



# The Future of Data-Driven Energy Pricing

Energy suppliers must harness the power of data to implement innovative pricing solutions that will ensure their business remains sustainable.

# Executive Summary

The energy sector is facing unprecedented volatility and disruption. From new technologies and increasing customer expectations to evolving regulatory requirements, change is coming from all sides. The only predictable aspect of business today is that change is inevitable. And the only way energy suppliers can remain competitive is by adapting to the changes and leveraging their data to implement a more robust pricing strategy.

This white paper aims to support energy suppliers as they navigate the key forces impacting the sector and prepare for the future of pricing. As market volatility and complexity intensifies, suppliers can look to a data-driven pricing system for adaptability and business sustainability. Specifically, this white paper will address:

## The Forces of Disruption

Changes in customer engagement, technological advancements, political conflicts, and extreme weather conditions are driving new levels of disruption and market volatility in the sector. Stable pricing structures and long-standing contracts are giving way to shifting expectations. Furthermore, new technologies and regulatory changes are adding to this evolving landscape. Future-ready strategies and robust stress-testing capabilities will be required to build resilience and thrive in the new normal.

## Harnessing Data

The strategic use of data has become a crucial part of business across many industries. Today, energy suppliers need to emphasise agility and competitive advantage by leveraging data to transform pricing approaches. Data-driven pricing systems ensure suppliers have deeper insight to analyse portfolios and make more informed, customer-focused product decisions. Access to the right data on the right system enables quick responses to emerging challenges and opportunities while ensuring compliance with regulatory requirements such as the market-wide half-hourly settlement (MHHS) from the Office of Gas and Electricity Markets (Ofgem).

## The Way Forward

In the future, energy suppliers will need a data-driven pricing system to remain competitive and balance flexibility, accuracy, regulatory compliance, and security, while improving operational efficiencies and building customer relationships through tailored offerings. The system will enable risk management with improved forecasting abilities and provide important customer insights to allow for responsive pricing. Furthermore, energy suppliers will significantly reduce today's manual efforts and errors.







## The Forces of Disruption

The world is rapidly changing. Customer engagement has become more active and informed, while new technologies are reshaping business to drive innovation. Political conflicts and tensions continue to drive market uncertainty, and extreme weather conditions are impacting daily life in significant ways. For the energy sector, these forces of disruption are defining today's business landscape.

Gone are the days of predictable business norms for energy suppliers. The once stable energy pricing structures, long-standing customer contracts, and lower risk profiles have changed with the heightened market volatility.

Energy suppliers can adapt to these shifting dynamics with future-ready strategies and by integrating robust stress-testing capabilities to strengthen their position in the market. Embracing a proactive stance today will ensure suppliers shape a resilient business strategy that anticipates and adapts to unpredictability, rather than reacting to its effects.

### Market Volatility and Demand

World and local events along with regulation structures continue to shape today's energy market landscape, driving new levels of volatility and complexity.

As climate change continues, extreme weather events are increasingly common. The 'Beast from the East' saw severe winter weather brought by easterly winds to plunge the U.K. into some of its coldest recorded temperatures in 2018.<sup>i</sup> This cold snap surged electricity demand by 10% and inflated prices by 50%.<sup>ii</sup> During peak demand, prices soared to five times the quarterly average, reaching £990 per MWh before plummeting by £150 per MWh.<sup>iii</sup>

Furthermore, during 2021-22, 29 energy suppliers collapsed due to rapidly rising wholesale gas prices.<sup>iv</sup> This surge was intensified as economies recovered post-pandemic and gas supplies from Russia declined.

Adding to these conditions, the energy price cap set by Ofgem did not align with the increasing wholesale pricing, resulting in limitations for energy suppliers with energy sales at a loss. For the remaining energy suppliers, operational costs also increased and added pressure to an already stressed environment.



In this crisis, many of the failed suppliers were unable to take on the costs of effective hedging strategies to manage procurement costs and withstand the impacts of market volatility. In fact, some suppliers reacted to this complexity by implementing nonviable pricing strategies to attract customers. Without hedging and a strong pricing strategy in this landscape, long-term business sustainability was unachievable.

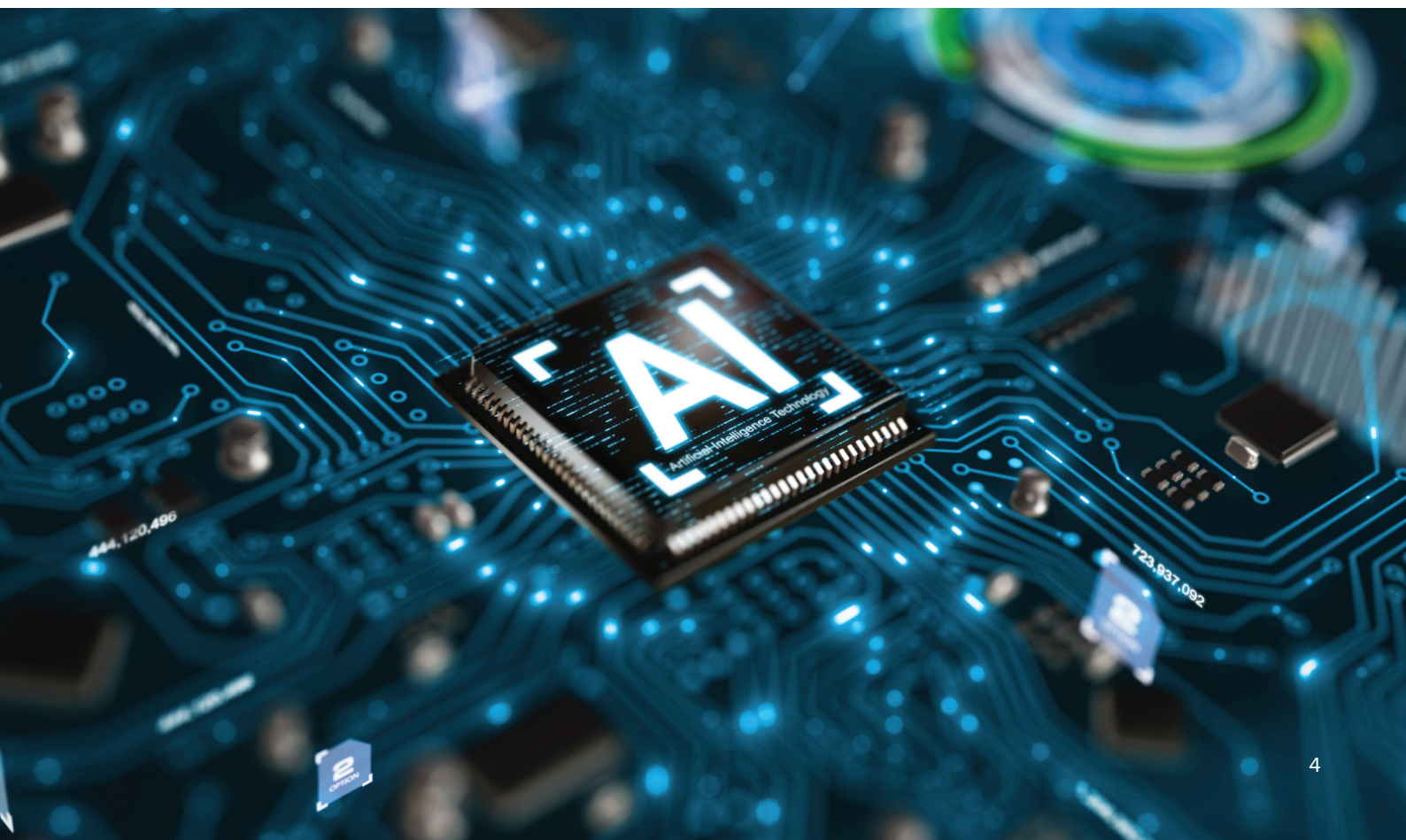
Today, global political tensions and uncertainties continue to add to the industry volatility. At one point, the conflict in Ukraine pushed average energy prices to a record high when day-ahead baseload contracts averaged £363.7 per MWh.<sup>v</sup> And political forces— such as the 2024 U.K. Labour Party sweep and its clean energy “superpower” pledges—are intensifying market unpredictability.<sup>vi</sup>

## New Technologies

Across the sector, the journey towards achieving net-zero goals is accelerating with innovative assets and solutions such as solar panels, storage systems, batteries, and the integration of data and artificial intelligence (AI). These technologies continue to transform energy production and consumption while also improving operational efficiencies, enhancing planning, and enabling smarter, more sustainable energy management practices. Suppliers will need to adapt and innovate to stay competitive.

## Impending Regulatory Requirements

Ofgem is set to implement a market-wide half-hourly settlement (MHHS), marking a significant regulatory change for energy suppliers.<sup>vii</sup> These mandated rules will require suppliers to streamline or change their processes/ systems to achieve compliance. Compliance will hinge on implementing robust pricing solutions capable of accurately measuring energy consumption in precise 30-minute intervals. For customers, this enhanced data accuracy translates to more informed choices and reduced energy costs. For suppliers, this means an increase in data processing and a need for technology investments for improved pricing processes.





## Moving to a “Time of Use” Model

These regulatory changes present a unique opportunity for suppliers to embrace more dynamic business practices, such as time of use tariffs. This approach segments customer pricing according to energy usage at peak and off-peak times of the day. A customer’s bill reflects how much energy was used and when it was used, compared to traditional plans that involve a set rate for usage throughout the day.

This model drives a deeper understanding of customer consumption patterns and behaviours, enabled through advanced data analytics and new technologies. By adopting this approach, suppliers enhance their ability to hedge risks effectively and improve forecast accuracy. This model supports more personalised and responsive pricing strategies that align with peak demand periods. However, to implement it, suppliers need the talent and technology capabilities to collect, store, and analyse vast quantities of data.

## Evolving Customer Expectations & Behaviours

Today’s customers are more empowered and engaged than ever. As noted in the white paper, *Powering our Net Zero Future*, “Smart technology is granting customers greater control, choice, and flexibility over their energy consumption.”<sup>viii</sup> Passive participation is a thing of the past. Customers are informed and proactive, looking for ways to optimise their energy usage, reduce costs, and make sustainable choices. For example, their increasing adoption of electric vehicles (EVs) reflects a more thoughtful approach towards both energy consumption and environmental impact. For suppliers, this is positive news as an engaged customer ensures more opportunities for trust building and long-term commitment while also holding the potential to attract new customers through recommendations.

## Harnessing Data for Adaptability

To navigate this complex landscape and ensure business sustainability, energy suppliers need a new strategy that offers agility and a competitive edge. This strategy will focus on leveraging their data to transform pricing processes.

For years, data has been recognised as fundamental to the future of business. Today, the need for data has grown to



new levels, and nearly every industry recognises its strategic use as a critical piece of the business puzzle.

By harnessing data for pricing, energy suppliers can gain stronger insights, analyse portfolios with precision, and empower more informed, customer-focused decisions. This deeper understanding ensures they can respond quickly to emerging challenges and opportunities.

Data processing will also play a key role in compliance for energy suppliers. Research shows most suppliers are not prepared to handle the level of data required for MHHS.

## The Way Forward: Data-Driven Pricing

To remain competitive and compliant in the future, energy suppliers can leverage their data to implement a robust pricing solution. Long-term stability and growth will rely on data in the right system and customers with the right product. That formula for success is powered by a data-driven pricing solution.

Such a pricing solution balances flexibility, accuracy, regulatory requirements, and heightened security while enhancing operational efficiencies and building customer relationships through tailored offerings.

In Formula One car racing, sage advice is, “Always be on the right tire for the conditions.” Energy suppliers can apply this guidance by offering the right product to the right customer at the right time.

However, achieving this degree of customer personalisation will require access to structured and actionable data. A pricing solution can ensure a supplier’s data is managed and stored properly so it can be leveraged effectively. And this is only one of the benefits.

A data-driven pricing solution also ensures:

- **Risk Management:** Scenario modelling to foresee and mitigate financial risks associated with volatile energy prices. Suppliers can pivot based on market events or conditions, ensuring stability even with fluctuations.





- **Regulatory Compliance:** Incorporating regulatory changes into pricing strategies ensures compliance with current energy policies and market rules. Upcoming changes, such as MHHS, can be easily incorporated.
- **Insights for Customer Engagement:** Access to granular data allows suppliers to understand consumption patterns, predict demand, and tailor pricing strategies to different customer segments. (Once again, the right conditions for the customer drives results.) This access to data for insights also enables suppliers to enhance their reporting capabilities to look at post-sales. They can capture all offers to analyse and evaluate contract performance post-acceptance, gaining a deeper understanding of non-commodity and regulatory impacts through charges.
- **Responsive Pricing Adjustments:** Real-time adjustments to products and prices in response to market fluctuations help maintain competitiveness, manage risk, and maximise margins.
- **Operational Efficiency:** Automating the pricing process reduces manual effort and the risk of error, leading to more streamlined operations. Data scattered across multiple systems frequently leads to inefficiencies and pricing discrepancies. Current practices, like the use of spreadsheets, are prone to human errors—including costly copy-and-paste mistakes—and present issues with local drive storage and security vulnerabilities.
- **Forecast Accuracy:** Enhanced forecasting abilities enable more efficient energy purchases in wholesale markets, reducing costs and improving supply chain management. Furthermore, improved forecasting enables better hedge and trading positions to significantly reduce risk and exposure.



## A Pricing Solution Offers Rewards Across the Business

Pricing touches every part of an energy supplier's business. Moving forward with a data-driven pricing solution will benefit each layer of the organisation.

Today, energy suppliers struggle with conflicting internal perspectives and priorities that interfere with setting prices. For example, the sales department can prioritise competitive pricing to attract and retain customers, while pricing managers want to drive revenue growth. Balancing these priorities is essential for maintaining a competitive edge in the market.

Heightened security is another key benefit for the organisation after a pricing solution implementation. With teams transitioning to new pricing processes, manual work is phased out and data protection is prioritised.



Here's how teams in the organizations benefit from a data-driven pricing solution:

- **Sales:** In a price-sensitive market, the sales department is striving to achieve a price that is competitive for new and existing customers. A pricing system and automated processes help to reduce bottlenecks and the drain on key resources.
- **Finance:** Finance departments are searching for transparency in incoming revenue and the cost profiles of ever-changing portfolios. Utilising advanced analytics and providing detailed insights and data visibility, a pricing solution helps identify potential risks before they emerge to enhance forecasting abilities. Furthermore, it can provide a granular meter-level view of a portfolio to make more informed decisions that directly impact the balance sheet.
- **Billing:** Billing departments are working to ensure that accurate bills go out the door on time, every time. The team also needs to ensure they can bill the correct product and tariff to the right customer. A pricing system that integrates seamlessly with billing, reporting, and settlements will bridge a common industry gap between product innovation and billing efficiency. It equips the team with the flexibility required to drive innovation and new product development while also supporting the calculations required to accurately bill a customer.
- **Operations:** Operations are looking for ways to streamline workflows and become more efficient such as by building automated registration and billing processes fuelled by accurate pricing data. This frees up resources and allows the business to scale with more ease.
- **Traders:** For traders, the challenge is found in aligning sales with market purchases while managing portfolio risks. They need a pricing system that provides visibility of the most granular consumption and forecast data that allows them to make informed purchasing decisions.



## How to Get Started

The energy sector must adjust to the evolving forces of disruption as the new normal. With a data-driven pricing solution, energy suppliers can find the balance between adaptability and accuracy to ensure their business thrives amidst market volatility.

Here's how to start building for the future:

### Ask the Right Questions

- How much time will it take to implement a pricing solution? What is the cost to implement?
- How will the pricing solution fit into our current system? What will it replace? (Anecdotal data shows highly skilled team members can spend almost 70% of their time working on time-consuming tasks that could be completed by a pricing system. This reallocation of time means team members can focus on other areas and tasks for added business value.)
- How will a pricing solution enable us to reallocate time for more strategic activities?
- How will a pricing system be future proofed for new regulatory and market changes?
- How will our teams be trained to use a pricing solution? What is the cost and time requirement for this training?
- How will my data feed the pricing solution? Are there API (Application Programming Interface) connectors for additional automation?
- How can we access and utilise the data within the pricing system?
- How will we establish a data governance framework to support a pricing solution?
- How much autonomy do we have with the pricing system versus support from the vendor?





## Plan Your Journey with Key Steps

1. Select the right pricing solution: Choose a pricing solution that meets your needs, ensures data security, and integrates seamlessly with your current systems.
2. Train your teams: Ensure your teams are trained to use the new pricing solution for a smooth transition stage.
3. Use the pricing solution: Start putting some of your contracts through the solution now. Make smaller moves to get comfortable and test before a full-scale rollout.
4. Monitor and track the results: Analysing the feedback and results will ensure you can make data-driven adjustments for business improvements.

It's important to remember that a pricing solution does not require a major change management program. It requires action and adaptability. The strategic implementation of a pricing solution will ensure energy suppliers remain competitive in the future landscape.

With today's forces driving complex and volatile market dynamics, energy suppliers must rely on a data-driven pricing solution for strategic business resilience. By leveraging data and transforming pricing practices, energy suppliers will remain adaptable and empowered as they take on tomorrow's challenges and opportunities. And now the only question remaining is: Are you ready?

For more information and to request a demo, contact  
**power@esgglobal.com**

### About ESG

ESG provides a complete software platform for energy providers, enabling critical solutions in market and asset management. ESG combines a SaaS architecture, flexible integration, infrastructure planning data, and continuous innovation with sector expertise and decades of experience to provide the most adopted software platform in global energy markets, including Energy Retail and Renewables. The company serves over 800 blue chip energy players and over 40 million end users worldwide. Learn more at [www.esgglobal.com](http://www.esgglobal.com).

<sup>i</sup> (n.d.). Beast from the East. Met Office. Retrieved June 20, 2024, from <https://www.metoffice.gov.uk/weather/learn-about/weather/atmosphere/air-masses/beast-from-the-east>

<sup>ii</sup> (n.d.). Q1 2018: The Beast from the East. Drax Electric Insights. Retrieved June 1, 2024, from <https://www.statista.com/statistics/589765/average-electricity-prices-uk/>

<sup>iii</sup> (n.d.). Q1 2018: The Beast from the East. Drax Electric Insights. Retrieved June 1, 2024, from <https://www.statista.com/statistics/589765/average-electricity-prices-uk/>

<sup>iv</sup> (2022, August 22). Energy supplier collapses highlight bigger sector crisis. ICAEW. Retrieved June 1, 2024, from <https://www.icaew.com/insights/viewpoints-on-the-news/2022/aug-2022/energy-supplier-collapses-highlight-bigger-sector-crisis#:~:text=But%20then%20from%20mid%2D2021,July%202021%20and%20May%202022.>

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<sup>vi</sup> (2024, July 5). Labour promised to make the UK a clean energy superpower: Can it deliver? Recharge News. Retrieved July 20, 2024, from <https://www.rechargenews.com/energy-transition/labour-promised-to-make-the-uk-a-clean-energy-superpower-can-it-deliver-/2-1-1672865>

<sup>vii</sup> (2021, August 11). Market-wide Half-hourly Settlement: Decision on implementation arrangements. Ofgem. Retrieved June 20, 2024, from <https://www.ofgem.gov.uk/decision/market-wide-half-hourly-settlement-decision-implementation-arrangements>

<sup>viii</sup> BEIS (2020, December 1). Energy White Paper: Powering our Net Zero Future. GOV.UK. Retrieved July 1, 2024, from [https://assets.publishing.service.gov.uk/media/5fd6c1e2d3bf7f3a3bdc8cbf/201216\\_BEIS\\_EWP\\_Command\\_Paper\\_Accessible.pdf](https://assets.publishing.service.gov.uk/media/5fd6c1e2d3bf7f3a3bdc8cbf/201216_BEIS_EWP_Command_Paper_Accessible.pdf)