

GRIDBEYOND: UNLOCKING ENERGY FLEXIBILITY

As global electricity demand continues to grow, expected to about double by 2050,³⁵ and renewable energy resources increasingly make up the electricity generation mix, expected to be about 80% by 2050,³⁶ grid systems globally will need to adapt.

The variable energy generation from renewable sources increases the need for grid balancing and flexibility in global power systems. This requires scalable and real-time solutions to manage a rapidly changing energy system.

GridBeyond has developed a technology platform that manages distributed and flexible energy resources across the energy system to bridge the gap between distributed energy resources and electricity markets. By intelligently dispatching flexibility into the optimal electricity

markets at the right time, asset owners and energy consumers can unlock new revenues and savings, enhance resilience, manage price volatility, and support the integration of renewable energy sources.

Since its inception in 2010, GridBeyond has demonstrated that their platform not only unlocks the potential of energy assets but also the sustainability, resiliency, affordability, and adaptability of energy networks. GridBeyond's technology unlocks the latent power within every connected asset, whether its renewable generation, battery storage, or industrial load, to ensure each piece can play a vital role in balancing the grid and achieving net zero. In 2024, GridBeyond has a load portfolio of 2.6+ GW, 1.9+ GW of managed load, 500+ MW of battery storage, and 900+ client sites across the UK, Europe, North America, Japan, and Australia.

GridBeyond's technical knowledge across a wide range of industry sectors allows it to unlock energy flexibility across the energy sector, from front of the meter to behind the meter:

Asset Owner Front of the Meter (FTM): Maximize value and system lifetime of utility-scale energy storage and distributed generation assets.

Energy User Behind the Meter (BTM): Optimizing demand side assets of all sizes, to transform energy demand into opportunity.

GridBeyond Point, GridBeyond's AI-powered platform, connects operational, generation, and storage assets to readily manage energy flexibility automatically. The GridBeyond platform is split into three distinct areas:

TouchPoint is proprietary hardware that is directly connected to assets on-site, either physically or wirelessly. The system sends and receives data, enabling real-time control of assets.

CentrePoint is a cloud-based platform that sits at the heart of their system's artificial intelligence and machine learning. The platform analyses over 100 data sources to forecast energy market prices, site demand, and process schedules to then automatically dispatch flexibility into the energy programs that generate the most revenues without impacting production constraints and battery warranties.

ViewPoint is the customer facing interface to view energy activity. The system provides data on each asset, such as relevant programs, revenues, savings and trades while it also tracks and maintains asset health and availability.



Viewpoint hedging and trading dashboard at the NOC.



Carrey-Glass Site.



MacBook dashboard Ai. trading optimisation.

“GridBeyond is on a path to increase the reach of our intelligent energy platform and deliver world leading AI and powerful automation capabilities to smart grid and energy markets across the world. This supports our ambition to advance the transition of the global energy networks towards digitalization, decarbonization, and decentralization. All while enhancing commercial and operational benefits for market participants through fast-acting automation and optimization of flexible demand, storage and distributed generation.”

MICHAEL PHELAN,
Chief Executive Officer and
Co-founder of GridBeyond



900+

clients

2.6+GW

Load portfolio

500+MW

Battery storage

46,000

metric tons of CO₂e
emissions avoided
in 2024