

INVESTOR UPDATE

April 2025

Foss & Company Confidential

Dear Investors,

I recently returned from Infocast's 2025 Solar + Wind Finance & Investment Summit (March 16–19), where I was honored to speak on the opening panel, *The Effects of the Election on Renewable Finance & Development*. This letter recaps my main takeaways from the panel, and it also provides deeper insights on my outlook for the industry, tailored to our investor clients. Over the past eight weeks, President Trump's return to office has spurred executive orders aimed at reversing many recent climate initiatives. However, the core framework established by the Inflation Reduction Act (IRA) remains resilient and continues to anchor the renewables market—tax credits created by statute cannot simply be canceled by executive order. Moreover, recent reporting suggests that even among Republicans there's [a growing consensus](#) for a more measured, “thoughtful” phaseout of green credits rather than an outright repeal, as lawmakers find less fiscal leeway for cuts than initially expected.

In terms of long-term market outlook, I see substantial room for renewables to continue thriving. First, massive electricity demand—[driven by data centers, AI workloads](#), and other power-hungry applications—has accelerated project pipelines for solar, wind, and battery storage. Second, [Republican support for preserving clean energy incentives is growing](#), suggesting that key IRA provisions will largely survive. Finally, [supply-chain constraints for natural gas turbines](#) are creating further openings for renewables to fill the generation gap. Below, I outline key developments, analyze their impact on our core sectors, and explain what they mean for our strategy going forward.

IN SUMMARY

IN CASE YOU DON'T HAVE TIME TO READ THE FULL LETTER:

- **STRONG BACKBONE:** DESPITE RECENT EXECUTIVE ORDERS, THE INFLATION REDUCTION ACT REMAINS THE BACKBONE FOR RENEWABLES, AND WE EXPECT KEY TAX CREDITS TO REMAIN INTACT.
- **BUDGET & RECONCILIATION:** CONGRESS IS NEGOTIATING TO EXTEND THE TAX CUTS AND JOBS ACT VIA RECONCILIATION—WITH DEBATES OVER CREDIT TRANSFERABILITY, DOMESTIC CONTENT RULES, AND OTHER IRA PROVISIONS—BUT PROTECTIVE GRANDFATHERING MEASURES ARE EXPECTED FOR CURRENT DEAL PIPELINE.
- **SECTOR GROWTH:** STRONG DEMAND FROM DATA CENTERS AND AI IS DRIVING ROBUST GROWTH IN SOLAR, WIND, AND NUCLEAR; WHILE NATURAL GAS TURBINE SHORTAGES OPEN ADDITIONAL OPPORTUNITIES FOR RENEWABLES IN THE NEAR TERM.
- **MARKET DYNAMICS:** TECH-NEUTRAL TAX CREDITS (48E/45Y), ALONGSIDE EXPANDING DOMESTIC MANUFACTURING (SECTION 45X), ARE RESHAPING INVESTMENT IN CLEAN ENERGY, WHILE CCUS AND CLEAN HYDROGEN SHOW PROMISE FOR INDUSTRIAL DECARBONIZATION.
- **FOSS STRATEGY:** [REDACTED]
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I. POLICY LANDSCAPE AND LEGISLATIVE OUTLOOK

The Strength of the Inflation Reduction Act

Recent executive actions—including the Unleashing American Energy order—direct federal agencies to pause disbursements under both the IRA and the bipartisan infrastructure law. Critically, tax credits themselves are created by statute and cannot be canceled by executive order. Analysts from [Reuters](#) and the [Financial Times](#) confirm that while some funding is paused, the underlying tax credits remain secure. In addition, lobbying by more than [1,800 companies](#) has underscored the vital role these incentives play in creating jobs and attracting investment. Importantly, while earlier calls from some Republicans favored a full repeal of clean energy credits, recent remarks by House Budget Chair Jodey Arrington indicate a shift toward a “thoughtful” phaseout. Arrington has suggested that rather than eliminating every provision, a gradual transition might mitigate more severe economic consequences—especially since available climate funding to cut appears lower than initially projected. Given the broad bipartisan support for the IRA, any major changes will likely require congressional action, meaning that a complete dismantling of the framework is increasingly unlikely.

Reconciliation Process

Now that a [continuing resolution \(CR\) funding the government through September 30, 2025](#), has been passed, Congress can fully pivot to the reconciliation process. The reason Republicans are pushing a new budget is largely to extend the Tax Cuts and Jobs Act (TCJA), which is set to expire at the end of this year. Reconciliation offers a path to pass major agenda items, such as an extension of the 2017 tax cuts, with only a simple majority vote in the Senate—bypassing the usual 60-vote filibuster threshold. Budget resolutions enabling the reconciliation process have been passed in the House and the Senate:

- **Senate Two-Bill Strategy:** On February 21, the Senate adopted a [fiscal year \(FY\) 2025 resolution](#) that addresses defense, immigration, and energy in what would be the first of two reconciliation bills. The second bill is designed to extend the 2017 tax cuts and includes other tax priorities.
- **House One-Bill Strategy:** The House narrowly [approved its own budget resolution](#) on February 25, adopting a single-bill approach that includes \$1.5 trillion in spending cuts, a \$4 trillion debt-limit increase, and up to \$4.5 trillion in tax cuts—contingent on identifying an additional \$500 billion in spending reductions.

This week, lawmakers returned from recess to iron out differences between the House and Senate budget resolutions. Drafting discussions are now taking place within the House Ways and Means Committee, and potential cuts or changes to clean energy tax credits have been a topic of discussion. On the first day of drafting, [21 House Republicans](#) signed a letter in support of preserving clean energy tax credits. These Republicans represent districts which received billions of dollars of investment under the IRA.

Both chambers must agree on an identical budget resolution for the reconciliation process to proceed. Because the Senate appears open to modifying its plan in favor of the House's single-bill approach, a second House floor vote would be required.

Timing and Outlook

With reconciliation talks now set for late March into early April, a compromise budget package might reach the Senate and House floors before the Easter recess (which begins April 11) at the earliest—though that timeline could easily slip. While some news outlets report that a House-Senate budget resolution may be considered the week of April 7, many industry participants expect the clean energy tax credit negotiations will not be resolved until much later in the year—perhaps December.

Simultaneously, the debt limit remains a pressing concern if not ultimately included in the final FY 2025 budget. While House Republicans built a \$4 trillion debt-limit increase into their resolution, the Treasury has been using extraordinary measures since January 21. Barring new legislation, these measures may suffice until June or July—after which the government could face a default if Congress fails to act. The debt limit discussions may distract lawmakers from the budget reconciliation negotiations.

Key Political Threats to Tax Credits:

While outright repeal of IRA clean energy credits now appears less probable due to internal Republican divisions, we are focused on three risks that could be most impactful for investors:

- **Credit Transferability Adjustments:** While some Republican leaders have explored reducing or eliminating credit transferability as a cost-saving measure, major financial institutions and domestic manufacturers strongly favor maintaining it. They see transferability as essential for ensuring liquidity and supporting ongoing U.S. project investment. [Recent comments by House Budget Chair Jodey Arrington](#) suggest that instead of a sweeping repeal, the GOP may pursue a more “thoughtful” phaseout of these credits—aiming to transition gradually while minimizing market disruption.

- **Domestic Content Requirements:** There is discussion among lawmakers about shifting the current 10% domestic-content bonus to a more mandatory requirement, along with stricter Foreign Entity of Concern rules. While such measures could impose additional compliance costs on utility-scale projects, most proposals are expected to include grandfathering clauses that will protect projects already in progress through 2025–26. This approach would help balance the goal of enhancing domestic production with the need to maintain investment stability.
- **Agency Resource Constraints:** Recent reports indicate that some agency teams—such as the one reviewing Low-to-Moderate Income adders—have been downsized significantly, which could result in administrative delays for certain confirmations. However, given the critical role these programs play for both job creation and investment incentives, stakeholders expect that workarounds will be implemented to manage any short-term backlogs. In other words, while processing times might lengthen, the overall framework is likely to remain intact.

Other legislative risks—such as early phase-outs of specific credits, the removal of certain tax credit adders, or overall reductions in credit values—are expected to have a more gradual impact on investors. Similarly, proposals like imposing a minimum capacity factor for clean energy technologies could be significant but appear less likely to be adopted. Importantly, any enacted changes are anticipated to include grandfathering provisions to protect projects already under construction, and developers are actively working to secure these protections for projects through 2025 and into 2026. Nonetheless, investors should continue to exercise due diligence by structuring transactions with appropriate indemnities and tax insurance against “change in law” risks, and by closely monitoring ongoing policy developments.

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II. EXECUTIVE ORDERS AND REGULATORY ADJUSTMENTS

Day-One Executive Actions and Their Impact

A table summarizing all the 2025 executive orders to date is available [here](#). On January 20, 2025, President Trump signed several orders that had immediate effects on our sector. The Unleashing American Energy order instructs agencies to review and in some cases rescind existing regulations, particularly those related to the National Environmental Policy Act. While this has led to tighter permitting for offshore wind projects, solar energy projects have continued largely without disruption. Court interventions have limited the scope of the funding freezes, ensuring that the IRA tax credits are not affected.

New Treasury Guidance on Tech-Neutral Credits

The Treasury Department recently issued final guidance that establishes a technology-neutral framework for both Investment Tax Credits and Production Tax Credits. This framework allows all eligible clean energy technologies, such as solar, wind, nuclear, and hydrogen, to qualify for the same clean energy credits.

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Federal Funding Suspension and Regulatory Implications

On January 27, the Office of Management and Budget issued a memorandum directing all federal agencies to suspend federal financial assistance under loans or grants. This memorandum was quickly challenged in court and was later rescinded by the White House. While federal financial assistance programs, such as loans and grants, provide an important source of capital for certain clean energy projects, tax credit transactions typically operate independently of such funding channels.

The memorandum reminded many of an executive order issued in April 2017 during President Trump's first term. That order directed the Treasury to review all guidance issued during the final year of the Obama Administration. Should the current Administration continue its review of all federal programs, as many expect, further regulatory actions may follow. Such actions could ultimately affect the financial prospects for energy and manufacturing projects that depend on federal funding.

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II. SECTOR-SPECIFIC MARKET ANALYSIS

Solar Energy

Resilience Amid Policy Volatility

Despite the administration's emphasis on fossil fuels and escalating trade tensions, the long-term growth of solar energy remains robust, driven by fundamental cost declines and technological advancements. [According to Wood Mackenzie](#), nearly 44 GWdc of solar capacity is projected to be

installed in 2025—an 8% increase over 2024—primarily fueled by data center demand and broader electrification efforts.

In recent developments, [President Trump announced sweeping tariffs](#), including a 10% baseline tariff on all imports and significantly higher rates on goods from countries accused of unfair trade practices. Specifically, tariffs on Chinese products have escalated to over 60%, while imports from the European Union and Japan face tariffs of 20% and 24%, respectively. These measures aim to reduce the trade deficit and bolster U.S. manufacturing but have introduced volatility into global markets.

For the solar industry, [these tariffs have led to increased costs for critical components](#) such as solar panels and inverters, many of which are imported from affected regions. Despite these challenges, the direct market impact has been moderated by a strategic pivot towards domestic manufacturing and diversified supply chains. Additionally, the industry's resilience is underscored by continued investments and policy support aimed at sustaining growth amidst these trade dynamics.

While the tariff landscape presents near-term challenges, the underlying drivers of solar energy adoption—cost competitiveness, technological innovation, and rising energy demand—continue to support a positive long-term outlook for the sector.

Economics Prevail

The recent [Wall Street Journal piece](#) points out that solar costs have fallen around 12% annually since 1990—making solar 10,000 times cheaper today than it was in the 1950s. This downward trajectory, akin to Moore's Law for semiconductors, suggests that even if U.S. policy temporarily slows adoption, global cost-competitiveness will continue improving. Developers are carefully monitoring tariff changes, but broad-based supply-chain diversification and strong investor interest in renewables have kept solar on track for robust growth.

Offshore Wind Energy

Short-Term Hurdles vs. Longer-Term Momentum

Executive actions—specifically the America's Continental Shelf Energy Initiative—have halted new offshore wind lease sales on federal lands, redirecting policy focus toward oil and gas. Companies like Ørsted, Equinor, BP, and Avangrid have experienced project cancellations or renegotiations in 2023–24. [Wood Mackenzie](#) anticipates only modest new capacity in 2025, as developers work through these delays.

Global Forces Continue to Drive Deployment

Nonetheless, technological advances highlighted in the [Journal article](#)—particularly ongoing cost reductions and improved turbine designs—position offshore wind for eventual acceleration once permitting uncertainties ease. GE Vernova, Vestas, and Siemens Gamesa are championing next-generation turbine technology and more efficient installation vessels, laying the groundwork for a faster ramp-up post-2025 if political winds shift.

Onshore Wind Energy

Stable Growth Despite Regulatory Scrutiny

While the same executive order calls for a permitting review on federal lands, onshore wind mostly occupies private acreage, limiting direct vulnerability. In high-wind states like South Dakota, local politics (e.g., Lava Ridge's opposition in Idaho) present obstacles, but established players—NextEra Energy's stock, for instance, remains stable—suggest that onshore wind's immediate outlook is favorable.

Economies of Scale and Cost Declines

According to the [Journal article's](#) core thesis, wind energy is subject to predictable cost declines—though at a slower rate than solar—and has shown steady improvements in performance. As these declines continue, the fundamental competitiveness of onshore wind versus fossil fuels is likely to strengthen. Even temporary disruptions to federal support are unlikely to reverse the broader, economics-driven shift in power generation portfolios.

Nuclear Energy

Expanded 45V hydrogen credit regulations now allow at-risk nuclear plants to produce hydrogen, diversifying their revenue streams and preserving critical baseload capacity. Certain operational reactors have also generated billions of dollars in 45U credits, which are trading at premium prices. Bipartisan policy support—and the fact that many of these plants are operated by some of the nation's largest utilities—suggests these credits enjoy substantial insulation from shifting political winds.

Growing Demand from Tech and AI

Rising power needs—particularly for AI-driven data centers—are spurring renewed interest in nuclear's around-the-clock, low-carbon electricity. [Wood Mackenzie research](#) suggests U.S. nuclear capacity could potentially triple by 2050 if cost, permitting, and technology hurdles are addressed. Recent moves, such as Constellation's plan to restart part of the former Three Mile Island complex

and NextEra's exploration of reactivating the Duane Arnold plant, demonstrate how restarts could help meet surging demand. Meanwhile, tech giants eager for consistent clean power have begun signing long-term power purchase agreements (PPAs) with nuclear operators. This appetite for reliable, 24/7 carbon-free electricity underscores nuclear's appeal to the private sector, even as construction of new large-scale reactors remains costly and time-intensive.

Support and Advanced Reactors

Smaller, modular reactor designs hold promise for cutting both cost and deployment timelines, although the first [U.S. SMR project was canceled in late 2023](#), highlighting ongoing risks. Going forward, government involvement—through stable tax credits, streamlined permitting, and regulatory clarity—will be essential for unlocking capital and accelerating the adoption of advanced nuclear technologies. If successful, these efforts could create a vibrant new chapter for an industry once seen as in long-term decline.

Advanced Manufacturing

Reshoring Gains and Domestic Manufacturing

The focus on domestic manufacturing and resource development has drawn bipartisan support for the IRA's Section 45X credits, which remain particularly appealing for their lack of recapture risk and immunity from prevailing wage and apprenticeship requirements. Recent [Wood Mackenzie findings](#) indicate that tariffs and tax credits—45X among them—have catalyzed a rapid rise in U.S. manufacturing capacity for solar modules, batteries, and other clean-energy components:

- [Solar Surge](#): Within two years, U.S. module manufacturing capacity has quadrupled from about 9 GW/year at the end of 2022 to over 30 GW/year by mid-2024. While this expansion solidifies the domestic supply chain, it also slightly raises production costs (projected around \$0.41/W in 2025 vs. mid-\$0.20/W for imports).
- [Battery Boon](#): U.S. battery manufacturing for grid-scale storage is also climbing quickly. Analysts expect domestic producers to achieve cost-competitiveness with Chinese imports by the late 2020s, driven by both tariffs and IRA-driven subsidies.

Although these measures support reshoring, they can add cost and complexity for developers and investors, who must balance the higher price of domestically made components against the potential risk of import disruptions—and the value of bonus credits tied to domestic content. Whether this long-term approach to “Made in America” pays off depends on stable policies, continued tax credit clarity (e.g., maintaining 45X), and further investments in the downstream supply

chain. Nonetheless, the shift to U.S.-sourced critical minerals and manufactured components is increasingly viewed as integral to energy security and economic strategy, with bipartisan backing ensuring that such policies will likely endure even amid evolving political landscapes.

Emerging Technologies

Broadening Eligibility Through Tech-Neutral Credits

Beginning in 2025, the ITC and PTC evolve to “tech-neutral” credits (48E and 45Y), potentially opening the door to broader clean energy eligibility. However, as the transition is relatively new, pathways for less-established technologies can be administratively cumbersome. Despite these hurdles, the overarching trajectory—steep cost declines, rapid scaling, and strong market demand—remains in place for emerging sectors like long-duration storage, synthetic fuels, and advanced grid solutions.

Electric Vehicles and Infrastructure

Steady Adoption Despite Legislative Uncertainty

Rumors persist that EV tax credits and charging infrastructure incentives could be pared back under the Unleashing American Energy order. [Wood Mackenzie forecasts](#) that if consumer (30D) and commercial (45W) EV credits were cut—as some in the administration have proposed—U.S. plug-in adoption could drop from an expected 32% to about 23% by 2030. Additionally, easing EPA tailpipe standards (requiring roughly 70% EV penetration by 2032) and removing California’s ability to set stricter emission rules would further slow growth.

Impact on Charging Infrastructure

This same executive order calls for [a 90-day pause](#) to review the National Electric Vehicle Infrastructure (NEVI) and Charging and Fueling Infrastructure (CFI) programs—together allocating \$3.2 billion in total. While roughly \$600 million has already been awarded for over 4,500 charging ports, the majority of these funds remain in limbo. NEVI-backed projects represented only a fraction of total charger installations in 2024, but a prolonged review could delay additional funding, ultimately dampening near-term infrastructure expansion.

Outlook for Investors

Even if political changes temporarily slow adoption, Wood Mackenzie notes that the overall EV market direction remains positive, driven by declining battery costs, broad consumer acceptance, and strong private investment. Nevertheless, institutional investor participation in EV tax credits

has so far lagged other clean energy markets, in part due to smaller project sizes, more complicated financing structures, and the sector's vulnerability to policy swings. Over time, however, a stable framework for incentives and permitting could help unlock more scalable deals and accelerate capital flows into EV infrastructure.

Carbon Capture and Hydrogen

Is 2025 the Breakout Year for CCUS?

Carbon capture, utilization, and storage (CCUS) continues to gain traction as a vital bridge between today's fossil infrastructure and future net-zero ambitions. Global capacity could more than double by 2030, with [Wood Mackenzie projecting](#) a record number of final investment decisions (FIDs) in 2025—potentially 200 projects spanning 500 Mtpa of capacity. Rapid project announcements and an uptick in mergers and acquisitions (like ExxonMobil's \$4.9 billion Denbury deal) signal that the industry is moving beyond early-stage enthusiasm, emphasizing scale and commercial viability.

Challenges and Outlook

Despite this momentum, financing CCUS remains challenging, as most projects lack inherent revenue streams and rely heavily on government incentives. High capital intensity also encourages companies to reduce risk through strategic partnerships or asset divestments. Delivering on the current pipeline will hinge on timely FIDs, functional CO₂ transport networks, and policy clarity—particularly around cross-border CO₂ shipping and permitting. If 2025's planned build-outs succeed, CCUS could shift decisively from announcements to execution, providing a scalable decarbonization tool for high-emitting industries worldwide.

Tapping New Solutions for Industrial Decarbonization

Hydrogen is gaining rapid traction as a cornerstone of industrial decarbonization, while also offering long-term energy security and grid resilience. Finalized rules under 45V now offer up to \$3/kg for clean hydrogen and expand eligibility to include production using electricity from existing nuclear power plants and natural gas facilities with carbon capture. The rules also allow flexible compliance—such as annual matching and the use of Energy Attribute Certificates (EACs)—reducing complexity for developers. This regulatory clarity, is expected to accelerate final investment decisions, attract capital, and broaden institutional participation in the hydrogen. Thus, clean hydrogen could remain on a rising trajectory, bolstered by private capital and global policy pressures favoring lower emissions and energy reliability and diversification goals.

IV. OVERALL TAKEAWAYS

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Thank you for your continued trust and confidence. I look forward to discussing these developments further at our upcoming roundtable investor meetings.

Sincerely,



Bryen Alperin
Partner & Managing Director
Foss & Company

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