



Interreg
North Sea Region
ACCESS
European Regional Development Fund



Advancing Communities towards low-Carbon Energy Smart Systems



Context

The Challenge for West Suffolk

The Suffolk Climate Change Partnership has set an ambition for countywide carbon neutrality by 2030. This tight timeline requires the participation of all local actors, including businesses.

Objective of the ACCESS Pilot

The objective of the West Suffolk Council pilot was to engage businesses to trial energy efficiency and smart grid technology, achieving carbon reductions and energy bill savings. The long-term aim was to coordinate the upscaling of successful technology.

West Suffolk
Accelerating smart energy transitions for business

ACCESS

Total Budget: €4.540.864
ERDF Contribution: €2.270.432
Duration: 2019-2023

Description

As part of the Interreg North Sea Region project ACCESS, 4 frontrunner cities piloted innovative solutions for decarbonising local energy systems. ACCESS found that local authorities can lead the renewable transition in their area through support for grid balancing, energy trading, efficiency and other smart methods.



Lead partner



City partners



Knowledge partners



Project Management partner



Approach

P2P energy system set up locally

West Suffolk set up a peer-to-peer (P2P) energy system with partner UrbanChain, which runs a Virtual Power Plant across the UK. By matching generation profiles with consumption patterns on a half-hourly basis, UrbanChain makes renewable energy more profitable for generators and affordable for consumers. In April 2023, generation from West Suffolk's 12.4MW Toggam solar farm was added to the UrbanChain P2P system.

Efficiencies lead to £4,680 (€5,000+) savings per business

West Suffolk focused ACCESS funds on helping businesses achieve efficiency savings. The Council partnered with energy saving system provider GridDuck to help businesses detect wasteful uses of energy; one business has reduced their energy use by 27% whilst increasing their throughput.

With support from ACCESS, West Suffolk Council also invested in an acoustic imager which can detect leaks in air systems, leading to quick-win energy savings for businesses. A trial found average annual savings of £4,680 (more than €5,000) per business. The imager is available on free hire to businesses in the district.

ACCESS clients join other renewable schemes

Four businesses engaged by the council for ACCESS joined WSC's successful Solar for Business scheme, adding capacity of over 1MWp and a carbon saving of 89 tonnes in year one.

ACCESS enabled West Suffolk to provide businesses with smarter energy services

Pilot Impact

1,221
tonnes

Carbon emission reduction

Carbon savings have been achieved through PV installations, switching to peer-to-peer (P2P) electricity supply, and energy efficiency measures.

11,477
MWh

Local generation added to the P2P system

An estimated 11,441MWh from West Suffolk Council's Toggam Solar Farm was added to the P2P system from April 2023, combining with the 36MWh rooftop solar export that West Suffolk started supplying UrbanChain with in 2022.

587,350
£

Reduction in energy bills for businesses

One company is saving £85,521 annually from switching to UrbanChain's P2P supply, and manufacturing businesses have found average savings of £4,151 through detecting air leaks.



ACCESS allowed West Suffolk to validate easily replicable carbon and cost savings through efficiency services



ACCESS enabled West Suffolk to provide businesses with smart energy and efficiency services

Lessons Learned

Energy management requires dedicated personnel

Businesses need to dedicate time and energy to benefit from energy monitoring. Software does not provide solutions without data review, operational trials, and analysis. Practical actions then need to be supported by an engaged workforce.

Local Authorities need to carefully consider their role in advising other stakeholders

West Suffolk began taking an advisory role to businesses on their energy supply. However, volatility in the energy market increased the risk of giving advice. Instead, WSC focused on awareness-building and developing a competitive P2P option for businesses through UrbanChain.

West Suffolk saw real carbon and cost savings by leveraging their facilitator role in energy systems

West Suffolk leveraged their role as energy system facilitators to start conversations with stakeholders and crowdsource energy efficiency ideas. The acoustic imager hire scheme, part-funded through ACCESS, originated from a discussion with a local business group, which contributed to average energy savings of over £4,680 (over €5,000 per business).