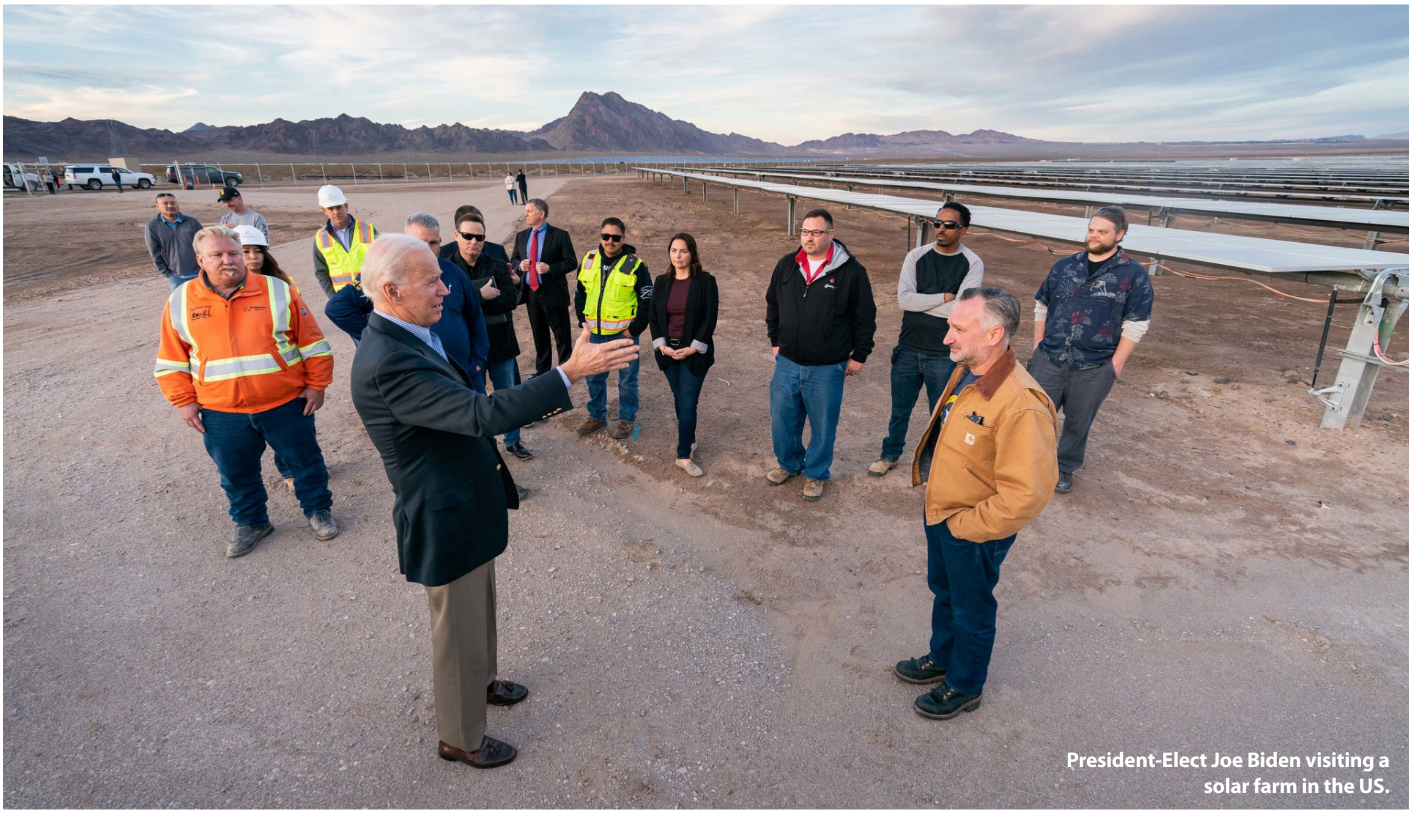
Building Back Better: Can Biden turn the policy tide for US solar?

US election | Joe Biden's victory in November's US election may have taken some time to certify, but there's every chance his tenure in the White House will be worth the wait for US solar. Molly Lempriere looks at what a Biden administration will do for the industry.



President-Elect Joe Biden visiting a solar farm in the US.

Credit: Nextracker

Environmentalists clamoured to celebrate the election of Joe Biden after a tense and extended wait to find out who would become the next president of the United States in early November. Throughout his and his running mate Kamala Harris' campaigns, the need for action on climate change, including support for renewables, had been front and centre, giving hope to the solar sector of further support.

"President-Elect Biden's plan to combat climate change enables our industry to create hundreds of thousands of well-paying jobs across the country," says Abigail Ross Hopper, president and CEO of the Solar Energy Industries Association (SEIA). "We look forward to working with his administration and Congress on policies that reduce carbon emissions including tax policies that pave the way for greater adoption of solar energy and energy storage."

But while optimism pervades the sector – with multiple solar manufacturers seeing their stock prices rise in response to the win – much remains to be seen about Biden's clean energy policies and their prospective impact on the sector.

Industry bodies have begun to voice their hopes that some of the headwinds created during outgoing President Donald Trump's term, such as increased tariffs and reduced support, will now be reversed. But many remain cautious, highlighting the need for bipartisan support, and are apprehensively waiting for the results of the senate race, with a run-off election in Georgia set for early January 2021.

For example, in a statement congratulating Biden on his electoral victory, US solar manufacture First Solar said it was "hopeful that policymakers on both sides of the aisle will be able to embrace the need for a long-term renewable energy policy that will deliver the certainty required to attract investment, drive R&D, and create stable solar jobs".

The significance of re-joining the Paris Accords

Throughout his campaign, Biden repeatedly stated that one of his first moves when he takes office on 20 January 2021 will be to re-join the Paris Agreement by executive order.

When the US formally withdrew from the historic agreement on 4 November 2020 – just a day after the election itself – the then presidential nominee took to twitter to declare: "Today, the Trump administration officially left the Paris Climate Agreement. And in exactly 77 days, a Biden administration will rejoin it."

This will send a strong signal to the US solar sector about Biden's priorities during his four-year term. Bill Parsons, COO of the American Council on Renewable Energy (ACORE), explains that it was both significant in terms of the symbolism of the action as well as making "tangible progress towards climate targets, and the critical role that solar and other forms of renewable power are going to play in achieving those objectives".

Beyond the commitment to re-join the Paris Agreement, there are not many details known about the incoming President's support for clean technologies. Speaking on a press call recently, SEIA CEO Abigail Ross Hopper confirmed that in her discussions with the incoming team, they had not yet indicated which direction they would take with regards the Investment Tax Credit (ITC), for example.

But Biden has announced one significant energy policy, committing to invest $2 trillion over his first term to accelerate America's transition to a carbon pollution-free power sector by 2035. While this may seem ambitious for a nation that still relies on fossil fuels for 63% of its electricity according to the US Energy Information Administration, it is within reach according to solar manufacturer Nextracker's CEO Dan Shugar.

Shugar says that in order to understand the trajectory for US solar, it's important to reflect on the journey the sector has undergone so far, and in particular over the last 15 years. In 2005, solar cost "over an order of magnitude more than it does now", Shugar says, and played a very small role in the US power sector.

"15 years ago we built the largest solar plant in the world, which was 10MW, and took us a year. We're doing 10MW now every day before breakfast, we do another 10MW by lunch, another by dinner, then we do another one overnight. So that's the clip we're moving at, how fast and how much things have happened in the last 15 years," he says.

The SEIA has set an ambitious goal of solar generating 20% of all US electricity by 2030, a significant jump from today's roughly 3%. That would require growing at an average rate of 18% annually, and installing more than 500GW of solar in less than a decade. Doing so would help hugely with reaching a net zero grid by 2035, but would require strong political support.

"I'm very optimistic we can land a zero or near zero grid, but in terms of how that plays out pragmatically, we need some cooperation with a broader constituency of our political leaders. Hopefully, we can get to more cooperation between our two respective parties to implement that soon," Shugar says.

Rolling back Section 201: the carrot not the stick

Looking forwards at the policy changes that could prove the most important for solar, changes to PV cell and module tariffs could bolster US manufacturing and the industry at large substantially.

In 2018, President Trump brought in tariffs for the import of solar cells under Section 201 of the Trade Act of 1974. These were set at 30%, with a 5% declining rate per year over a four year period, intended to boost US manufacturing. Following a challenge from the industry, bifacial tariffs were made exempt from Section 201, along with 2.5MW of cells.

But in November 2020, and following a long and protracted legal battle with the Trump administration, the exemption for bifacial panels was repealed in a proclamation issued by President Trump. The move was initially held off by Judge Katzmann of the US Court of International Trade, who issued a temporary restraining order, which meant the motion – which will see the 20% tariff extended to bifacial as well as increasing the tariff from 15% to 18% for CSPV and modules from 2021 – had to be further considered.

President Donald Trump said that the exemption of bifacial panels had "impaired and is likely to continue to impair the effectiveness" of the Section 201 safeguard measures. Additionally, he stated that exemption had prevented the tariffs from being as effective as envisioned, and as such would need to increase in order to "achieve the full remedial effect envisaged".

The duties have been consistently criticised by the US solar sector, and are largely viewed as creating an additional burden. Across the US and the world, solar has to compete on a cost basis with technologies such as wind and gas that are also seeing dramatic price drops. As such, increasing the cost of solar installations for homeowners, utilities and businesses will cause many to choose another energy technology.

Following the mid-term review of the tariff in early 2020, the SEIA's Ross Hopper stated: "While the solar tariffs have resulted in some new US manufacturing investments, total domestic cell and module capacity falls far short of demand. The tariffs have effectively constrained solar development in the United States."

There have been arguments made in favour of the tariffs, for example when they were first announced a number of international manufactures such as Hanwha Q CELLS, Jinko and LG established module plants in the US. But by the first half of 2019, just one cell producer remained in operation, according to the US International Trade Commission's review. There was an initial decline in imports of PV components between 2017 and 2018, but by 2019 it was again on the increase. Similarly the financial performance of US cell producers had declined just a year into the tariff.

The impact of Section 201 was compounded in some ways by the additional introduction of Section 301 tariffs, which placed a 25% tariff on Chinese imports. Nextracker's Shugar says that these were simply too large, and needed to be modified in an appropriate way. He highlights that it wasn't just the cells themselves being impacted by the tariffs, but the manufacturing equipment, which had become more expensive to import.

Going forwards, much of the industry is hoping for more "carrots versus sticks" policies, as SunPower's director of market policy and strategy Suzanne Leta explains. "With respect to the Biden-Harris administration, we would like to see them prioritise encouraging clean energy innovation through things like tax credits, loans, grants, those types of carrots, which are proven to be effective."

ITCs: the 'single most effective' clean energy policy

One of the most prominent hopes from the solar sector is for the extension of the ITCs, with SunPower's Leta describing it as the company's "first, second and third priority".

First introduced in 2006, the ITC has been one of the most important federal policy mechanisms to incentivise clean energy. Since its introduction, the US solar sector has grown significantly and has a 52% average annual growth rate. In 2015, the policy was further extended by five years helping to provide certainty to companies looking to develop long-term investments, and is expected to have nearly quadrupled solar deployment by the end of 2020, spurring US$140 billion in economic activity.

The rate was set at 30% when it was extended, dropping to 26% in 2020 as part of a phased degression which, in the policy's current guise, will see the credit drop again to 22% in 2021, before the scheme is set to come to an end.

With the deadline approaching, it had been hoped that the credits would be once again extended in order to spur on the solar sector. But when the federal tax provision was released at the end of 2019, what the SEIA has referred to as "the single most effective current policy available to encourage clean energy deployment" was not included.

This came as something of a surprise to the industry, with SEIA's Ross Hopper suggesting in a recent press call that the "extension of the investment tax credit was sort of in the deal until the very last moment". "It was not necessarily congressional pushback, but perhaps White House pushback," she said.

Along with changes to the tariffs, an extension to the ITC is one of the SEIA's key legislative hopes for the Biden-Harris administration listed in a document released by the trade body detailing their hopes for the first 100 days. In addition to a long-term extension at the rate of 30%, the association is calling for a direct pay or cash grant option for the ITC in light of the poor health of the tax equity market, due in part to COVID-19, as well as the long-term ramifications of that on the pipeline of solar projects.

It is a sentiment shared by many in the solar sector, and in a letter to the US House and Senate leadership following news of Biden and Harris's electoral success in November, 45 organisations and companies spanning the environment, conservation, and clean energy called for support for clean energy including an extension to tax credits. They highlighted the impact the COVID-19 pandemic had had upon the clean energy workforce, with roughly 450,000 clean energy workers – or 13% of the sector's pre-pandemic workforce – still out of work.

"These are good jobs that paid 25% more than the national median wage in 2019," they continued. "In addition to reviving jobs, support for clean energy improves the overall health of the economy as it leverages private capital and saves consumers money in difficult times. It is also vital to America's global competitiveness and energy independence."

Going forwards, ACORE is confident that we will see an extension to the ITCs, with Parsons commenting: "What I can tell you is regardless of the outcome in Georgia, on January 5, we do see growing bipartisan support for these extensions." He says that both Democrats and Republicans were

All eyes on Georgia run-offs as Dems seek Senate control

By Liam Stoker, editor-in-chief, Solar Media

With incumbent President Donald Trump having reluctantly allowed for the transition towards a Biden presidency to start, the dust finally began to settle from an election in late November. But as Trump continues to cry foul, the reality is the US solar sector remains uncertain over what shape the four years following 20 January 2021 will take.

While the US election has delivered a fairly resounding win for the Biden-Harris ticket, it was not quite the complete repudiation of Trumpism some had forecast and, as a result, the Democrats have not yet sealed the hattrick of winning the White House, Congress and the Senate. The result of the latter will be decided by two run-off elections in the state of Georgia, scheduled for 5 January 2021, which will now become arguably just as hotly contested as the presidential election.

For the Democrats to be able to push through as much of their legislative agenda as possible, they need to control all three. Failure to regain control of the Senate will allow Republicans to block any prospective policy they find umbrage with or, as has been the case of late, simply decide to blockade for the sake of it being lobbied for across the aisle.

For the US solar sector, this could mean two critical pieces of supportive legislation – the Investment Tax Credit and Section 201 tariffs – could become embroiled in political deadlock or allowed to be adjusted to meet the Democrat's aims, depending on what happens in Georgia. Speaking at November's Solar & Storage Finance USA event, organised by PV Tech publisher Solar Media, Marathon Capital's Ammad Faisal described the outcome of the Georgia run-offs as a "US$200 million question", saying that the "whole picture changes if the Dems control the senate", regardless of Biden's much vaunted ability to 'work across the aisle'.

For the ITC, there is – thankfully – a "healthy probability" that such an amendment could pass, according to Roth Capital's Philip Shen, who pointed to the fact that Republican house leader Mitch McConnell included an ITC extension in a Bill introduced to the House earlier this year, indicating bipartisan appetite for it. Indeed, renewables are no longer the bastion of the Democrats, and an increasing number of Republican senators have come to support the industry in the US.

What could be more difficult to push through is an ITC for standalone storage. As it stands, energy storage facilities can benefit from an ITC but only if they are co-located with solar and installed at the same time. There has been a considerable push to relax these rules to further promote the installation of energy storage but, as yet, that change has yet to happen. Shen says it would remain possible for the Biden administration to push through, but it would be harder without control of the Senate.

Talk has also turned to how amendments to or an extension of the ITC could be enacted, given that it would require legislative change. Democrats did try to include the extension in the US stimulus bill earlier this year, only to see their efforts thwarted. Shen said a continuing resolution could be added to two potential bills – both the COVID relief bill and the omnibus spending bill – however probability on these fronts is "low", Shen said, given to a potential desire to "keep the COVID bill clean" to give it the best possible chance to pass.

Regardless of how an extension is implemented, the path to one is all the wider should the Dems complete a Senate win in Georgia. "If the Senate flips, then I'm pretty bullish on a robust extension of the ITC for solar and standalone storage… there's definitely a path to an extension with a 50/50 split," Ja Kao, CEO at Onyx Renewables, said.

Of a more complicated nature altogether is the future of Section 201 tariffs, which, further to Trump's presidential proclamation in October are set to rise to 18% next year and extended once again.

There is said to be questionable appetite to push back on Section 201 tariffs within Democrat ranks given their protective nature over US manufacturing, but even then, the Trump administration could make life all the more difficult. Shen said there was every expectation that the US Trade Representative will request the Trade Commission to conduct a study of the impacts of an extension to the tariffs. This would possibly open the window for Trump to extend the tariffs by a further three years before Biden's inauguration on 20 January. If these were to be extended for three years, there would also be no mid-term review, meaning it would be 2024 before tariffs could be repealed.

The impact such a decision would have on solar deployment is, however, open for debate. Solar deployment has accelerated in the US over the last four years regardless of the obstacles and hurdles thrown in its path, and as Kao says, the industry has "had to bob and weave for much of the last decade".

Any change of direction from a Biden administration would simply be upside the industry can capitalise on.

now supportive of renewable power, with the later particularly keen to incentivise the private sector to deliver on public policy objectives such as the ITC.

Leading by example: changes to federal procurement

A further policy change Biden could enact upon taking office to support the solar sector is changes to federal procurement. The US government is the largest buyer of power in the country, spending US$5.8 billion on electricity annually. Bringing in legislation that requires the US Department of the Interior to procure clean energy like solar could dramatically bolster the sector, as well as reducing government energy bills and its carbon footprint.

The SEIA's Ross Hopper says there is an "untapped opportunity" in federal procurement, with solar installations on public buildings and public land. "I think it would be more than simply leading by example, it would also provide a driver to the market," she said.

Estimates from the SEIA suggests there are 350 million square feet of federal buildings across the US, and if fitted with solar panels, that area could accommodate some 2,000MW of generation capacity.

The sentiment has already been echoed in the Democratic party, with US Representative Deb Haaland – who is reportedly a contender to lead the Department of the Interior – promoting changes to the leasing practices to expand the use of renewables at the expense of fossil fuels in an interview with Reuters.

Nextracker's Shugar points to the existing 'buy-American' federal policy, suggesting that solar would be a straightforward addendum.

"The advantage now is that where the costs are, you can see significant reductions in utility costs for these facilities," he says. "So [Biden] could directly require these facilities to use more renewable energy, which would lower their costs, provide more market and create more employment. And these are things directly under his control."

The beginning of change?

There is still a lot that we don't know about the Biden-Harris administration's policies and how they will impact the solar sector. While the new leader is set to have a much keener focus on climate change and be more supportive of the technologies that can support climate action than the Trump administration, with the burden of coronavirus and the economic impact the pandemic has taken, it is set to be an incredibly busy start to Biden's term.

Importantly, who controls the Senate – which we are set to find out in January 2021 - will have a considerable impact on the efficacy of Biden's administration, potentially leaving a lot of climate action up in the air despite numerous call for bipartisan support.

Throughout his campaign Biden maintained a strong focus on climate action, this alone is likely to give a boost to the renewables sector that views him as a safe pair of hands. Whether or not that can translate into direct action remains to be seen.

"Every plan is great on paper, but it takes leaders to implement it effectively," says SunPower's Leta. "And so we are looking forward to seeing who the Biden-Harris administration appoints. And we hope, or I should say we're optimistic that those appointees will have a deep understanding of distributed solar and storage in particular." ■