefore puts forward a strategic question: can the U.S. maintain fossil fuel competitiveness while upholding the commitments it has made under the Paris Agreement and to its allies on climate action? The answer hinges on whether CCUS and other carbon management technologies can scale rapidly and cost-effectively, or whether the country becomes locked into an extended period of hydrocarbon dependence.

Ultimately, OBBB highlights the enduring tension between energy security and climate ambition. It offers a sense of stability for hydrocarbon producers and heavy industry, yet risks slowing U.S. leadership in renewable

and clean technology innovation relative to Europe and Asia. For international partners and observers, the bill serves as both an opportunity and a warning: U.S. energy policy will influence not only domestic markets but also the global transition. Whether OBBB becomes a bridge to a balanced energy future or a detour that delays climate progress will depend on how quickly policymakers and industry adapt to the new landscape it creates.



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- Renewable Energy Capacity Statistics 2024
- Global Status Report | Global CCS Institute
- The Green Deal Industrial Plan - European Commission
- Executive Summary – World Energy Outlook 2024 – Analysis - IEA
- Renewable Power Generation Costs in 2024
- Executive summary – Renewables 2024 – Analysis - IEA
- Securing Critical Minerals Supply Is Key to US Climate Action | World Resources Institute

25 PAST ISSUES

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September – 2029

Global Natural Gas Demand: When Will Global Natural Gas Demand Peak?

Natural gas, long heralded as the "bridge fuel" of the energy transition, finds itself at a pivotal juncture in global energy policy and market dynamics. Once primarily discussed in the context of supply scarcity, today's discourse on "peak gas" has shifted decisively toward demand.



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April – 2025

EU Regulation 2024/1787 on the Reduction of Methane Emissions and Its Impact on LNG Imports

On 27 May 2024, the member states of the European Union (EU) approved a law to impose methane emissions limits on oil and gas production and imports into Europe, set to take effect in 2030. This measure aims to increase pressure on both EU producers and international suppliers to curb methane leaks.



(QRCO.DE)



March – 2025

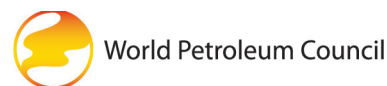
Competition on Emissions: Coal Vs LNG

In January 2024, U.S. President Joe Biden issued a moratorium on the expansion of liquefied natural gas (LNG) exports, citing the need for a comprehensive assessment of the environmental, economic, and geopolitical impacts.



(QRCO.DE)

Our partners collaborate with The Al-Attiyah Foundation on various projects and research within the themes of energy and sustainable development.





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