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Where next for renewables?

Against a backdrop of a sweeping power outage in Southern Europe, policy uncertainty in the US and market volatility everywhere, six industry insiders tell Amy Carroll and Anne-Louise Stranne Petersen how they view the sector's future

ast year was once again the warmest on record. It also saw the intensification of conflict in the Ukraine and the Middle East; astonishing advancements in artificial intelligence along with associated increases in power demand; and, of course, the re-election of Donald Trump to the US presidency.

Moving into 2025, we have witnessed a wave of erratic policy decisions from the White House, together with an unprecedented power outage across Spain and Portugal.

It is against this backdrop that six fund managers active in the renewable energy space came together to discuss how they are re-evaluating the opportunity set and planning for the future.

"There was a lot of speculation about what a second Trump presidency would mean in the run-up to the election, but few anticipated the sheer level of abrupt disruption that has occurred," says William Blake, senior director at Quinbrook Infrastructure Partners. "More than 130 executive orders in Trump's first 100 days – most notably, new directives on tariffs – is a lot for the markets to digest.

"That increased level of uncertainty undoubtedly results in investors being more cautious. We are observing a heightened focus and demand for quality, de-risked assets. There is a new paradigm in energy infrastructure development requiring deeper industrial know-how. Value-add strategies are becoming more customer-centric with greater importance on supplier relationships."

The increased fragility of supply chains is certainly one of the top challenges facing renewables investors today. Reshoring could provide light at the end of the tunnel, however.

"Decisions made by Trump during his first presidency have shown that reshoring can be effective," Joost Bergsma, global head of renewables at Nuveen Infrastructure, explains. "Europe is a bit behind when it comes to reshoring, and it is a process that takes at least 18 months to two years. But it can be done, albeit at a cost."

Meanwhile, in addition to tariffs, investors in US renewables also face the possibility of the unwinding of the tax credit system. The implications could be significant. "The entire market is predicated on the IRA tax incentives. ITC and PTC assumptions underpin PPA clearing prices," says Blake.

However, he also cites a recent Wood Mackenzie report that analyses different potential tax credit and tariff scenarios. "The upshot of that analysis is that solar and battery storage remain competitive even in scenarios where tax credits are rolled back and Liberation Day tariffs remain in place."

Bergsma, meanwhile, believes that powerful demand drivers will outstrip any negative impact from the removal

Benjamin KennedyManaging director, renewables, Ardian

Benjamin Kennedy joined Ardian in 2022 to head the firm's clean energy evergreen fund. He was previously head of onshore M&A and business development at Ørsted. He has also worked at DGCapital, Bank of America and Robert W Baird.



Umberto Tamburrino

Managing partner, CEO and CIO, Europe, Sosteneo Infrastructure Partners, part of Generali Investments

Umberto Tamburrino has almost three decades of experience in renewables. He was previously CEO of Elliott Green Power and Antin Infrastructure Partners, as well as co-head of renewable energy principal investments at Deutsche Bank.



William Blake Senior director, Quinbrook Infrastructure Partners

William Blake has over a decade of experience in global clean energy and infrastructure investment. He joined Quinbrook from Denham Capital in 2019, having previously worked at Bank of America Merrill Lynch.



Kai Rintala has been managing director of Taaleri Energia since 2016 and has more than 20 years' experience in the infrastructure industry. He previously worked for KPMG, advising clients on infrastructure strategy and transactions.





Rahul KumarManaging director, Cube Infrastructure Managers

Since joining Cube in 2009, Rahul Kumar has been involved in investments across the solar, hydropower, EV charging, district heating, public transportation, telecoms and waste management sectors. He began his career at ABN Amro's fund of funds division.



Joost Bergsma Global head of clean energy, Nuveen Infrastructure

Joost Bergsma serves as global head of clean energy at Nuveen Infrastructure, formerly Glennmont Partners, where he was CEO and managing partner. Bergsma has 25 years' experience in utility banking and fund management.

of incentives. "Regardless of what happens to tax credits, there is a race on between the US, China and Europe to see who can roll out data centres fastest. Those data centres need power. Gas can't be rolled out that quickly. It has to be solar, even in the US."

LP attitudes

Shifting investor attitudes to the energy transition are also impacting the space. Nuveen's recent *EQuilibrium Global Institutional Investor Survey* found investors taking a more pragmatic approach, stating that near-term energy needs cannot be met without incorporating both renewable and traditional energy sources

Bergsma is unperturbed. "When it comes to clean energy investments, investors have always put financial performance first. The environmental aspect is important, but it is a secondary consideration. Given current volatility, renewables are considered to be a haven, offering long-term, inflation-linked returns based on real assets producing hard cashflows. It is fair to say that we are seeing less demand for the ESG aspect of renewables than we did a few years ago, particularly in some geographies, but first and foremost investors want returns and that is something we continue to deliver."

Benjamin Kennedy, Ardian managing director for renewables, agrees. "Appetite for ESG-related themes has softened over the past year or two. That is being driven, in part, by a more hostile media narrative in a changing political environment. However, this shift in sentiment is also creating opportunities in terms of more favourable pricing. I believe we will see more attractive risk-adjusted returns in this asset class from the current vintage than we have seen in many years."

Logically, investors may be reevaluating their risk appetite in the current market environment. Umberto Tamburrino, managing partner, CEO "There was a lot of speculation about what a second Trump presidency would mean... but few anticipated the sheer level of abrupt disruption that has occurred"

WILLIAM BLAKE
Quinbrook Infrastructure Partners

Natural gas

Is this fossil fuel an energy transition fuel?

Economic pressures, as well as pressures on the grid, are loosening the parameters by which energy transition fuels are defined. Natural gas, in particular, is increasingly coming into the fold. "Natural gas, alongside renewables, will continue to play an important role in US power markets and the energy transition generally. Similarly, natural gas and renewables both feature in the energy security narrative," says Quinbrook's William Blake.

"Given recent events," adds Cube's Rahul Kumar "there will probably be a push towards building more gas-powered systems until we can be sure the grid is capable of handling higher levels of renewable penetration.

"Merchant renewable power plants are a price receiver rather than a price setter, unless of course they set low prices when there is high production given minimal marginal costs, which hampers profitability. This is a concern given the asymmetry of price support that we have seen in the past, with windfall profit taxes when prices were high but barely any government support when prices are low or even negative. All of this means we are likely to see a slight watering down of requirements around renewables in the short term."

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BENJAMIN KENNEDY Ardian

"LPs are gravitating towards stable, contracted cashflows. Old style infrastructure is back in fashion"

UMBERTO TAMBURRINO Sosteneo Infrastructure Partners, part of Generali Investments

and CIO, Europe, at Sosteneo Infrastructure Partners, says there is growing fatigue among LPs for heavy merchant exposure. "LPs are gravitating towards stable, contracted cashflows. Old style infrastructure is back in fashion," he says.

"Currently, around 75 percent of our revenues are contracted, with the majority contracted over a 10-year horizon," adds Kennedy. "We do invest in merchant portfolios, but usually only when we see an opportunity to secure a contract post transaction."

Rahul Kumar, managing director at Cube Infrastructure Managers, meanwhile, says the feedback his firm is receiving from investors is that they prefer contracted revenues to merchant risk. "Even contracted revenues come with different levels of risk and potential returns depending on the length of the PPA. We therefore aim to access longterm subsidies through governmentled auctions wherever we can."

Risk appetites differ, however, and there are also investors clamouring for higher returns. Taaleri Energia aims to be 50 percent contracted and 50 percent merchant on average at a fund level, according to managing director Kai Rintala. "We have been fundraising for the past 18 months and we expect to close at around 50 percent up on our previous fund size, so I would say that there is appetite there for this riskreturn profile in renewables."

Taaleri is seeking to enhance its potential returns through its geographical mandate as well. "We are diversified across 14 different countries including the Baltics and Eastern Europe. In Eastern Europe, for example, there is still heavy penetration of coal. That translates to higher power prices and therefore better returns," Rintala explains. "In addition, it means there is the potential to have a far greater impact from an emissions perspective."

Battery strategies

Taaleri is also aiming to increase returns through an increased exposure to batteries, Rintala says. "Batteries are essentially a volatility play. As the proportion of renewable generation assets on the grid increases so does the volatility. Over the past year we have got our first battery up and running and a second under construction."

The need for batteries is undeniably growing, underscored by issues of solar saturation and cannibalisation around the world, as well as high-profile power outages. Strategies for leveraging this opportunity vary, however, with some firms favouring a hybrid solar-plusbattery approach, and others focusing on standalone storage.

"There are unique advantages for hybrid solar and battery storage solutions," says Blake. "The key advantage in pairing these technologies is the ability to reliably capture and extend daytime solar hours to deliver higher value megawatt-hours. Hybrid systems allow you to apply more functional constraints from a design and underwriting perspective compared to merchant standalone storage, offering better risk management and optimised returns through long-term off-take. Overall, hybrid systems allow you to maximise optionality and increase the

value of an interconnection position, real estate, and development efforts."

However, as Tamburrino explains, while new solar developments are likely to go hybrid, there is also a huge stock of existing generation assets that require backup, and that means standalone batteries.

"The challenge is to make this look like infrastructure, which means securing long-term agreements for trading at the same time as frequency regulation contracts," says Tamburrino. "This is the approach we took when we started out in this space in Australia, a country that needed batteries sooner than elsewhere because of the weakness of its grid. We learned some valuable lessons, and the plan now is to copy and paste that model in other geographies, because even those countries that have large, connected grid infrastructure require more back up as renewable penetration continues to grow."

Taaleri takes a different approach to batteries, however. "At an overall portfolio level, we are 50 percent hedged on megawatt-hours produced, but we believe there is significant value in staying merchant on batteries, so long as you work with sophisticated AI optimisers," Rintala says, adding that, given the increased risk, Taaleri invests in batteries on an equity-only basis. "We are not putting any leverage into the system."

Competition from utilities

Taaleri's approach, as with its approach to geographical diversification, reflects a desire to deliver superior returns to investors. But the question remains, at what point will infrastructure funds struggle to find renewable opportunities that can deliver the required

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JOOST BERGSMA
Nuveen Infrastructure

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RAHUL KUMAR
Cube Infrastructure Managers

premium over a utility-led project, particularly in developed markets?

Kennedy is unconcerned: "As someone who used to work in a utility, I am not sure that utilities necessarily have a unique competitive advantage around developing, constructing, executing and commercialising renewables projects. Infrastructure managers can create the same capability sets, while also bringing superior cost discipline and risk controls."

"We have significantly increased our exposure to development-stage projects," adds Rintala. "It is something we have always done, but now we are doing it inside the fund, for the benefit of our investors. Similarly, we took the conscious decision to go into the Baltics, Poland, Serbia, Croatia and Bulgaria early on, because there is less competition in these markets and more need for renewable energy."

For Tamburrino, meanwhile, the answer is to pursue a construction-ready greenfield strategy. "There will always be opportunities to achieve an attractive risk-adjusted return when you are taking a project through construction into operations," he says, while conceding that there is no doubt that there have been examples of funds overpaying for development in recent years. "There have been LPs reporting MOICs of less than one, and it has only just begun. Infrastructure is not about making spectacular returns, but it is about preserving capital."

Price predictions

The ability to preserve capital is predicated, in part, on realistic assumptions around future power prices. Kumar believes that, while there will be volatility, prices are unlikely to either crash nor soar for sustained periods over the long term. "Given electricity's nature as a commodity for various goods and services, real electricity prices will continue to show a close correlation to real GDP growth - somewhere within the 3-5 percent annual range over

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KAI RINTALA Taaleri Energia

the long-term historical norm - even though there might be strong fluctuations and volatility.

"What I would say, however, is that we may see a decoupling or an electricity reform, whereby one technology such as gas may no longer set the marginal price for all electricity producers regardless of technology or raw material use. Considering the role of private capital, there will nonetheless continue to be some form of base level pricing that guarantees a minimum reasonable return for all investors."

Blake adds: "Fundamental power price forecasting is a difficult trade. The long-term trends suggest lower average wholesale prices but with increased volatility. This presents opportunities for battery storage and demand response applications."

For Bergsma, what matters is to move away from the idea that clean energy carries no cost, in the same way that the internet is often deemed to be free. "A number of key players in offshore wind, for example, have been very vocal about the fact that the current situation is unsustainable. It is hard for offshore wind players to make money today because power prices have been too low.

"Governments need to recognise that this isn't a free commodity. While I don't want to make a direct link with what happened in Spain, what is clear is that Spain is a country that has been rather laissez faire about its low and even negative power prices. That might be attractive for consumers but is it really the best way to structure the market?"

Along with fundamental weaknesses in the grid, these are important considerations with immediate real-life implications. "There was not enough inertia on the Spanish grid. These things are going to happen more and more unless the system itself changes," says Tamburrino. "Italy is building up storage capabilities with an auction scheduled for September. UK onshore transmission is due to be privatised. These are all steps in the right direction. But there is more to be done. You can't go blindly into generation without experiencing the kinds of disasters we are starting to see."