

THE FLEXIBLE ENERGY SOLUTION

Distributed energy resources (DERs) are in abundance. Their flexible capacity can help network operators around the globe meet many of the challenges that the grid faces today, when coordinated through a market platform. **Explore today's grid challenges and the solutions that flexibility can offer.**

More electricity demand than ever before



Electricity demand is growing, expected to increase by up to 7% per year to 2030 according to McKinsey. Data centres are a key part of this, with demand expected to grow up to 22% from 2023 to 2030.



Use demand-side assets for demand response



Flexible DERs can shift their loads to off-peak times through demand response (DR). This reduces their burden on the grid and become a useful tool for grid operators. This can lead to costs savings through grid upgrade deferrals.

Not enough grid infrastructure



Despite this growing demand, infrastructure investments are static, at approximately \$300 billion (USD) per year says the International Energy Agency. BNEF estimates that an annual investment of \$811 billion by 2030 is what's needed in reality to meet the demand.



Make smarter investment decisions



More DERs coordinated through a flexibility market platform means more visibility and data insights to help target decision making around where and when to invest in grid upgrades. This demonstrates further value DERs can bring.

Connection queues



The International Energy Agency shares that at least 3,000 GWs of renewable power projects are sat in queues waiting to connect across the globe. This is five times the amount of solar and wind capacity added in 2022 - showing that grid congestion is growing.



Offer flexible connections



Flexible assets can choose to accept a flexible connection where they are subject to occasional curtailment rather than waiting for the grid infrastructure to be in place.

Maintaining grid resilience



The culmination of all of those challenges lies in the daily struggle of managing the grid and ensuring the delivery of electricity at the right time and location.



Balance the grid in real time



Requesting flexibility from DERs in real time through a market platform can help boost grid reliability when responding to unexpected fluctuations in supply and demand.

Pressure to demonstrate affordability



Although the business model of grid operators differs around the globe, delivering affordable energy to end consumers is always a driving factor in any long-term plans.



Integrate flexibility platforms into your long-term planning to deliver an affordable grid



Incentivising flexible DERs through a flexibility market platform can help demonstrate the benefits and value outlined above to ensure a cost-effective approach to managing the grid.

