Distributed Energy

Powering Greater Manchester's Economic Future

July 2018

Powering Performance

Powering Resilience

Powering the Future

Centrica is helping organisations take advantage of intelligent, end-to-end solutions so they can monitor, manage and optimise their energy to power performance, resilience and growth.

See inside for what this means for key sectors of Greater Manchester's economy and how your area could benefit.

centrica
Business Solutions

We have calculated the potential savings from distributed energy solutions across all non-domestic electricity consumption in Greater Manchester to be **£105.2 million.**

This figure is based on reductions of 15 per cent on bills – which we have found to be achievable from sites where we have installed these technologies.

Our analysis suggests that if just 50 per cent of three key sectors utilised distributed energy solutions it could deliver the following for the sectors in Greater Manchester:

Industry

£22m
per annum

Industrial

- Reduce energy costs by £22 million per annum
- Contributing £561 million for Greater Manchester GVA

Healthcare

£5m
per annum

NHS Greater Manchester

- Reduce energy costs by £5 million per annum
- Contributing £36 million for Greater Manchester GVA

Hospitality and Leisure

£12m
per annum

Hospitality and Leisure

- Reduce energy costs by £12 million per annum
- Contributing £149 million for Greater Manchester GVA

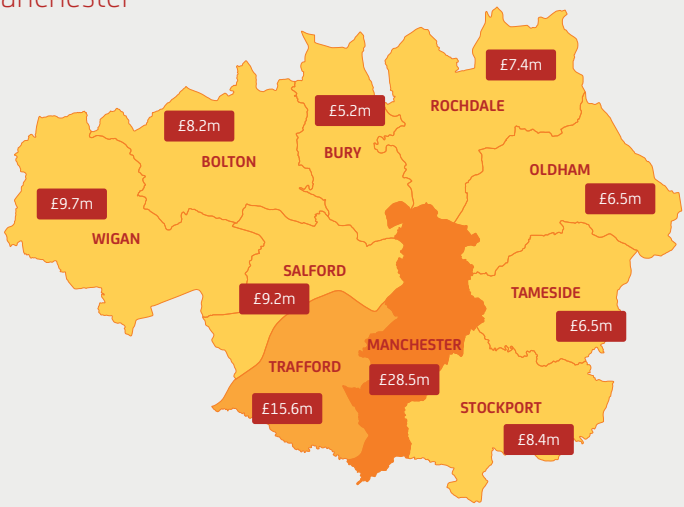
These three sectors alone then would add £746m to the GVA of Greater Manchester, supporting an estimated 10,500 jobs.

Powering Greater Manchester

Breakdown of projected savings across the 10 combined authorities of Greater Manchester

Key

- £20m - £30m
- £10m - £20m
- £10m or Less



Energy solutions made in Greater Manchester

Technologies developed by Centrica Business Solutions are helping businesses in Greater Manchester reduce their energy bills and greenhouse gas emissions across Britain and beyond.

We are designing and delivering state-of-the-art Combined Heat and Power (CHP) systems from our engineering and manufacturing base in Salford.

By capturing and using heat that is normally wasted in conventional power generation, CHP systems are achieving energy efficiencies of 90 per cent and cost savings of up to 40 per cent.

Established in Salford in the 1980s, the business has now installed more than 3,000 units worldwide, across public and private sectors.

Local examples of CHP installs include Manchester Town Hall and Library and three of Trafford's leisure centres, as well as hotels in the city centre.

Centrica is a significant employer across Greater Manchester with contact centres in Old Trafford, Hattersley and Stockport. British Gas service and repair engineers and smart energy experts are at work in every community all year round.

Message from Cllr Alex Ganotis

Leader of Stockport Metropolitan Borough Council and lead on GM Green City Region

At our first Greater Manchester Green Summit in March, I said that never again do we want to talk about the green agenda as something separate from our everyday lives, our jobs and the economy.

It is central to everything that we do, as this report confirms.

So I am delighted that Centrica is fulfilling the pledge it made at that summit by sharing insight into the savings that could be achieved across our region through new technology and distributed energy solutions that give the customer more control.

Thanks to this information we can see clearly that monitoring, managing and optimising energy use is worth over £100 million a year across Greater Manchester.

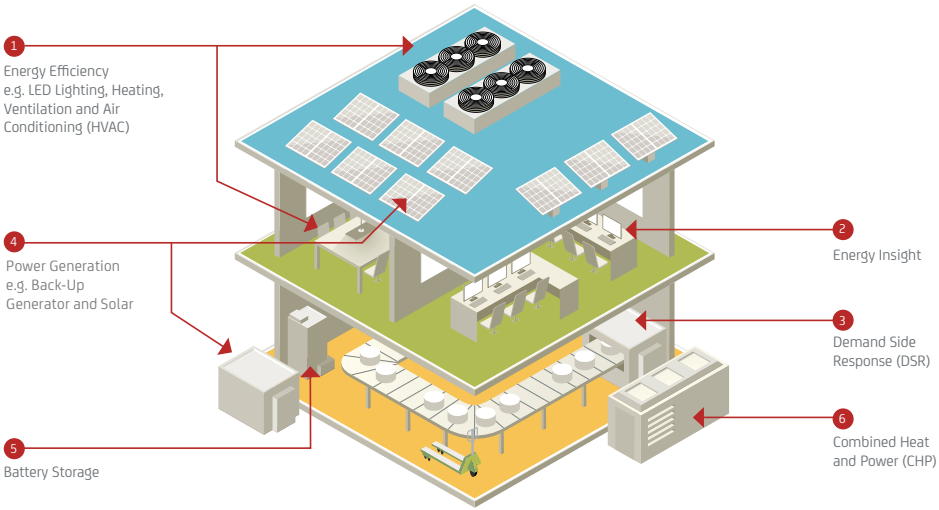
I look forward to working across sectors so we can start to see these savings come through.

What is distributed energy?

The first step in understanding the potential of distributed energy solutions is understanding what the term means.

The World Alliance for Decentralised Energy defines this as "electricity production at or near the point of use, irrespective of size, technology or fuel used – both off -grid and on-grid." We believe that this is a good start, but is too narrowly defined.

Distributed energy should also cover a much broader range of solutions, including energy efficiency, monitoring and on-site generation, that can help organisations to take control of their energy and turn it into an opportunity.



1. Energy Efficiency

Reducing costs by upgrading or improving a range of energy-consuming processes.

2. Energy Insight

New technology is available that allows larger energy users to accurately monitor their energy use across all equipment and devices. For example, Centrica Business Solutions' own Panoramic Power technology.

3. Demand Side Response (DSR)

Revenue streams are available for energy users if they are able to reduce, or even increase, their energy consumption at times when the grid demands it. New technology allows energy users to respond to these changes in demand quickly and easily and without putting security of supply at risk.

4. Power Generation

A range of small-scale power generating technologies can provide on-site generation; delivering back-up power and the ability to sell excess energy back to the grid.

5. Battery Storage

Lithium-ion battery storage systems can be charged at cheaper times and then used when prices increase to better manage energy costs. They can also work alongside renewable technologies, which on their own are intermittent, and can be used to support the grid, which will create new revenue.

6. Combined Heat and Power (CHP)

CHP plants work by converting gas into both electricity and heat in a single process. It's one of the most efficient sources of energy and allows significant amounts of energy to be produced on-site, improving the resilience of supply, reducing costs and helping to reduce carbon emissions.

This summary has been compiled from our Powering Britain report, which you can see here: www.centrica.com/news/powering-britains-economic-future
For more information about distributed energy solutions and case studies of some of our projects: centricabusinesssolutions.com