

## SPECIAL REPORT

# How will the new US government impact energy storage?

*Insights into the future prospects for the energy storage sector under the Trump administration from a panel of experts convened by Tamarindo, in partnership with Troutman Pepper Locke*



## Acknowledgements

This report summarises the panel's main conclusions. The members of the panel were:

- **Ingmar Grebien**, managing director at Goldman Sachs
- **Niels Jakeman**, head of origination energy Europe at NORD/LB
- **Richard Wagstaff**, head of project development at Gore Street Capital
- **Peter Rood**, chief development officer at Spearmint Energy
- **John Leonti**, partner at Troutman Pepper Locke
- **Roberto Jimenez**, executive director, BW ESS
- **Victor Owen**, director at Green Giraffe Advisory
- **Vaughn Morrison**, partner at Troutman Pepper Locke
- **Leonard Monni**, analyst at BW ESS
- **Christine Byrnes**, partner at Troutman Pepper Locke
- **Ali Qureshi**, country manager UK at Atlantica Sustainable Infrastructure

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## Summary

The result of the 2024 US presidential election means there is uncertainty about future prospects for the renewable energy sector. New president Donald Trump has been hostile in the past towards parts of the renewables industry – particularly wind energy – but has also made pronouncements indicating he is more favourably inclined to solar energy, for example. Though Trump has been highly critical of wind turbines, in contrast, during a speech in 2023, Trump acknowledged that he did “like the concept of solar”. Given these mixed messages about different types of renewable energy, there is considerable doubt about how the sector will be impacted by the new administration. However, despite widespread doom-mongering, there is optimism in the energy storage sector that its current growth trajectory will be largely unimpeded by the change in government.

Given the prevailing uncertainty, and in an effort to address the concerns of energy storage investors and developers, *Tamarindo*, in partnership with *Troutman Pepper Locke*, convened a panel of energy storage industry experts to discuss the following topic ‘Post-US election, how can you maximise global energy storage investment in 2025?’ Panellists acknowledged that there are concerns that – given Trump’s scepticism about some forms of renewable energy – there may be a roll back of the Inflation Reduction Act (IRA), including its standalone storage investment tax credit [ITC]. However, the counterargument is that Trump’s supporter base – specifically, states that voted for him in the US election – have benefitted most from the IRA’s provisions and therefore the Act will remain relatively unscathed.

Yet participants also heard that of particular concern to the storage industry is potential tariff increases on imports from China, which is the overwhelmingly dominant player in the energy storage component manufacturing sector. Tariff uncertainty has had a particularly damaging impact on the solar industry in the past and there are fears that it could have a similarly destabilising effect on energy storage.

# National security concerns among storage demand drivers

Battery storage is, in some senses, distinct from other renewables assets and therefore is more resilient to political turbulence, panellists heard. John Leonti, partner at Troutman Pepper Locke, said: “There are lots of different aspects of batteries – in addition to addressing solar and wind reliability – such as national security that are driving the market, so we certainly see the battery market as its own distinct market and an important reliability play.” Leonti expects the battery storage industry to expand further. “We see the battery storage market continuing to grow – the pace at which that growth happens is anybody’s guess, but we currently do not see a slowdown and we certainly see our IPP clients that are standalone storage players raising more capital and getting ready to deploy their assets across the US.”

## Risk of equipment shortages

Storage market players are taking steps to guard against the impact of potential tariff increases. Niels Jakeman, head of origination energy Europe at NORD/LB, said that some clients in the US were concerned about the risk of potential tariffs being introduced on key imports. He added that lenders have started to raise questions around “what that might mean in terms of a project being fully funded, who would be paying for it, and whether there may be a delay impact of equipment being imported?” Jakeman said clients were currently involved in trying to manage this risk and find ways to mitigate it within the existing structure.

Addressing the risk of projects being delayed, as well as potential equipment shortages, are key focusses. Jakeman said that clients are “actively trying to include structural mitigants in terms of who’s taking the cost overrun in terms of potential schedule delay, and any projects that don’t have equipment arriving after January are more in focus”.

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## ‘Locking-in’ investment tax credits

Storage project stakeholders are also seeking to ensure that storage equipment remains eligible for investment tax credits even if there are legislative changes. While BW ESS does not currently have storage assets in the US, Roberto Jimenez, the company’s executive director, said that he was aware that parties with storage projects at an advanced stage in the US were trying to “lock in” the investment tax credit: “You get the equipment in this year and get it grandfathered.” However, Jimenez added that it was known in the market that, for early-stage project developers, “things are slowing down because they’re getting worried about what could happen”. He said this could present an opportunity for some storage owner-operators to partner with some more distressed parties that have earlier stage pipelines and are therefore now facing a more uncertain future.

Leonti pointed out that there are usually temporary rules put in place if there are any significant changes in legislation. “What that means is, let’s say the ITC is going away, there is likely to be a transition period”, he added. Leonti said a lot of developers, particularly those that are well capitalised, are putting safe harbouring in place for equipment, for example, which is similar to the approach taken by the wind industry in the past when the production tax credit (PTC) was no longer in place. “We would expect this to happen if the IRA [Inflation Reduction Act] and ITC were cut back”, he remarked.

The expectation is that, given the high demand for energy storage in the US, even if the standalone storage ITC was to be abolished, it would merely deter the advancement of some proposed projects, rather than stopping storage deployment altogether. Vaughn Morrison, partner at Troutman Pepper Locke, said that, while the IRA was “impactful legislation from a budgetary standpoint”, there are elements of the Act that are more vulnerable – and other more long-standing US government expenditures that are much more significant – and therefore, if the new administration sought to cut government spending, there is “lower hanging fruit” than the storage benefits under the IRA. Morrison acknowledged that if the investment tax credit for energy storage was withdrawn it would be to the detriment of the sector, but it would be a “missed opportunity rather than the death knell”. Morrison concluded that there were plenty of storage projects that would still go forward without the benefit of the investment tax credit. He added that the outlook for “change of tariff risk”, in most scenarios, was similar.



## China-related national security concerns

Morrison said that what “scares me more” from a trade standpoint was the national security perception around Chinese batteries on the US bulk power system. He explained: “There was a famously imperious executive order from Trump in the first administration that purported to immediately prohibit the connection of Chinese equipment to the bulk power system – of course, Chinese equipment is ubiquitous in the US bulk power supply, like any modern utility grid.” Morrison said that, while ultimately the order came to nothing, it was possible that there could be a similar order with “more teeth” that could be destabilising, as it would take some time to develop a domestic supply chain.

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# US and European storage markets could converge

The US and Europe have adopted different approaches to facilitating the deployment of renewables and energy storage which resulted in the respective markets evolving in different ways – however, it is possible that changes to, or the withdrawal of, the ITC for standalone storage in the US could result in the two markets beginning to converge more, panellists were told. Ingmar Grebien, managing director at Goldman Sachs who oversees the firm's battery platform GS Pearl Street, said that when comparing incentive regimes for energy storage in the US and Europe, the ITC in the US was a "large scattergun approach because the barrier to entry is relatively low in that projects have relatively easy access to the ITC". He added that worked well in terms of "putting dollars to work" and increasing the number of projects, but, on the flip side, it introduced the risk of overbuild. In contrast, Grebien said Europe has historically had "more of a market-based approach to supporting the energy transition, which took the form of auctions and contracts-for-difference, for example, an approach aimed at maximising the impact of taxpayer money, but, on the flip side, it led to a slower roll out of support". He continued: "In Europe energy storage business cases are still largely based around market revenues and capacity market auctions, but with very limited other support mechanisms."

Grebien said this has had an impact on how capital structures have evolved. "In the US, the typical capital structure for BESS projects is 30-50 per cent of investment tax credit as the first financing tranche, then you might have some debt financing on top of that followed by equity." The typical capital stack in Europe is very different, Grebien added. "As projects do not have that advantage [that is, ITCs], they will enter into floor contracts with large traders and raise bank financing against that or try to raise project financing on a merchant basis – as a result the individual traders and lenders play a much bigger role in terms of getting projects up and running." This means that, in the US, if the ITC dwindles or is withdrawn, in the longer-term we could see less of a difference in how storage projects are financed in Europe and US, according to Grebien. "More projects would have to get a first tranche of project financing from financial institutions as opposed to the ITC", he said. "Maybe you will see some of the rapid growth actually slowing down if that happens, which you can argue is not necessarily a bad thing at least for the projects that are already in the pipeline. It might improve the outlook in terms of economics and take away some of the overbuild risks."

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# Concerns tariff changes could delay projects

Electricity demand is accelerating in the US and it still costs less to build a renewables plant than a more traditional fossil fuel power station, said Richard Wagstaff, head of project development at Gore Street Capital. He added that energy storage will make renewables plants “more useable, more dispatchable” and improve the economics of such plants, so the “fundamentals are there over the medium term”. However, he also said that a 50 per cent reduction in capex – due to the ITC – makes a huge difference “especially where you see big peaks and troughs in revenue in markets such as Texas”.

Wagstaff said that the situation regarding tariffs was a bigger concern. “If I was contracting right now, then I’d be hesitating before executing until we have more clarity”, Wagstaff added, highlighting how uncertainty over tariffs has had a damaging impact on the solar industry in the past. Panellists also said that an increase in battery industry tariffs in the US could potentially lead to an oversupply of batteries, and therefore a decrease in prices, which could be to Europe’s benefit.

The fact that Republican-voting states have been among the biggest beneficiaries of the IRA means that fears about the Act being scaled back may be unfounded. Victor Owen, director at Green Giraffe Advisory said the question is not whether energy storage is going to stop being deployed in the US, but how fast it’s going to grow. When forecasting, Owen pointed out that it was important to take into account political issues as well as financial considerations. “A number of Republican lawmakers have stated their support of the IRA because their states have been getting a lot of subsidies and a lot of jobs have been created as a result of the act – Georgia and Texas being examples”, he said.

Owen agreed that tariffs represent the biggest risk. “There are some manufacturers in the US, but they won’t be able to service the full pipeline of projects – it’s a question of how accessible equipment will be to developers, and under what conditions, that will determine the pace of deployment”, he said.





## Appetite for fossil fuel power plants dwindling

Regulatory uncertainty constitutes the biggest risk facing energy storage in the US, according to BW ESS analyst Leonard Monni. He added that tariffs and the potential for the removal of tax credits will “ultimately hurt the investment case”. But Monni said the market fundamentals, such as the rise in electricity demand means there remains a strong business case for energy storage. However, Monni also said that if President Trump imposed high tariffs on the import of LFP cells from China, which is the primary manufacturer of such products, the only way of circumventing such an issue would be to “find another technology and we’re still quite far away from that”. Meanwhile, Christine Byrnes, partner at Troutman Pepper Locke, said that, despite President Trump’s exhortations to increase oil exploration – calling on the industry to “drill, baby, drill” – an escalation of oil sector activity cannot “happen overnight”. She also echoed Wagstaff’s view that it is cheaper to build a renewable plant than a more traditional fossil fuel power station.

It is doubtful that the US will return to a scenario in which traditional gas-fired power plants are heavily relied upon. There is little appetite in some parts of the US to build such plants, Peter Rood, chief development officer at Spearmint Energy, said. “Texas has unsuccessfully made several attempts to incentivise gas builds – the state does, however, have some loan programmes that have gained a little traction”, he added. “Crucially, it takes more time than the length of an administration to build traditional fossil-fuelled power plants, so I would expect investors would be hesitant to invest in projects that could be jeopardised by a change of administration, especially given the growing trend in clean power solutions. Additionally, given the global race for megawatts to support data centre demand growth, the procurement time for new turbines is exceeding three years, further reducing their appeal.”

Rood also said that the way revenues in ERCOT have changed due to the huge penetration of solar power has resulted in gas turbine technology being less viable. “We are seeing a move away from a big, multi-hour midday peak to two shorter peaks, and a lot of gas turbine technology is not designed to align with that”, he explained. “Instead, they’re designed to dispatch in much larger increments because of the start-up costs and runtime. Batteries are simply cheaper, faster, cleaner, and stronger than inefficient, dirty gas-fired peakers that still use technology developed over 50 years ago.”

# What are the prospects for US battery manufacturing?

Jakeman said that, from a financing perspective, it is easier to focus on projects that have a “short-term dependency on the IRA”. He added that, less appealing from a financing point of view are manufacturing projects that depend on tax credits for a longer period of time, which is somewhat ironic given the prevailing political landscape and, specifically, Trump’s aim of boosting US manufacturing.

How realistic is the aim of developing a US battery manufacturing industry? Owen said that it would not be easy to create a major US manufacturer of the scale needed to challenge China’s dominance. “Creating a new supply chain in the US, or anywhere else in the world, from scratch in four years is extremely difficult and would require a lot of investment, so everything is kind of tied to the IRA – the IRA was meant to foster jobs and investment in the US, so if you take that away, that [developing a domestic US battery supply chain] goes away as well”, he said.

## Higher capacity factors with wind

The wind industry has been particularly concerned about the incoming US administration, particularly given President Trump’s criticism of the sector in the past. Rood said the slowdown in wind energy deployment in the past had been largely due to “state and local issues”, including well-organised opposition to wind. “The easy places to build wind in the US have all been built on, so areas that are being discussed now are more complex, further away from transmission, or closer to populated areas”, Rood remarked. “I agree that solar is very productive and very low cost in many parts of the US, but in the Northeast, mid-Atlantic, and Midwest, you’re finding capacity factors in the low twenties, whereas with wind you can have capacity factors 50 per cent or higher, which is more cost effective.”



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## The storage classification question

The way energy storage is perceived by investors and financing banks could affect the roll out of the asset class in the context of the energy transition, panellists heard. Grebien said that energy storage needs to decide whether “it wants to be classic renewables or not in terms of actual asset class”. He added: “I would make the case for not [being a classic renewable] because if you are a renewable asset, you only sell power. This means to some extent, you are ‘wrong way’-positioned for the energy transition because the more renewables you have that produce at zero marginal cost, the lower your absolute price level and your capture rates.” Grebien said that batteries were the opposite in that they “do not make money from selling power and the flat price, but rather, simplistically, from buying low and selling high, which means they don’t really care about the flat price but rather the price volatility”. He added that “more renewables in turn drive imbalances and volatility”. Consequently, batteries are actually ‘right way’-positioned for the energy transition and renewables build out, which makes them a very different asset class on a merchant basis, Grebien argued.

However, Jakeman said that energy storage systems could be seen as key part of a renewable asset, as increasingly renewable projects will be financed as hybrids in order to mitigate curtailment and capture price risk. He added that it was clear that reaching net zero will need a large amount of energy storage, but that it was hard to see a scenario in which it was financed on a merchant basis because banks are already “reaching limits on the amount of merchant they can take”.

Jakeman said that, when combining solar with storage, there is an uplift in the amount of debt that a project can support due to the “negative correlation between assets”. Jakeman added that, fairly soon, the majority of renewables projects will be hybrids – in the sense of being co-financed – and there will be better offtakes, better debt terms available and hence better equity returns.

## What are the prospects for longer duration storage?

With regard to longer duration storage, Rood said that he doubted that the markets are “going to pay for eight-hour or longer storage projects”. He added: “Is the answer to build a six or eight-hour battery or is it to just build more four-hour batteries and let the grid operator dispatch them sequentially? I think it’s the latter.” Monni said that if there was a market shift to longer duration storage, this would result in a need for larger capex, which could pose potential issues with financing. “We will need financing banks, which might be averse to the risks associated with the technology”, he said.

## How could possible US tariff hikes impact on European and Asian markets?

Tariff hikes in the US could potentially make the Asian market more appealing for battery storage investors. “Japan could be an interesting market for some people”, said Jimenez. “If you can team up with maybe a big trading house in Japan and optimise the business model for higher returns, you could do something interesting there.” He added: “In Europe, the power prices in Germany and the Netherlands are very interesting, though there are challenges like outdated, and changing policies, related to grid.” Wagstaff agreed that, if there is uncertainty in the US for a period, it would present an opportunity to focus on European assets and “bring grid connections and other elements that make up the project into the current year”.

## Potential storage labour shortages

One other risk that should be considered was labour shortages given pronouncements from the president-elect about deporting undocumented immigrants, panellists said. While there was no suggestion that the battery storage industry was employing undocumented workers, mass deportations could mean that there would be more competition for employees in a shrinking labour pool. Data from the Center for American Progress in 2021 indicated that 23 per cent of the US construction workforce, for example, is undocumented.

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# Conclusion

While there is understandable uncertainty in the energy storage sector regarding the potential impact of the incoming US administration on renewable energy, there is optimism that demand for utility scale batteries is such that, even the scaling back or withdrawal of federal tax credits for storage, will have a limited impact on the sector's growth. That said, forward-thinking developers are also taking steps to "lock in" investment tax credits via grandfathering to ensure disruption to equipment and component supplies are kept to a minimum.

Of more concern is potential changes to tariffs impacting imports from China, which is the world's biggest exporter of battery storage components. Tariff changes have had particularly damaging effects on the solar industry in the past and there are fears that a similar scenario could also occur in the storage sector. One impact of this could be storage investors turning their attention away from US markets and instead focussing on opportunities in Europe and Asia.

However, despite the prospect of a degree of political turmoil, overall the storage market fundamentals remain strong, and the fact that many Republican voting-states have been among the biggest beneficiaries of the Inflation Reduction Act indicate that its provisions – including the standalone storage investment tax credit – are popular with the new administration's supporter base and therefore fears about them being withdrawn or scaled back may be unfounded.

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