

Case Study

Peterborough City Council – Saving through energy

'Blue Sky Peterborough' is a ground breaking project which will define the blueprint for sustainable energy management in a smart city environment. It is an iconic project which addresses the current political dilemma of both rising energy prices whilst providing access to regeneration and growth for the local economy through energy led funding solutions. Blue Sky Peterborough is innovative and industry leading opportunity that may well become the blueprint for how local authorities and utility companies operate in the future.

As Councils all over Britain face the challenge of rising energy prices, Peterborough Council's innovative approach to energy saving schemes is boosting the city's local economy. With a Council Leader, Councillor Marco Cereste, keen to invest in energy, and the drive of John Harrison, Executive Director Resources who is also the Managing Director of the Council's Energy Services Company, Blue Sky Peterborough Ltd, income generation activity is deeply embedded within the culture of the Council. Peterborough City Council have devised a strategy to generate renewable energy and reduce energy consumption while generating income and creating financial benefits for the community.

The energy performance contract between the City Council and Honeywell Solutions Ltd, marks the culmination of a process which began two years ago. A contract to deliver guaranteed energy efficiency for non-domestic properties has therefore been let to Honeywell Solutions to address the financial benefits of investment in energy efficiency schemes. That then left the challenge of domestic energy efficiency.

Equipped with a reputation for innovative programmes benefiting commercial, public and private sectors, Peterborough City Council has secured a landmark agreement with British Gas – the first strategic partnering agreement undertaken by the energy provider with a local authority. "Heataborough" is a scheme designed to help residents of Peterborough heat their homes more efficiently and save money on their energy bills. The Energy Company Obligation (ECO), a government initiative being delivered by all major suppliers as well as British Gas, is designed to help low income families access energy efficiency measures, such as loft and cavity wall insulation, boiler repairs, and double glazing. Committing to the objectives of Peterborough's energy efficiency programme, British Gas will fund these improvements to boost the energy efficiency of 7,000 homes across the city. With Peterborough City Council

and British Gas working together to target low income communities, vulnerable residents and hard to treat properties, the programme will help householders reduce energy costs and improve their carbon footprint over the next few years.

Further funding will also be available for private households to benefit from new central heating and energy efficiency opportunities for wider communities. The programme will be particularly beneficial to households experiencing the impact of reforms to the welfare benefits system.

Expected to generate at least £7 million income for local contractors as well as creating local jobs, the programme combines the funding streams of ECO (Energy Company Obligation); affordable warmth, carbon savings, and CSCO (Community Saving Company Obligation).

Other innovative approaches include the following:

PETERBOROUGH COLLECTIVE SWITCHING SCHEME

The 'Ready to Switch?' scheme run in partnership with 15 other councils, is now the largest collective switching scheme in the UK with 43,550 households having registered across the 4 rounds run to date. The scheme gives households the opportunity to join together as a single unit to negotiate cheaper gas and electricity bills with providers. Since its launch in November 2012, there have been four auction rounds and the energy companies who have won categories include Scottish Power, British Gas, Ovo Energy, Co-operative Energy, Sainsbury's Energy and Green Star Energy. Residents receive a personal letter and email detailing the amount they can expect to save and have the choice of making the switch. The latest auction which took place on 19th November 2013 has indicated that the highest average saving was for dual fuel online customers who stand to save an average of £130 a year.

SOLAR PANELS AND BEYOND

In line with the Council's Capital Agenda to create 'green energy', the Council has also been promoting the installation of solar panels on public buildings and schools to generate renewable energy which can be sold to boost the local economy. The roof-top solar framework with Mears will shortly be available to other local authorities and will give them quick and cost effective access to the benefits Peterborough is enjoying without having to go through an OJEU procurement.

Despite the challenges of winning support for schemes which some regard as controversial, John Harrison emphasises the importance of councils investing in technical, financial and legal advisors to gain a better understanding of the often hidden potential of local government schemes to generate income, while also using industry leaders to share their learning to drive income early at minimum risk to councils. He emphasises that having an appetite for risk is key in a climate of economic uncertainty, and can lead to ground-breaking measures with unprecedented results.

Peterborough's ambitions go much further than just the installation of solar panels, the council is currently working with Viridor to install an energy from waste plant that will provide the council with electrical power to use and to sell. An anaerobic digester plant to produce green

energy and biogas is also being considered for a brownfield site in the city. Beyond that, the council is working with its partners to build a varied energy generation portfolio that will go well beyond merely reducing energy bills and produce revenue for the council for decades to come.

ENERGY PROJECTS AS A DRIVER FOR REGENERATION

These energy projects will support the economic well-being of Peterborough by generating sustainable cost savings and revenues for the council which can be used to protect front-line services and support the ambitions of the council. Those generating assets located in or near Peterborough will inject money into the local economy that would otherwise go to generating companies located elsewhere. Lower energy costs (whether through cheaper production costs or reductions in consumption through efficiency) will leave residents with greater disposable income. Since infrastructure is an essential component of regeneration, energy has a role to play in promoting asset-led transformation of the city.

SMART METERS, SMART GRIDS, SMART CITY

Peterborough aspires to be one of the first cities where smart meters are fully rolled out and is working with its partners to make this happen. The data from smart meters will help to shape behaviour and increase engagement with energy issues.

Technologies pertaining to demand side (consumption) are also becoming relevant. These include Active Demand Response (ADR), which affords greater control of a buildings' power and heat consumption remotely. In addition, combined with smart meters, ADR can create "micro grids" which allow better distribution of power hence negating the need for costly infrastructure upgrades of the national grid.

When all of the above are combined, the data generated from smart meters and grids creates a "data feedback loop" which facilitates increased efficiency of energy consumption and distribution allowing a city to become "smart". When combined with the concepts of "Big Data" the energy supply and demand profile of a city becomes a key management tool of the smart city of the future.

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