

SPECIAL REPORT

# Power Couple: The strengthening bond between data centres and battery storage

*Insights into data centre opportunities for the battery storage sector in the US and Europe from a panel of experts convened by Tamarindo, in partnership with Troutman Pepper Locke*



## Acknowledgements

This report summarises the conclusions of a panel examining data centre opportunities for the battery storage sector in the US and Europe. The members of the panel were:

- **Ingmar Grebien**, managing director, Goldman Sachs
- **Alex O’Cinneide**, CEO, Gore Street Capital
- **Nikita Patil**, strategy manager UK & Ireland, Fluence
- **Sabelo Siyakatshana**, director, SMBC Group
- **Sneha Shah**, director – project & structured finance (energy infrastructure), Siemens Bank
- **Erik Strømsø**, CEO and co-founder, BW ESS
- **Paweł Kordala**, head of investment office and deputy CIO, R.Power Renewables
- **Vaughn Morrison**, partner, Troutman Pepper Locke
- **John Leonti**, partner, Troutman Pepper

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## Summary

Data centres' soaring energy demands provide, in theory, a massive opportunity for the energy storage industry. According to the International Energy Agency, data centre electricity consumption is set to more than double to around 945 terawatt-hours by 2030. Crucially, data centres are operated in accordance with stringent requirements for both continuous uptime and power quality – consequently, as battery manufacturer Saft has highlighted, any disruption, even for a fraction of a second, can lead to “significant data loss, operational failures, and severe financial repercussions”. This requirement for an uninterrupted service has resulted in the creation of robust power infrastructure, traditionally relying on uninterruptible power supplies (UPS) backed by diesel generators. However, with data consumption rocketing, the energy footprint of data centres is also expanding exponentially. In the US alone, data centre consumption, which currently accounts for 3-5% of the electricity produced, according to Saft, is expected to climb to 8-12% by 2030.

But how realistic is it to expect data centres to use battery storage to meet their energy needs? Tamarindo, in partnership with Troutman Pepper Locke, convened a panel of energy storage industry experts and digital infrastructure specialists to discuss the following topic 'Power Couple: The strengthening bond between data centres and battery storage and the potential investment pitfalls' This report summarises the key conclusions of the panel discussion. In particular, the report will:

- Explore to what extent battery storage can help to address the needs of data centres in Europe
- Assess the barriers that exist to data centres making more use of battery storage
- Identify the lessons Europe could potentially learn from the US market and vice versa
- Discuss whether more needs to be done to facilitate closer cooperation between the data centre industry and the battery storage sector
- Examine the potential pitfalls for battery storage investors seeking to meet the energy demands of the global data centre industry
- Predict how the relationship between data centres and the battery storage sector will evolve in the coming 12-24 months



## Can battery storage help to address the needs of European data centres?

It is still not clear exactly to what extent battery storage can help address the needs of data centres, though a number of potential benefits have been identified, said Troutman Pepper Locke partner Vaughn Morrison. “In the US, I’ve heard a handful of compelling narratives. Among them is that you can utilise behind-the-meter battery storage to mitigate curtailment under non-firm retail power supply,” he said. “Perhaps you’re able to reduce the interconnection queue by accepting a non-firm position, knowing that 99.9% of the time, any curtailment is going to occur over a four-hour period, from five to nine in most US markets, so you can arrive at a firm result from the perspective of perhaps a hyperscaler customer while accepting, and benefiting, from a non-firm queue position.” Morrison added that another compelling case for data centres using battery storage was that it allowed them to “better manage the power quality” required by both the large language model processing patterns, and the forthcoming NVIDIA chips, which have different vacillation in their consumption. Morrison added that, while there are also peak shaving and energy arbitrage opportunities for data centres using battery energy storage systems [BESS], what has still not been determined is how to use BESS to decarbonise the entirety of a data centre’s load by pairing it with renewable generation.

From the perspective of Europe, it would be beneficial to get clarity on how BESS could help data centres reduce carbon emissions and reduce the need for thermal power, said John Leonti, partner at Troutman Pepper Locke. He highlighted that this was a clear distinction between the US and European markets in that, in the US, there was not an overarching renewables standard, and there were actually moves to put more thermal power on the grid, whereas in Europe the policy position was different in that it was looking to move away from traditional power sources. Sneha Shah, director – project & structured finance (energy & infrastructure) at Siemens Bank, agreed that, in Europe, there is a drive to bring through sustainable power to fuel data centres and highlighted the European Commission’s work on the Data Centre Energy Efficiency Package, which will introduce a rating scheme for data centres in Europe and minimum energy efficiency performance standards for data centres. She contrasted the outlook in Europe with that in the US where, she said, there was not the same regulatory drive to ensure data centres use sustainable power. “I think it [sustainable power for data centres] is going to become more in focus in the UK and Europe and I think it’s just the question of how that business model will look, and perhaps the lending strategies that lenders can consider,” Shah said.

# Concerns in Europe about data centres' power needs

In Europe there is concern about the size of data centres power demands, as well as the scarcity of grid connections, said Erik Strømsø, CEO and co-founder of BW ESS. In addition, there was also concern about what types of other industries data centres may “squeeze out”, he added. However, Strømsø said that the drive for clean emissions had “lost some focus over the past couple of years and I’m not sure it carries as much weight in Europe versus the US as traditionally has been the perception”. He also said that the US narrative at present was that Europe was causing high energy prices by focussing on solar and wind, but Strømsø argued that the actual focus in Europe was rather cost and resilience: “We don’t have sufficient gas in Europe, we’re not rich in natural resources like the US so the way to get power prices down if you ask those who’ve done the maths is more solar, more wind and more batteries.” Strømsø said this was the big driver in Europe: “It’s more about how will it affect prices, how will it affect availability of power for other sectors and less about can we make it clean? Once we have abundance of power, and it’s cheap, and it’s available, people will go back to saying is it clean? Ultimately, when it comes to energy, people will always prioritise cost and availability over carbon emissions.”

Strømsø said the BESS use case for data centres was “glaringly obvious”, but it was not clear who would drive the necessary change. “Grid operators in general are not incentivised to come up with innovative new solutions, and if you look at the data centre developers, there’s no big incentive to come up with a BESS solution, unless it is a prerequisite to get connected. For instance, if a TSO offers to bring forward a 2037 connection to 2027, but only if you add BESS capacity to avoid peak load periods, that would be a very strong signal and people would act on it.”

Paweł Kordala, head of investment office and deputy CIO at R.Power Renewables, said that, in Southern Europe, particularly in Spain, Portugal and some parts of Italy, there was a massive oversupply of solar, which could ultimately be used to power data centres. “There are lots of projects in Spain and people are slowing down investments, but if battery costs keep coming down and people keep extending the duration, you can imagine potentially big AI data centres being built with solar plus BESS,” he said. However, Kordala added it was more difficult to envisage a similar scenario in Northern Europe. “It’s harder to imagine it being done in Northern Europe, for example connecting BESS with wind, because wind is less predictable.” Kordala said there would be a time in Europe when AI will “grow massively”, though he added that, in order for that to be successful, long-duration batteries would be needed.

**“Ultimately, when it comes to energy, people will always prioritise cost and availability over carbon emissions”**

# How batteries can address the needs of data centres

The issue of how BESS can help address the needs of data centres breaks down broadly into three themes, said Ingmar Grebien, managing director at Goldman Sachs. He explained: "I think one of the themes is around grid connection – a lot of data centre developers are struggling for grid connection dates and we've seen different attempts to resolve that, such as talking to the grid operator and saying if I put on-site generation does that help me? Or perhaps acquiring an old CCGT site because it's got a grid connection and I'll put my data centre next to it. Regarding the question of how do I get my grid operator comfortable with having such a high load in that particular place, energy storage can play a big role in resolving that." Grebien said the second big theme was managing demand-supply portfolios: "Many technology companies that have historically signed renewable PPAs therefore have portfolios of power supply contracts with certain renewable shape. Data centres however have a baseload consumption profile. Somebody needs to manage the different profiles and the associated price risk. Batteries can play a role there and some players in the market are starting to actively consider energy storage for that purpose." The third theme, according to Grebien, is overall market impact. It has been estimated that Europe has a data centre pipeline of 170GW, equivalent to a third of the continent's entire current electricity consumption. Commenting on the forecast, Grebien said: "I am not sure everyone has properly paid attention to that potential trend reversal on the demand side yet. Not all of the datacenter pipeline will get built, but even if it's 25 to 50 per cent – as estimated by GS Research – that's a 10 to 15 per cent uptick in load over the next five to ten years. In that context, if you think at the overall market level and consider where in the power stack we are during a tight winter day, then I think this additional demand could have a noticeable impact on revenues available for energy storage more generally."

Discussions about data centres coupling with storage is essentially another way of saying the grid is inefficient, said Alex O'Conneide, CEO of Gore Street Capital. "The grid cannot deliver to the data centre firm power at the right price it needs," he explains. "Therefore, the data centre owner says I need to get rid of that risk from my business model." O'Conneide, says the question then becomes: Is the grid going to remain completely inefficient or is that going to be solved by some other means? "If it's going to be solved, then the data centre business should be in the data centre business, it shouldn't be in the storage business. Ireland, for example, was the data centre epicentre of Europe, but now you can't build a data centre in Ireland because too much of the load is going to data centres, so I wonder if I was a data centre investor looking into that market, whether I would want to make an investment into storage against the fact other things are happening with the grid." O'Conneide continued: "An example of that is in the UK – the UK government is going to put out 7GW or 35GWh of long-duration storage over the next few years, that's a lot of firm availability that will be there for the load."

O'Conneide highlighted that energy storage investors are currently "exploring options to increase contracted revenue within the revenue stack". He added: "Being able to do deals with people who have big needs is a route for energy storage investors to have a less volatile revenue profile, but for the data centre, they're just buying a commodity."



## Data centres' energy demand fluctuations mean adding BESS makes sense

Given the large amounts of data centre capacity in grid connection queues, there are doubts about whether all of the connections would “come online on the timelines expected”, Nikita Patil, strategy manager UK & Ireland at Fluence, said. She added that such concerns would need to be addressed from not only a regulatory point of view, but also from a policy, market and technology perspective. Patil added that, while grid congestion was leading to BESS being considered in the context of the data centre industry, concern about energy demand fluctuations caused by data centres computing large AI models meant that coupling BESS with data centres made sense.

From a data centre finance perspective, energy storage can add value in the context of flexibility and resilience, Sabelo Siyakatshana, director at SMBC Group, said. He added that, with regard to data centres, there can be “issues in timing where there’s upsizing requirements and the grid is required to provide more capacity”. Siyakatshana continued: “Where there is some [data centre] development risk, and you need further grid capacity, I think battery storage probably strengthens that story and protects the credit quality of the underlying project.” He also said that, from a lender’s perspective, constrained markets were a “good story for credit”. He added: “You have essential infrastructure, you have a tenant with some contracts, so we take a view on the contracts, and how sticky those contracts are, and sometimes we bank cashflows beyond those contracts. But if you’re in a constrained market, you can sell that as a point of credit – that’s a strong credit because your tenant has less options and more incentive to remain.” Siyakatshana cited examples of hyperscalers in core markets Frankfurt, London, Amsterdam and Dublin that have some “termination rights where power’s delayed”. He continued: “They don’t always use those termination rights due to supply constraints. It’s usually quite clear that they will waive the termination right in markets such as London, because it’s a constrained market, they’ve got nowhere to go.” Siyakatshana said, overall, BESS had a role to play in the data centre industry because sustainability was becoming an increasing priority as data centres become more widely used in daily life. “There’s focus on water, there’s focus on the energy requirements, so to the extent that it [BESS] helps that sustainability story, I think that’s helpful,” he explained.

## What are the barriers to data centres making more use of BESS?

In order for a compelling business case to be made for developing battery storage facilities in conjunction with a data centre, there needs to be clear rules that state the data centre would have its commissioning timeline accelerated in return for incorporating storage, Morrison said. He added that such rules “exist in certain sub-markets within the US, but not all”. Morrison continued: “Some of the independent service operators have tariff rules that allow for applying for non-firm service that takes into account the proposed behind-the-meter resources, and, in those markets, it can be an effective strategy.”

Though long-duration storage is being more widely deployed – and could potentially be of value to data centres especially in the context of possible blackouts – it was unlikely to be fully embraced by the data centre industry until there were firmer plans for longer duration storage across Europe, Shah said. She added that there remained grid bottlenecks and BESS permitting delays across many European markets that would limit the potential of battery storage in the data centre industry.

Grid operators are becoming more aware of the potential for offering conditional grid connection agreements to data centre operators, Strømsø said. He added this would create a business case for data centres to develop battery storage assets. “If it [developing a battery asset] brings your data centre forward by five years, that’s the difference between having a viable data centre and having nothing,” he said. Strømsø added that it is “a lost opportunity to give a data centre a fixed connection agreement, when you could just tell them across the board that we will not give data centres a connection that includes loads during peak load hours.” Such a rule would incentivise data centres to build batteries, he argued.

Siyakatshana said regulation would have a role to play in incentivising data centres to develop battery storage assets. “If you can do it without [BESS], it’s probably the preferred route – bringing in battery storage brings in a lot of complexities into the deal in terms of rights, and you think about how hyperscalers prefer to set up their sites, they’ve got multiple redundancies, the dispatch requirements as well are quite strict, expecting 99.9% uptime,” he explained. “So combining a hyperscale data centre project, whether it’s AI or cloud, with another element which requires further negotiation of rights, is quite complicated, and for a lender, it’s even more complicated because you’ve got to deal with the maintenance side of the battery business and understanding the creditworthiness of those counterparties and their incentives, so it really complicates the projects a lot more.”

**“If it brings your data centre forward by five years, that’s the difference between having a viable data centre and having nothing”**



## Battery supplier risk must be considered

A key challenge for the data centre industry when selecting battery storage suppliers will be to ascertain the expected longevity of the suppliers they choose, Kordala said. “They [data centres] have to take a view, and increasingly so in Europe, on Chinese battery producers and they have to be sure that these battery producers will have their service teams for 20 years after they sell the battery. These are different kinds of risks that they have to face.”

Patil acknowledged that, with regard to battery producers from “countries of concern”, cybersecurity was the biggest worry not only for data centres but also for a lot of countries, which are “pushing for BESS to meet NIS2 [the EU directive on cybersecurity] requirements to make sure there is no such risk”. Patil added that the UK’s NCSC [National Cyber Security Centre] is looking at BESS-related cybersecurity risks. She continued: “There are quite a few examples of BESS being used as transmission assets that perform critical grid-stabilisation activities – such as the grid boosters in Germany – and there are a lot of ways to make sure BESS is safeguarded and there are controls in place to ensure cybersecurity is considered.” Patil also said that a change in mindset on the part of data centre developers might be useful in that there are advantages in adding battery storage to sites such as “releasing hosting capacity at the [grid] connection”.



## What lessons could Europe potentially learn from the US market or vice versa?

The bankability of BESS projects does not necessarily depend on proximity to data centres, Siyakatshana argued. “In most of our transactions, it’s capacity market contracts and tolling arrangements, those structural elements, that have made our projects bankable, not necessarily the demand.” He added that, with regard to the co-location of BESS and data centres, the US was a little more advanced, with a lot of issues solved with “scale and capital”. He continued: “In Europe, from the banks perspective, bankability rests more on structure than on pure scale and abundance of capital”. Patil said that the US market was more advanced in the sense that there have been indications from the DOE that if data centres add a BESS asset they will have their grid connection brought forward. She added: “In the UK, we are a step behind as we don’t have clarity on how data centre demand will be connected and how the grid will respond.”

O’Cinneide said Gore Street Capital was having conversations with data centres in California to explore potential revenue opportunities for BESS, but added that the fund was not having similar conversations across Europe. He added that, with “policy volatility” common in the US, Europe had to consider how to give “policy certainty around some of these very long-dated investment decisions we’re making”. Meanwhile, Grebien said, in the US, data centres had given a lot more consideration to



how to manage their power supplies and consequently had evolved substantially in terms of “signing direct power purchase contracts and managing associated risks” – he cited large technology players as examples of companies who have a very sophisticated approach to such matters. Grebien added: “Here in Europe, often the approach from a corporation is still to procure electricity from the utility under a standard or green tariff, it’s often a very different mindset.” Grebien said that, consequently, European corporations may still be able to learn from their US counterparts, which are more advanced in this area – he added this was particularly important for hyperscalers because power supply is such a big topic.

## Meeting the energy needs of data centres could be considered at an earlier stage

Kordala questioned whether recent drops in EU carbon prices could be a sign that there is support for AI and data centre development in Europe, but added that this was controversial because decreases in prices could undermine a lot of investment in the European “PV and battery space”. Meanwhile, Shah said that one lesson that could be learnt from the US market would be looking at plans for meeting the potential energy needs of data centres at an earlier stage in the process. Leonti said that one of the more surprising developments in recent times in the US was the number of IPPs that have changed their business models to become data centre developers that “also have power plants”.

The dramatic scale of data centre development in the US is transformational for the nation’s economy, Morrison said. However, he added that policy volatility in the US had been challenging for the battery storage industry. Morrison said that many battery storage developers view the hyperscaler industry as offering significant opportunities because such companies are going into power markets and “taking greater control of that [power] aspect of their data centre development”. Morrison continued: “We’ve had projects where the data centre developer didn’t have the money to put down deposits for substation equipment and the hypercaler, before they even had the lease signed, came in and gave them \$100 million just to keep the project going.” Morrison also said that, in the US, hyperscalers have taken a “very affirmative interest” in state-level policy relating to large loads: “They’ve got directly involved in the process of drafting large load tariffs, both putting forth competitive proposals with the utility and also collaborating with the incumbent utility on negotiated tariffs.”

**“In the UK, we are a step behind as we don’t have clarity on how data centre demand will be connected and how the grid will respond”**

# Facilitating closer cooperation between the data centre industry and the battery storage sector

With regard to facilitating closer cooperation between the data centre industry and the battery storage sector, Siyakatshana said more “integrated planning and clearer standards would be helpful”. He added: “Energy storage is often treated as an add-on, and it’s not fully integrated into the electrical architecture, whereas if it were, and it wasn’t viewed as optional, I think there’d be a mindset shift.” However, Siyakatshana said he did not think such a mindset shift will happen without some motivation, because from a lender or investor’s perspective, data centres tend to have “very hard requirements, and these all stem down from the hyperscaler or the ultimate customer, and investors or lenders build in back-to-back agreements to ensure that those hard requirements are met and so involving some of the thinking from an investor’s perspective into the co-location projects and how those shape out would be helpful quite early.”

Siyakatshana added that consideration also needed to be given to separating the “resilience layer from the optimisation layer” because the two layers have an inherent conflict, because the data centre “requires resilience and won’t give away control of dispatch, while on the optimisation side, you are trying to optimise for profit, and you have to figure out what helps the customers or the developers sign up to those contracts”. Siyakatshana said one option was to have availability or resilience “as a service but I’m not sure that would pay back the project”. Patil said that, from a regulatory standpoint, more ESG requirements for data centres to source their power from renewable sources and batteries – and incentives for them to do that – would help to foster closer collaboration between data centres and the BESS industry. She added: “These could be more time-matched – matched to half an hour, one hour, frameworks that allow them to say they are using electricity that is certifiably green.”

O’Cinneide said that BESS has become an increasingly sophisticated product in terms of the range of services it offers, many of which would be irrelevant in terms of the needs of a data centre. “The data centre is basically shifting load with the battery storage, they’re using a plain vanilla function, so I don’t think there’s much battery storage owners need to do apart from selling themselves”. The need for cooperation and coordination is most acute in the context of power grids, Grebien said. “The reason we’re talking about co-location of renewables and energy storage assets is partially because it solves the problem of grid connection wait times and addresses local congestion issues already behind the meter. In theory some of this could be resolved at the grid level with a robust grid allowing for geographic separation of different asset classes and reducing the need to scramble for on-site location.” Kordala advocated more lobbying for flexible grid connection agreements, which can be beneficial for grid operators and developers.

Strømsø said it was incumbent on the battery energy storage industry to educate hyperscalers about BESS technology. He added that it can be surprising how little attention hyperscalers pay to the issue of battery storage and they are not particularly innovative in this respect. “I think we [the BESS industry] need to work on explaining more about what it can do, how you can do more than just provide the [load] shifting.” Regarding collaboration between the data centre and BESS industries, Shah said there was the potential for batteries to become part of the data centre business case and therefore BESS could be funded via corporate financing-style facilities rather than non-recourse project finance.

## What are the pitfalls for battery storage investors seeking to meet the needs of data centres?

Morrison reiterated that it is not yet clear how BESS will provide value to the data centre industry. “Step one would be figuring out what the value proposition is,” he added. Meanwhile, Leonti said it was important to first understand the relevant policy implications and “what the utility and the state, or the country, are going to ultimately require before getting into the weeds with hyperscalers”. He continued: “Sometimes, we’re seeing hyperscalers run into countries or states without really even understanding what the regulations are and that’s a cautionary tale – we are seeing hyperscalers make expensive mistakes.” O’Cinneide’s view was that, when working with the data centre industry, battery investors and developers have to consider whether they are “putting up a single point of failure to their revenue model”. He added: “You’re taking a credit position against the data centre – they’re highly leveraged and quite speculative and probably have a depreciation schedule of, what, five to seven years, something like that? We [the BESS] have 20 years? Are you aligned in terms of those two patterns? You really need to think about that.” Battery storage investors also need to consider the potential impact of policy changes on BESS revenue stacks, Patil said. “Regulations change very quickly – if that changes for your battery asset, are you then losing the revenues that you would be making by trading?”

Siyakatshana noted that much of today’s AI driven demand is highly volatile, making it essential to scrutinise the long term durability of such demand. “Cloud data centres are viewed as essential infrastructure, they support hospitals, they support mobile phones, everything in our daily lives and they can’t afford to fail,” he said. “AI data centres probably can afford to fail, and they’ve got lower credit counterparties – there’s a lot of neoclouds, for example, which are start-up in nature, they’re buying a lot of the demand in the market, and they’re probably driving a lot of demand in the market for energy, so I think that’s one thing to watch out for.”



**“Regulations change very quickly – if that changes for your battery asset, are you then losing the revenues that you would be making by trading?”**



## How will the relationship between data centres and the battery storage sector evolve?

The next generation of chips will have a higher load volatility than the previous generation and battery storage could be the solution to this issue, Morrison observed. He added that, in the US, a series of policy changes at state and federal level were anticipated. “There’s been a directive to the Federal Energy Regulatory Commission to implement a large load interconnection process that will theoretically be expedited,” Morrison said. “There will be an opportunity there for the industry to weigh in on what that looks like – if it does a good job doing so, then there could be additional opportunities installed in that process, particularly around supplementing your speed to interconnect battery storage.” Meanwhile, Leonti said a key question was how the market was going to evolve over the next 12 to 24 months. He commented: “Is it really going to be this market where if you’re bringing data centres to town, you have to bring your own power? If that is the case, then I think policy will drive a lot of that. If it really is just bring your own power, then I think batteries have a compelling reason to be part of that solution. If it’s going to be the grid that solves this, then I think that’s going to be harder to figure out.” Shah said that Europe had an advantage in that it was able to observe the more advanced US data centre market and learn lessons – she added that the deployment of battery storage in tandem with data centres could happen more quickly in Europe, partly because if it did not happen, it would be contravening the ‘energy trilemma’, a framework developed by the World Energy Council to balance energy security, accessibility and environmental sustainability.

Over the next 12 to 24 months, batteries are going to become an increasingly important part of the electricity system, Strømsø said. “That means that, inevitably, they will be an increasingly important part of how data centers operate, because they are integral to the electricity system.” Strømsø added that batteries will increasingly be factored into the thinking of data centres that want to optimise their use of energy.



## Conclusion

While BESS is increasingly seen as a potential enabler of data centre growth, the exact value proposition of batteries in this context is still unclear. In the US, consideration is being given to using BESS as a tool for managing grid constraints, reducing interconnection delays, and stabilising power. This is especially important given the volatile energy demands of AI workloads and next-generation chips. Batteries can also have a role to play in peak shaving and arbitrage, though their ability to fully decarbonise data centres when paired with renewables is still in doubt.

There is a clear divergence between the US and European markets. Europe is more focused on sustainability, energy efficiency standards, and reducing reliance on thermal power, and these goals are backed by policy initiatives and regulatory frameworks aimed at ensuring data centres use sustainable power. However, there are major concerns about a shortage of grid capacity, given the significant power needs of data centres, with the result that there is speculation that other industries could be crowded out. In contrast, there is significant policy volatility in the US, though that has been counterbalanced to some extent by more advanced commercial strategies in the form of hyperscalers taking active roles in power procurement and even seeking to influence regulatory frameworks.

Grid constraints are clearly a driver of BESS adoption. Batteries can help secure faster or conditional grid connections, manage supply-demand mismatches, and improve resilience. However, widespread deployment by data centres will depend on stronger incentives, which could include accelerated connection timelines in exchange for integrating storage. Without such signals, developers and grid operators will lack motivation to create innovative solutions.

Financial and operational complexity is another barrier to BESS deployment. Integrating BESS into data centre projects introduces additional risk related to maintenance, contracts, cybersecurity, and supplier reliability. From the perspective of lenders, this complicates project bankability, though it is important to note that constrained power markets can enhance credit attractiveness.

Ultimately, future data centre expansion, which potentially adds significant load to electricity systems, will lead to the industry taking more opportunities to explore the benefits of battery storage. However, while BESS offers clear benefits – such as flexibility and resilience – its adoption will depend on clearer policy frameworks, improved grid planning, and better alignment between developers, investors, and regulators.

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