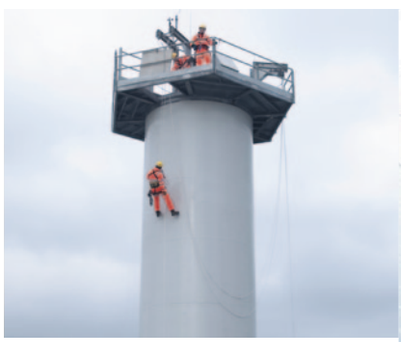
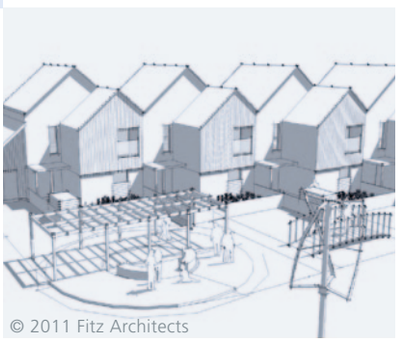
narec
development services ltd

National Renewable Energy Centre

Making the switch to low carbon in the built environment...





Making the switch to low carbon in the built environment…

"Durham County Council commissioned Narec to assess the suitability of installing 54 grid connected solar PV systems onto its public buildings; helping the Council to achieve its carbon reduction commitments and generate additional revenues. Narec's experience of working with microgeneration systems and energy master planning expertise is proving extremely valuable in helping Durham County Council to successfully implement low carbon and renewable energy schemes. The County Council has been delighted with the service that Narec has provided."

Maggie Bosanquet, Sustainability & Climate Change Team Leader,
Durham County Council

Microgeneration Training

Narec provides a comprehensive programme of practical training courses to address the skills gap for technicians to install, operate and maintain renewable energy systems. Our courses are designed for experienced heating engineers, plumbers and electricians to build on their existing expertise and further support the growth of the micro renewables industry.

Training courses, accredited by EAL, are mapped to national occupational standards, providing companies with high quality recognised qualifications. Addressing the skills gap is a key requirement of implementing energy master plans and regeneration activities. Narec is working with local authorities to ensure that they have the trained personnel to implement sustainable energy action plans and citywide climate change initiatives to deliver regeneration across their respective areas.

The Narec Training Centre is fitted with a range of renewable technologies and systems, allowing students to gain practical experience in a simulated environment. Bespoke training packages can be designed and delivered to meet individual and organisational training needs.

Course Delivery:

Narec's practical and industry led training courses support the skills and knowledge requirements for the low carbon and renewable energy sector:

- Accredited installer courses for solar thermal, air source heat pumps and solar PV
- Height safety training
- Market insight seminars, incorporating financial incentives such as the Feed-in Tariff (FiT) and Renewable Heat Incentive (RHI) Schemes

"GB Renewable Energy Ltd commissioned installer training for staff working on our exciting new microgeneration project with Northumberland County Council. We have been delighted with the training provided and will continue to work with Narec as a key strategic partner to fulfil the learning and development requirements of our renewable energy teams."

Tom Koerner, GB Renewable Energy Ltd

Distributed Energy

Areas of specialism:

- Technical Consultancy
- Energy Master Planning
- Regeneration Schemes
- Microgeneration Training

Distributed energy (also known as decentralised energy or embedded generation) is the supply of energy (electricity or heat) through a system of multiple small scale generators; with the energy produced generated close to the point of use. These energy systems tend to utilise renewable and low carbon technologies.

Driven by climate change, energy security, economic incentives and the elimination of fuel poverty, Narec advises clients, including local government, housing associations and project developers on how to incorporate the most suitable low carbon and renewable energy technologies into their regeneration programmes.

Narec brings hands-on experience of developing new technologies through practical installations. Our independent technical insight and in-depth knowledge of the support available for low carbon projects enables Narec to take a holistic approach to each project.

Specialists work on a wide range of low carbon and renewable energy projects, operating across the public and private sectors. We advise on the implementation of community heating schemes and building-integrated renewable energy systems.

We provide consultancy in energy master planning and citywide energy redevelopment. Training provides accreditation for installers of microgeneration and market-ready low carbon technologies.

"As a result of the studies carried out with Narec, our knowledge has broadened, helping NEA to redesign systems for future low cost, low maintenance, low carbon heating solutions in off-gas network homes."

National Energy Action (NEA)

"Narec is helping Northumberland County Council to deliver infrastructure redevelopment and regeneration scheme management. This work is expected to help towards the development of an Energy Service Company (ESCo).

Narec's Distributed Energy team has also provided us with essential financial and business modelling assistance in relation to the roll-out of large scale solar PV systems; helping the local authority to meet its carbon reduction commitments."

Frank Jordan, Head of Commercial and Property Services, Northumberland County Council

Project Examples:

- Technology feasibility studies for the installation of complete renewable energy systems
- Sustainable building design, build advice and guidance to planners and property developers
- Assessment of renewable energy systems for social housing projects
- R&D performance evaluation of low carbon and renewable energy technologies
- Registered Power Zone (RPZ) studies
- System performance investigations

Tees Valley Regeneration, Victoria Harbour project

Technical Consultancy

Our specialists will guide you through the wide ranging regulatory requirements for the design of innovative and sustainable developments.

Consultants have hands-on experience of testing and developing new devices in the laboratory and through practical installations. We are ideally placed to act as an independent consultant with an in-depth and up-to-date knowledge of the full range of low carbon and renewable energy technologies.

Narec is actively involved in a number of technology demonstration and consultancy projects. These include: the design of zero carbon buildings, feasibility studies for energy technology applications, retrofit of buildings and design of complete renewable energy systems.

Narec undertakes dynamic thermal modelling of buildings and performs simulation and data analysis of system configurations. The team also has capability in: smart metering systems, financial feasibility studies, energy strategies and complex procurement processes.

Energy Master Planning and Regeneration

To address the UK's 2016 zero carbon building regulation targets, our demonstration and technical consultancy projects focus on sustainable building design, improvements to thermal housing efficiency and retrofit of domestic properties.

Our experts use their in-depth knowledge of low carbon and renewable energy technology, government schemes and UK energy policy to develop commercially viable energy strategies and urban regeneration plans.

Narec provides strategic energy advice to both public and private sector organisations, working with local authorities as an energy master planner to ensure that they reduce carbon emissions and tackle fuel poverty through the most viable methods.

"Narec's knowledge and delivery of energy master planning and training is helping Newcastle City Council to drive forward the delivery of low carbon energy schemes. This co-ordinates activity across the local authority and city stakeholders, working towards achieving the national and European carbon reduction targets as part of the 2010 EU Covenant of Mayors Agreement."

Simon Johnson, Energy Services Manager,
Newcastle City Council

Project Examples:

- Social housing thermal efficiency improvements
- Retrofitting of domestic properties to reduce fuel poverty
- Financial and technical feasibility energy assessments
- Sustainable energy action plans for local authorities
- Project management of the design, procurement and implementation of sustainable energy systems
- Evaluation and implementation of sustainable community energy networks

Local Authority Support:

- Assisting in the delivery of the Covenant of Mayors carbon reduction targets and implementation of sustainable energy action plans
- Providing advice to local authorities on the 'Green Deal'
- Providing advice and guidance on the most suitable technologies for a specified application
- Providing detailed microgeneration installation advice
- Providing advice on relevant funding programmes, such as the Feed-in Tariff (FiT), Renewable Heat Incentive (RHI), Carbon Emissions Reduction Target (CERT) and Community Energy Saving Programme (CESP)
- Identifying and evaluating options to assist private and public organisations to reduce the financial impact of the Carbon Reduction Commitment (CRC)
- Project management and technical due diligence of housing energy improvement schemes
- Managing the transition to a strategic energy master planning approach
- Developing appropriate policies and advice on sustainable energy

Advancing Renewable Energy

www.narec.co.uk

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