

# POWER

## The POWER Interview: Energy Storage Supports Europe's Decarbonization

The European Commission, the executive arm of the European Union (EU), has said countries across the continent should be encouraged to deploy energy storage. The group has said storage will support the integration of renewable energy resources to the grid, and increase power system flexibility.

By Darrell Proctor

The use of energy storage also is key to Europe's decarbonization strategy, as countries move away from fossil fuels. The market for energy storage systems in Europe is forecast to grow by \$30 billion from this year to 2031, according to Statista. The group said the market was valued at about \$36 billion in 2023.

Keith Reader, managing director of Project Finance in Europe for Wilmington Trust, a leading independent provider of trust and agency services, recently provided POWER with his insight about the energy storage market in Europe. Reader was named to lead the Wilmington Trust group in March of this year. He is responsible for building and executing the company's growth strategy for the product in Europe, with a focus on energy and infrastructure. The company has said its Project Finance business is an integral part of the firm's Global Capital Markets division.

**POWER: What are the expectations for growth in energy storage across Europe?**

**Reader:** The U.S. and Australia have led the way on battery storage transactions in 2021 and 2022, but activity in Europe has picked up in the last 18-24



Keith Reader

months. With the expectation to double renewables capacity in Europe by 2030 comes demand for battery storage, for the reasons I'll talk about here.

To support decarbonization, huge numbers of battery projects in Europe are already in progress with many more in the planning stages.

**POWER: What factors will support energy storage installations in Europe?**

**Reader:** Europe continues decarbonization by phasing out thermal generation and replacing this with renewables. Wind and solar have volatility in production due to the variable nature of the assets—periods with a

lot of solar and wind generation give rise to low prices, while at other times a shortage in production can lead to higher prices. Storage helps mitigate against these variations. Renewables cannot necessarily be increased in times of peak demand times, so battery storage can address these issues to meet peak demand.

Since the Russia and Ukraine conflict European governments have accelerated decarbonization, placing enhanced emphasis on renewables to get away from reliance on Russian gas imports, and thus placing further demand on battery storage solutions.

**POWER: Are there specific policies that will benefit (or hinder) adoption of energy storage in Europe?**

**Reader:** Two or three years ago deals were fully structured on an availability basis, with repayments based on fixed revenues. Today, lenders in Europe are being asked to accept an increased degree of merchant risk—risk from trading in the intraday market—because developers are looking for more flexibility. To adapt, a market trend of increased use of portfolios to allow developers flexibility—portfolios combine assets with primarily merchant risk, and those with fixed and floors revenues give a more bankable product.

Grid connections present constraining factors—the ability to co-locate a battery with solar or wind assets assists by utilizing a single connection and can lower capex costs. Traditional thermal generation tends to be located closer to demand centers, whereas renewables can be physically located out at sea or in remote areas. Grid connections from such areas can be limited in capacity from such locations—batteries can reduce such constraints on the grid.

Further, the recent King's Speech in the UK set out the priorities of the newly elected government, during which it was announced the new administration would create GB Energy to "own, manage and operate clean power projects across the UK." Further details advise GB Energy will be backed by £8.3 billion (\$10.8 billion) of

public money, with significant private sector investment required to fund a decarbonized power system. Once up and running I am optimistic the power finance industry in Europe may benefit from this legislation in a similar way to how its U.S. counterpart has with the Inflation Reduction Act.

***POWER: Pumped hydro storage has been prevalent in Europe; will we see new projects of that type?***

**Reader:** From a Wilmington Trust perspective, we haven't seen many pumped storage systems come across our desk. We understand that Italy, Germany and Spain are leaders in this space, which is a technology requiring the right setting—hilly terrain or mountains and valleys—to work effectively.

Naturally, such significant schemes have environmental impacts and thus hydro storage can be a challenging sector, but in the right locations with other parameters being satisfactory, this can be an important technology to support renewable energy by providing energy storage, grid stability and flexibility.

***POWER: What countries are likely to lead the market for energy storage in Europe?***

**Reader:** Principally the UK and Ireland, but demand is now broadening across Western Europe—stronger demand in Italy and Germany followed by the Netherlands, which requires grid stability because of the penetration of renewables. Spain is also seeing rising demand.

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**Keith Reader**

Mobile: +44 (0) 7769 276572

Email: [kreader@wilmingtontrust.com](mailto:kreader@wilmingtontrust.com)