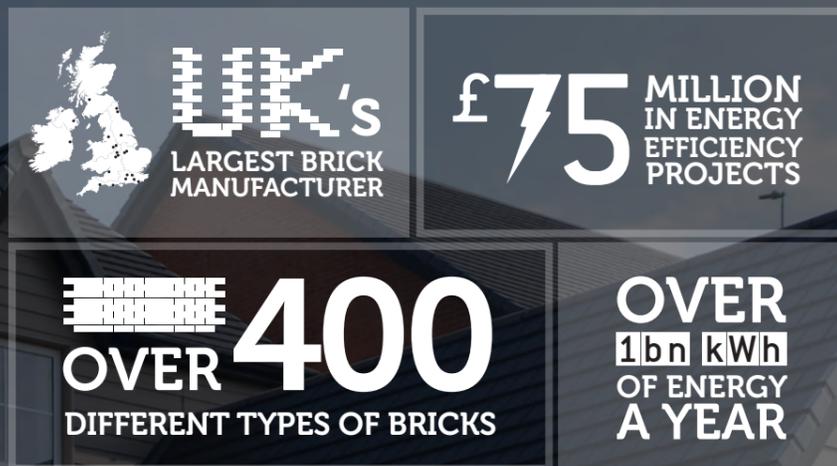


IBSTOCK CASE STUDY

OPEN FOR BUSINESSES



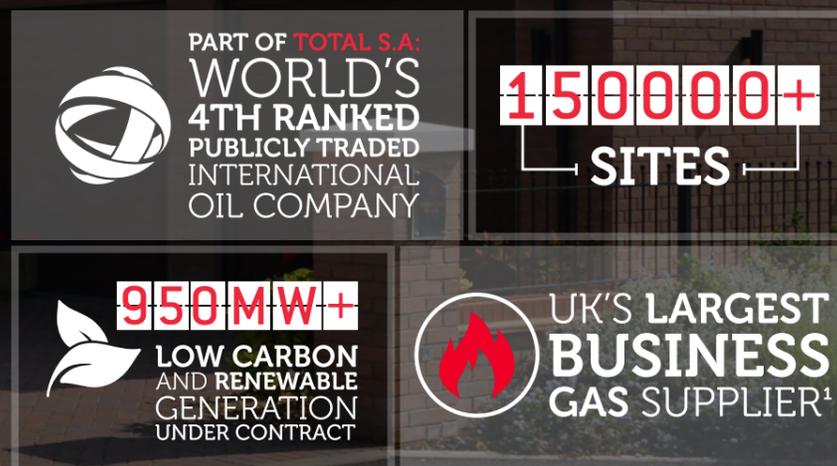
WHO ARE IBSTOCK?



Ibstock Brick Limited is the largest clay building products manufacturer in the UK - making over 400 different bricks.

The manufacturing of this capacity of bricks results in using in excess of one billion kWh of energy a year. As a market leader they believe that they have the responsibility to lead by example when it comes to energy management and energy use reductions. Over the last decade they have invested over £75 million in energy efficiency projects.

WHO ARE TOTAL GAS & POWER?



Total Gas & Power understand that UK businesses have individual, and on occasion, unique business requirements. By constantly adhering to these needs, customers are offered only the most appropriate products and services.

¹ Cornwall Energy April 2015. Largest business gas supplier by volume

"Our close working relationship with Total Gas & Power is enabling us to successfully control energy costs and implement our energy management strategy so we can future-proof our business as the markets and regulatory environment changes."

Michael McGowan
Ibstock's Energy Manager.

Operations across the UK:

- 19 brickworks
- speciality brick assembly sites
- 23 active clay quarries
- 2 distribution centres

Their pro-active approach to energy management is a commercial imperative to competitiveness because energy costs represent a significant proportion of operational costs and have seen fixed costs increasing year-on-year with European and UK regulation. Ibstock, like any energy intensive business, is subject to a number of regulations such as peak-time energy use charges, carbon floor price, feed-in-tariff and the renewable obligation. By 2020 it is estimated half of electricity costs will be related to the non-base fees.

Ibstock appointed Total Gas & Power (TGP) as their chosen energy supplier for gas and electricity because we provide them with:

- **A fully traded flexible supply contract**
This includes:
 - No risk and shape charges
 - No balancing costs
 - An ability to optimise costs through load management
 - A streamlined and clear monthly invoicing system
- **Bespoke reporting and market intelligence**
This allows Ibstock to make informed buying decisions. We understand the budgetary requirements of our major business customers and help to manage risk in order to meet these requirements. This reporting is supported by a close relationship with our Procurement Desk, based in Canary Wharf, and renowned in the market place for its flexible and open working practice. This relationship means that Ibstock has immediate access to one of the most active trading desks in the UK who will provide up-to-the-minute information on market conditions, technical advice on supply constraints, storage, maintenance and a host of other issues which are affecting the market on any given day. In addition, Ibstock have access to a wide range of risk management tools including a unique trading platform as well as more standard tools such as trigger mechanisms and bespoke alerts.
- **Regulatory updates**
The ever increasing regulation in

the energy market along with the associated environmental and financial impact requires Ibstock to be up to speed on market changes. We provide Ibstock with detailed regulatory updates as well as making sure their voice is heard in supplier forums where decisions will have a direct impact on the environment and their own business plans. Ibstock in turn provide us with much needed feedback on the concerns of major energy users and are themselves directly engaged with all key decision making bodies in this arena. This collaboration is extremely useful to both parties in influencing how we plan for the future.

- **Technical advice**
This ensures compliance when monitoring and measuring their energy use. Ibstock are very conscious of their responsibilities to the environment and work tirelessly to ensure they follow all reporting and regulatory requirements in terms of carbon reduction. Where there are any technical or system concerns, TGP ensure these issues are escalated to senior members of management where TGP have the direct relationship e.g. National Grid Metering. In addition, high level joint meetings between TGP and Ibstock, which include relevant bodies such as National Grid Metering means that any concerns or positive contributions to improving the service provided by third party organisations are heard directly from customers such as Ibstock.
- **Site support**
As part of the service solution, we provide regular power and gas consumption reports, which include half-hourly power consumption data and gas daily reads. We also give summary reports to show individual sites maximum demands for use which can be used for capacity planning.



“Engagement at all levels was fundamental to driving the necessary behaviour change to achieve our goals.”

“We are very proud of our partnership with Ibstock, a long-standing business leader in the construction industry. It is of high importance to us that we can provide an energy supply contract to meet the needs of British manufacturing businesses so they retain competitiveness in the market. Core to the services of our major business is tailored expertise and intelligence to help businesses like Ibstock have an energy strategy that minimises risk to any fluctuations in energy prices.” Chris Billing, Director of Major Business, Total Gas & Power.

Achieving ISO 50001 Compliance

Demonstrating Ibstock’s commitment to energy management, they became the first UK brick manufacturer to implement the International Energy Management Standard ISO 50001:2011. This built on their achievement of being the first to achieve all sites to ISO 14001 for their Environmental Management System. Holding ISO 50001 certification is supporting Ibstock’s compliance with the requirements of the UK’s Energy Saving Opportunity Scheme (ESOS), launched in early 2015.

Ibstock’s motivation for implementing ISO 50001 was to:

- Make better use of the energy they consume
- Achieve consistency in production processes through their people
- Reduce energy consumption and their CO₂ emissions
- Benefit their people both at work and at home.

Michael McGowan, Ibstock’s Energy Manager, is extremely proud of what the ISO 50001 process has achieved for Ibstock as it has given them: “a clear roadmap, effective communication tools, supportive external partnerships and, above all, employee involvement. Engagement at all levels was fundamental to driving the necessary behaviour change to achieve our goals.”

Inenco/NIFES assisted with the implementation of ISO 50001 and helped ensure full integration with their ISO 140001 practices. Lucideon has certified their compliance with ISO 50001 and NIFES their compliance with ESOS.

What is ISO 50001:2011?

ISO 50001:2011 provides a framework of requirements for organisations to continually improve and to integrate energy management into their overall efforts to improve environmental management.

The requirements are to:

- Develop a policy for more efficient use of energy
- Fix targets and objectives to meet the policy
- Use data to better understand and make decisions about energy use
- Measure the results
- Review how well the policy works
- Continually improve energy management.

ISO 50001:2011 specifies how to measure, document and report design and procurement practices for equipment, systems, processes and personnel that contribute to energy performance. Organisations can choose to self-evaluate and self-declare conformity or have their energy management system certified by an external organisation to show external parties their achievement. ISO 50001 complements ISO 9001 and 14001 for environmental management.

“...Taking a people-first approach to our energy strategy has had 100% support from the Management Board, which has been key.”

Putting energy management into practice

Ibstock has taken a people-first approach to implementing good practice in energy management. Michael says, “for us to achieve our goals in energy management we require our people to consider and embed good practices into their day-to-day work in running equipment. Taking a people-first approach to our energy strategy has had 100% support from the Management Board, which has been key. Following this Mulholland Energy Solutions created a tailored energy management training programme for our staff. Furthermore, we developed a joined-up communications strategy to reinforce and have consistency in our messaging to staff. This draws on the talent and commitment of a team of factory and marketing personnel to set-up and drive the necessary behavioural change for all employees across the business.”

Communication

Training

They developed and have completed a two year training plan to cover all factories. Training is tailored to two classifications: SEU (Significant Energy Users) and AEU (All Energy Users) and focuses on what individuals can do to save energy at work. Each training session commences and finishes with an interactive quiz to gauge knowledge and understanding, following which, a report is generated. The initial training package was piloted first and a subsequent rollout programme to everyone across all their factories was developed and carried out by Mulholland Energy Solutions. On completion of the training programme all staff will be trained and, going forward, will receive regular updates.

Saving Energy Pocket Guide

Ibstock created a pocket guide for all employees which demonstrates how to save energy at home and work and why it matters.

Quick Reference Guide

This was seen as an important information tool for all employees and covered: what ISO 50001 is, what its benefits are and what Ibstock are doing to use energy more efficiently.

Sustainability DVD

Forming part of their continual improvement in environmental management training and awareness, this DVD incorporates everything from legislation, land use, water use, energy management and communication matters.

Results

There have been successes during Ibstock’s journey to achieving ISO 50001 through their people-first approach.

Their Centre of Excellence has proved to be a real accomplishment in piloting technology.

Here, they have seen:

- More effective use in electricity consumption for compressed air
- More effective use of the gas we consume
- Creation of a training package
- Across the entire business, Ibstock have witnessed further evidence of immediate behaviour change including:
 - KPIs agreed by their Sustainability Working Group which are in turn aligned with the industry body, the BDA (Brick Development Association)
 - Sub metering piloted at the Centre of Excellence which is now being rolled out to all factories to include gas, electricity and water
 - An energy co-ordinator (a Champion) at each factory

Additional forecasted savings are:

- Standard lighting developed at the Centre of Excellence and to be rolled out to all factories with expected efficiency of electricity use across the business
- Following a trial at the Centre of Excellence, a Motors and Drives Strategy is being developed.

Ibstock have worked closely with TGP in order to ensure the latest technology and energy initiatives are understood and implemented where appropriate.

Next steps

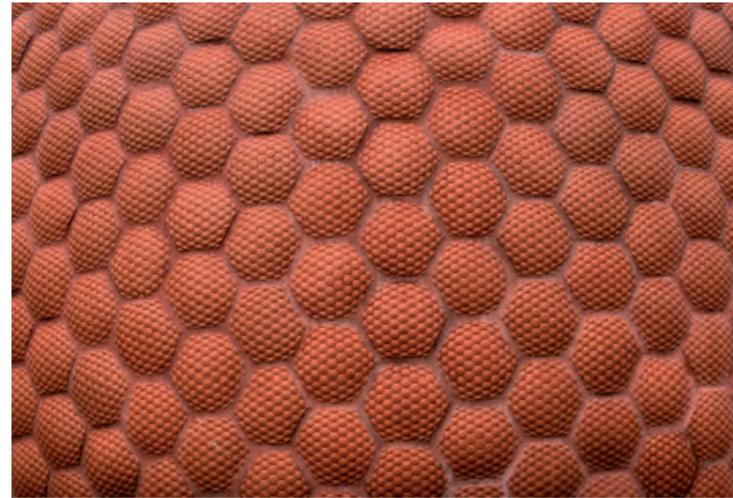
ISO 50001 is a framework for continual improvement. Ibstock have worked closely with TGP in order to ensure the latest technology and energy efficient initiatives are understood and implemented where appropriate. TGP have provided expertise and technological advice which has complemented Ibstock's Centre of Excellence initiatives. Ibstock have set up the measurement infrastructure with the installation of half-hourly automatic metering of gas and electricity and are keen to now make better use of the data collected. TGP understand the need for accurate and timely data in highly regulated industries. This is where TGP's Energy Services Team and Ibstock work closely together on Automated Meter Reading and metering projects which are designed to provide solutions that comply with all latest regulatory requirements.

This will help Ibstock make more informed decisions and monitor the effectiveness of different measures. They anticipate this process of analysis will highlight further opportunities. In addition, they are interested in more granular monitoring at the sub-meter and equipment level to ensure performance is optimised.

Ibstock plans on 5-10-15 year time horizons so are always looking at what energy efficiency and generation investments have business viability. They are open to explore new technologies that would have emission reductions. They use their Centre of Excellence to pilot technologies and then based on the learnings, roll-out viable technologies. Like many industry businesses the availability of financing, energy prices, technology appropriateness, government support and the regulatory environment all dictate what innovative energy efficiency technologies Ibstock can adopt.

Industry leadership

Ibstock is an active member of the British Ceramic Confederation. Michael is Chairman of the Heavy Clay Energy & Emissions Group. In addition, Ibstock has been at the forefront of developing products that address sustainability throughout their lifecycle. They were part of an industry wide initiative to complete BRE verified Environmental Product Declaration that meets the requirements of the standard EN 15804:2012 Sustainability of Construction Works.



For more information please visit
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