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# Renewables **asset management**

trends and  
challenges in  
Europe





## Introduction

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It is now long since wind and solar photovoltaic (PV) power could be considered 'niche' or 'emerging' classes of energy generation. Globally, solar capacity is expected to surpass a terawatt this year, growing at 25% a year, according to the analyst firm Wood Mackenzie.<sup>i</sup> In Europe, meanwhile, events in Ukraine have accelerated the pace of renewables adoption. The European Commission's REPowerEU Plan envisages "A massive speed-up and scale-up in renewable energy in power generation, industry, buildings and transport."<sup>ii</sup>

The buildout includes expanding European wind capacity from 190 gigawatts today to 510 GW by 2030.<sup>iii</sup> This is good news for renewable asset developers and owners. But the vast and growing scale of renewable portfolios is forcing asset managers to adapt to a new way of doing business, characterised by the need to provide reliable low-carbon energy supplies from mostly intermittent sources.

This paper, published in the run up to Reuters Events' Utility Scale Solar and Wind Europe 2022 event in Munich on November 28 and 29, looks at the current state of play and key trends affecting European renewable portfolio asset managers.



# The asset management landscape

Recent years have seen European renewable asset owners achieving gigawatt-scale portfolios. Europe's largest solar investor, Octopus Renewables, has 3 GW of biomass, PV, wind and landfill gas under management.<sup>iv</sup> German solar leader Enerparc owns 2.5 GW of capacity.<sup>v</sup> These companies have accumulated significant capacities by focusing on owning and managing portfolios largely developed by themselves, a model also followed by players such as German solar and wind specialist Encavis.

Increasingly, however, the growth of renewables in Europe is attracting outside interests. Some of these,

such as Enel and EDF, are utilities with a strong interest in clean power generation. Others, such as Aquila Capital and Blackrock, are infrastructure funds that have amassed some of the largest renewable portfolios in the world. Hamburg-based Aquila, for example, surpassed 10 GW under management in March 2021.<sup>vi</sup>

Oil and gas companies are joining the fray too, with BP taking a 50% share in solar developer Lightsource in 2019 and TotalEnergies snapping up European assets to integrate into a global portfolio totalling 10 GW in September 2021.<sup>viii</sup>



## Challenges facing the industry

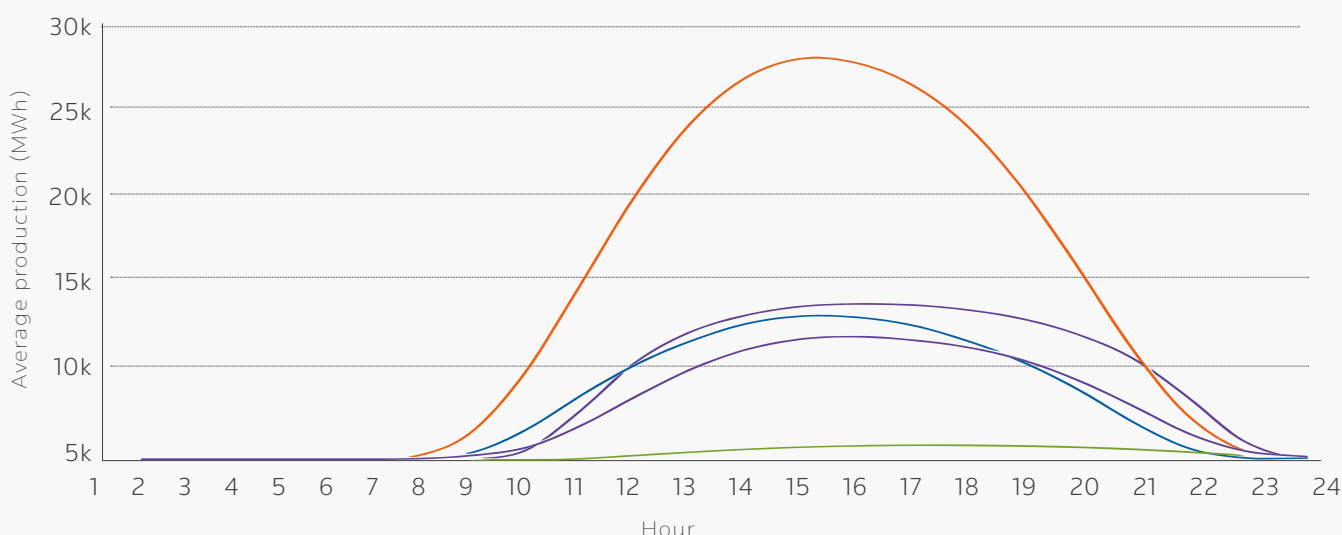
Renewable asset owners face two major challenges. The first is that the market support schemes that have sustained the industry in its early stages are falling away. Instruments such as feed-in tariffs (FiTs) and contracts for difference (CfDs) are giving way to power-purchase agreements (PPAs) and merchant sales. A second challenge is that renewable energy portfolio holders are no longer bit players in the energy market.

Instead, they are contributing significantly to the energy system and to a growing extent being called upon to provide firm power supplies, even though their main generation assets, wind and solar, are manifestly intermittent. This is forcing asset owners to “manage a diverse and ever-growing portfolio in a holistic way,” says Kostis Tzanakakis, business development director for USA and Europe at Inaccess, an infrastructure management technology developer.

Whereas before asset management may have been viewed as little more than an extension of operations and management, focused on cost reductions at the portfolio level, today moves from FiTs to PPAs and merchant trading “require a mind shift in terms of operations,” he says.

Bruce Huber, founder and chief executive of the independent corporate finance advisory firm Alexa Capital, says that in the absence of support schemes pure-play wind and solar asset owners face diminishing returns from price cannibalisation. In essence, because solar and wind production is restricted to times when it is sunny or windy, as more renewables become predominant there is decreasing value in adding further capacity to the system—unless it can somehow fill in gaps when generation is not available.

### Daily output profile of PV generation in May 2022, for selected European energy markets.



Source: AleaSoft Energy Forecasting.

“There is concern about how you steward these assets and achieve something other than deeply discounted prices,” Huber says. “Priority number one is how to create portfolios that are able to engage with the offtake market in a favourable way.”

## How companies are adapting

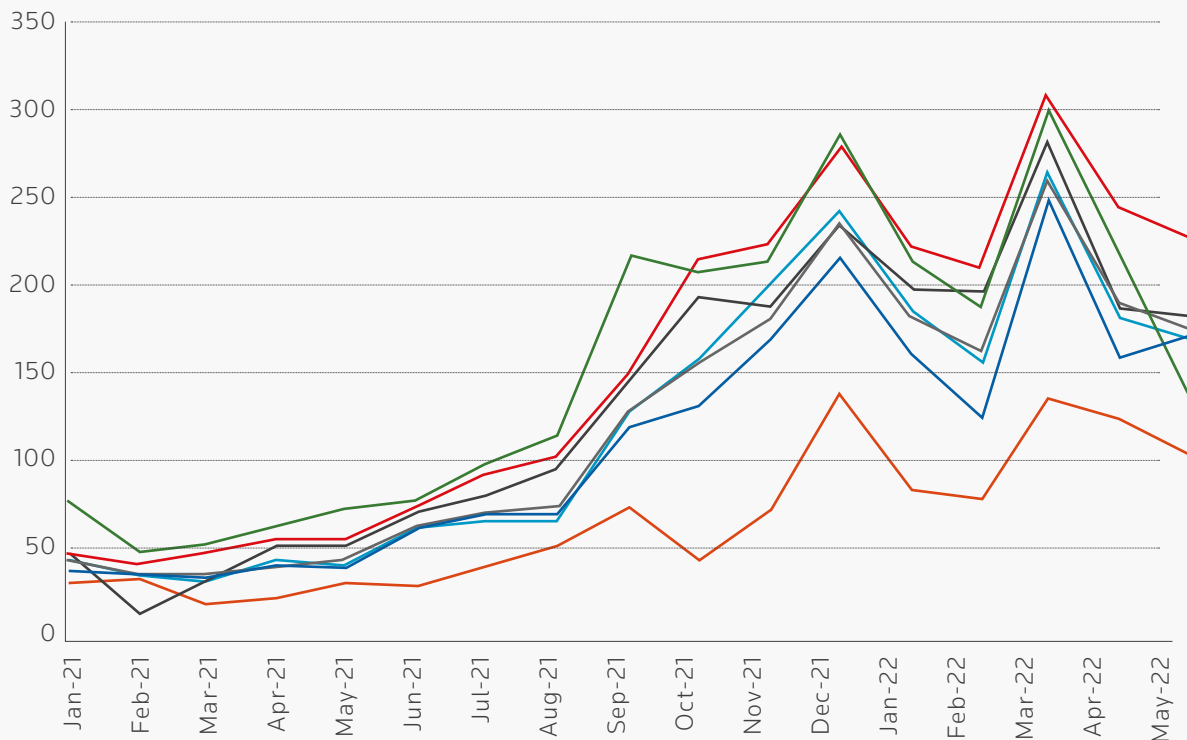
Partly this can be achieved through diversification. Octopus Renewables, for example, has a portfolio that contains 45% of biomass and landfill gas generation, allowing it to carry on delivering power when its solar and wind assets are idle.<sup>ix</sup> Another option is “adding storage into existing assets or new ones,” says Tzanakakis.

Increasingly as well, asset managers are “very keen to find ways to improve the management of their assets

and connect operations with the energy markets,” he says.

The idea here is that in addition to improving the stability of supplies through a diversified mix of generation and storage assets, asset managers should be building capabilities for taking advantage of market opportunities—seeking the highest value for every kilowatt hour.

### Average monthly pricing variation in selected European electricity markets, in euros per megawatt.



Source: AleaSoft Energy Forecasting.

This is forcing the asset management function to embrace new tools and skills. "Further professionalisation of asset management is key to ensuring the success of Europe's energy transition," says Benjamin Clarke, business analyst at the industry body SolarPower Europe. "With larger portfolios, asset managers will need to increasingly turn to innovative digital technologies. This requires consistent skilling and upskilling of asset managers, to ensure they effectively use the tools at their disposal."

Fortunately, he says, "There has been a marked increase in the digital services and tools at the disposal of asset managers."

Huber of Alexa Capital confirms that digital technology is playing a key role in the modernisation of European

renewable energy asset management. "Digitisation is really about trading and the software that goes with that," he says.

As well as trading, he says, digital tools are increasingly required for the management of complex portfolios that contain a range of technologies and are engineered to provide the flexibility demanded by mainstream energy markets. "If you're investing in storage or other flexibility assets, you're aggregating power flows and so you really are into a digital distributed asset management business," Huber remarks.

To fully understand customers' power needs, "You have to look at it on a half-hourly basis in a digital way," he adds. "You're beginning to then map your supply onto their demand."





## Capital and operational expenditure trends

The growing importance of asset management in large, diversified clean energy portfolios is changing attitudes towards capex and opex. Asset managers are seeing that low capital investment in plants can result in lower-quality assets that have high operational expenditure requirements. "Opex is increasing as assets age, instead of the opposite, as many business models had presumed," observes Tzanakakis at Inaccess.

"There is no golden ratio but, in general, this is not a zero-sum game and asset managers should not treat it as such," says Clarke at SolarPower Europe. "Intelligently deployed capital can ensure quality processes throughout the lifecycle of an asset. This may increase capex on paper. However, the consequence of cutting corners is exponentially increasing opex. A poorly constructed power plant may not show markedly reduced performance for the first five, 10 or even 15 years, but over a 30-year lifespan it becomes increasingly apparent."

More and more, says Huber of Alexa Capital, asset owners will need to factor flexibility considerations into their capex calculations. "It is hard if you're a singleton asset trying to engage with a PPA," he says. "What is the customer going to do with a singleton asset when the customer really needs power resiliency? The big strategic issue is, are you investing in co-located storage or flexibility within your portfolio?"

In practice this may mean asset management has a much greater say in capex decisions than it did when the function was merely concerned with issues such as repowering and efficiency gains. At the top end of the portfolio scale, some asset managers may also be at a point where it makes sense to establish an in-house trading desk.

In May 2022, for example, the German asset manager BayWa r.e. tendered 10 terawatt-hours of renewable energy capacity via 10-year PPAs across Germany and Spain.<sup>x</sup> Managing that level of output could justify significant investments in in-house trading capabilities.

## The impact of new market entrants

As highlighted above, the scale and maturity of Europe's wind and solar markets is increasingly attracting new entrants, including companies with much higher levels of financial sophistication than those traditionally associated with renewables. "Most oil and gas majors have by now started investing in our field, either developing their own assets or acquiring platforms that do so," says Tzanakakis.

Similarly, he says, large pension funds are entering the space, also by acquiring established project developers or so-called development platforms. Recent European platform transactions include SSE Renewable's acquisition of Siemens Gamesa Renewable Energy's European onshore development arm<sup>xi</sup> and Canada Pension Plan Investment Board's €800 million investment in developer Renewable Power Capital.<sup>xii</sup>

"As we think about new players, what is exciting is we're seeing a lot of trading houses, whether it's the

energy majors or the traditional oil and gas traders," says Huber.

Commodities traders such as Axpo Group, Mercuria and Vitol "have made a bundle off the volatility in energy commodity markets and now recognise that they have some capabilities in terms of the trading side and engaging in offtake," he says. "They've got some of the biggest, most capable gas and power trading desks on the planet."

The implication is that smaller portfolio holders or pure-play solar and wind asset holders could eventually be outgunned by energy trading giants offering a clean energy mix that is available around the clock and can be traded efficiently at scale. "Obviously there is an asset management activity which is making sure you're cleaning your panels and sending drones up to inspect your turbines," Huber says, but "real value is how much can you get paid for your electron."





## Outlook and conclusions

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European wind and solar asset management is arguably going through its greatest transformation ever. “The first 20 years developing renewables in Europe has been predominantly about harvesting feed-in tariffs, CfDs and all manner of offtakes,” says Huber. “Now the market is maturing, we’ve got assets coming off those subventions. Now it is about thinking about the customer.”

Nor is this the only challenge facing asset management. Along with hybrid plants, “the increased mainstreaming of innovative solar installations—agri-

PV, floating PV, etcetera—presents different types of stakeholders and business models,” says Clarke. “Asset managers will have to stay abreast of all these if they are to continue to deliver value for owners.”

With such a complex and evolving outlook, it is more important than ever to stay ahead of the latest developments in the industry. To that end, asset management will be a key focus at Utility Scale Solar and Wind Europe 2022 in Munich on November 28 and 29. To find out more, see [Utility Scale Solar & Wind Europe 2022 \(reutersevents.com\)](https://reutersevents.com)



## Resources

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- <sup>i</sup> Kelsey Goss, Wood Mackenzie, May 25, 2022: Bright outlook for global solar – but regional challenges will affect supply chain.
- <sup>ii</sup> European Commission communication, May 5, 2022: REPowerEU Plan. Available at [https://eur-lex.europa.eu/resource.html?uri=cellar:fc930f14-d7ae-11ec-a95f-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:fc930f14-d7ae-11ec-a95f-01aa75ed71a1.0001.02/DOC_1&format=PDF).
- <sup>iii</sup> Giles Dickson, WindEurope email, June 9, 2022: WindEurope's annual Technology Workshop is on 23-24 June in Brussels.
- <sup>iv</sup> Octopus Renewables website, 2022: Building the world's leading renewable energy business. Available at <https://octopusrenewables.com>.
- <sup>v</sup> Enerparc website, 2022: Our projects. Available at <https://www.enerparc.de/en/projects>.
- <sup>vi</sup> Aquila Capital press release, March 30, 2021: Aquila Capital's renewables portfolio reaches 10 gigawatts. Available at <https://www.aquila-capital.de/en/investments/details/aquila-capitals-renewables-portfolio-reaches-10-gigawatts>.
- <sup>vii</sup> BP press release, December 5, 2019: Lightsource BP to accelerate global solar growth with further investment from BP. Available at <https://www.bp.com/en/global/corporate/news-and-insights/press-releases/lightsource-bp-to-accelerate-global-solar-growth-with-further-investment-from-bp.html>.
- <sup>viii</sup> TotalEnergies press release, May 13, 2022: TotalEnergies and Ørsted partner to participate in Dutch offshore wind tenders. Available at <https://totalenergies.com/media/news/press-releases/totalenergies-and-orsted-partner-participate-dutch-offshore-wind-tenders>.
- <sup>ix</sup> Octopus Renewables.
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- <sup>xi</sup> SSE press release, April 19, 2022: SSE's renewables business acquires European onshore wind platform from Siemens Gamesa Renewable Energy. Available at <https://www.sse.com/news-and-views/2022/04/sse-s-renewables-business-acquires-european-onshore-wind-platform-from-siemens-gamesa-renewable-energy/>.
- <sup>xii</sup> IPE, June 6, 2022: CPP Investments commits €800m to European renewables platform RPC. Available at <https://realassets.ipe.com/news/cpp-investments-commits-800m-to-european-renewables-platform-rpc/10060262.article>.

