



Amber: Datalytx helps award-winning energy consultancy move people closer to net zero.

Established in 2009, award-winning energy consulting firm Amber has an innovative, holistic approach to energy management, helping its clients to bring down costs, reduce carbon and move closer to net zero. A Certified B Consultant, meaning it is legally committed to prioritising its responsibilities to the environment and society, Amber was named Consultancy of the Year at the energy industry's TELCA awards in 2020.

"Our mission is to fix utilities, save the planet, and improve people's lives," says Charlotte Beard, Business Analyst. "We work for landlord clients in the build-to-rent sector, like purpose-built student accommodation (PBSA). Amber helps them save money in their energy contracts and gain new efficiencies, encouraging them to invest in new technologies to move closer to net zero." Amber has worked with Datalytx to create a powerful data and analytics platform to underpin the new Amber Insight app, including the use of Snowflake and DataOps.live for data pipeline orchestration, automation and governance.

Client



Award-winning consultancy helping businesses with net zero commitments to reduce their carbon and costs.

Challenge

Powering a new 'cost, carbon and analytics' data-driven app that supports buildings in their efforts to reduce energy consumption, carbon outputs and costs.

Solution

Datalytx technical skills and consulting deliver a data-centric platform drawing on multiple data sources, using a Snowflake data hub and DataOps.live SaaS solution for orchestration and automation, all on AWS.

Benefits

A powerful predictive tool for Amber's clients to better understand energy consumption and costs, enabling behaviour change, and promoting new investments in technologies and initiatives to reduce carbon outputs.

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- Charlotte Beard, Business Analyst, Amber

Why Datalytx?

Charlotte Beard says Amber recognised the need to bring systems and data sources together in a more integrated way, with a central data repository. Snowflake was implemented in late 2020, with the company using Datalytx expertise for further development since then.

Created with financial support from the Welsh government's SMARTCymru programme, Amber Insight is a data-driven app for mobile, tablet and desktop. It uses data from multiple sources, which are coordinated by the Snowflake data hub.

Described as a 'personal fitness app for the energy world', Amber Insight "functions as a cost, carbon and consumption analytics tool," explains Oliver Johnson, Associate Data Engineer. "Users can create and manage their carbon reduction plan, with data on their own buildings enriched by overlaying data from other sources, and setting key performance indicators (KPIs)."

Johnson continues, "The main input you need is a good measure of what a client and their buildings are consuming. The data we ship is mainly meter readings from residential blocks, and half-hourly consumption data for nearly 2,000 fiscal meters. We ingest around 1.5 million reads each day, from several different meter manufacturers and sources - plus invoice consumption data, and budget data based on in-house expertise as another indicator of consumption. Our CRM system, Salesforce, provides data on a client's site portfolio and, as this is a predictive tool, we use cost projections of the markets from our Trading team. We also use high-level carbon emission projections from the Department for Business, Energy and Industrial Strategy. The National Grid is projected to decarbonise at a fairly rapid rate, so that's another factor taken into account when we give a client their trajectory to net zero."

All this data is ingested into Snowflake, where it undergoes the calculations and aggregations needed to prepare it for the Amber Insight app, which makes direct API calls to the warehouse. "Datalytx helped us with a lot of the development needed for Snowflake, with attaining new data sources and integrating different systems. Datalytx helped set up the scripts to ingest all this data into Snowflake."

The value of data: new energy and carbon insights

Working with data in this way, creating useful predictive outputs for clients, is core to Amber's business says Beard. "Data is essential to show people their energy usage. It's key to what we do at Amber: providing knowledge and creating that awareness, not only on the corporate side but also working with residents so they understand the energy they consume. It's the first step towards helping people change the way they use energy."

Insights available through Amber Insight act as behavioural triggers; building owners can use the app to explore the potential impact of new technologies and initiatives on reducing consumption and costs. For example, battery storage, or savings possible by switching to LED lighting. As energy prices hit unprecedented levels and previous avenues to reducing cost disappear, improved efficiency and lower consumption are now the only options left.

With the insights available to the business, Amber can also support its clients in complying with mandatory environmental, social and governance (ESG) regulations for carbon reporting and net zero, such as ESOS (Energy Savings Opportunity Scheme) and Streamlined Energy and Carbon Reporting (SECR).

Peter Chase, Account Director at Datalytx says, "As society moves towards net zero, organisations need access to clean, relevant, high-quality data that can be presented and analysed to understand the environmental impacts of their activities. Amber Insight is a great example of such an approach. Datalytx can help organisations to make use of industry best practices and the most effective data technologies to achieve great outcomes quickly and efficiently."

Johnson adds, "Engaging with Datalytx took us further down the path, in terms of what we can do with our data. 100 percent. So much of this couldn't have been done without Datalytx. They provided invaluable technical skills and services, expertise and advice — data consultancy — to help us make the right decisions, fundamental decisions, about how we work with our data." With its centralised data hub and DataOps processes in place, Amber can develop new data products faster, delivering even more net zero insights and support to its clients.

About Mphasis Datalytx

Having partnered with some of the best companies in the data analytics, big data and data warehousing world over the last 10 years (AWS, Microsoft, Talend, Snowflake, etc.) we have seen both the best and the worst of data platform deployments within customers. And in complex, heavily instrumented industries, the convergence of traditional data and real-time IoT streams creates even bigger problems with the sheer volume of this data. To turn raw data into actionable information at scale, businesses need a way to quickly respond to business demands while guaranteeing data security and data governance.

In 2018 Mphasis Datalytx started looking at how we could reduce the time to insight, and accelerate the time to value for our customers. In 2019 we developed our technologies around the emerging discipline of DataOps (with a clear focus on the true principles of DevOps) and extracting value from volume in IoT data. And in 2020 we publicly shared our DataOps Philosophy (#TrueDataOps) and released our DataOps for Snowflake platform supported by our patent-pending IoT Data Compression algorithm.

Mphasis Datalytx makes it easier for you to do cool, critical, valuable and smart things with data. We provide the resources, skills, and technology to deliver better data faster with reduced risk, fewer headaches and lower overall cost.



Base Point Business Centre,
377-399 London Rd, Camberley GU15 3HL, United Kingdom
Tel: +44 (0)2036 379155 • Email: info@datalytx.com
www.datalytx.com