

# CASE STUDY

# SOCIAL HOUSING COMMUNAL HEATING - FEASIBILITY STUDY

## BESPOKE DESIGN

Each installation is designed to meet specific client requirements with full computer simulation used to prove all designs.

## ENERGY EFFICIENCY

As approved Carbon Trust Consultants, we will ensure that the system energy performance is optimised to produce lower operational costs.

## PROJECT CDM AND MANAGEMENT

Our engineers and consultants will ensure that all aspects of the design and installation are fully compliant and all relevant permissions and safety requirements are fully adhered to.

## MCS ACCREDITED

ESP is an accredited installer, approved under the Government's Micro-generation Certification Scheme.

## CARBON TRUST

ESP are approved Carbon Trust Energy and Biomass Consultants.



- Feasibility assessment for communal heating installation
- Evaluation of renewable energy technologies including biomass and micro-CHP
- Dynamic thermal modelling of buildings using industry standard IES software
- Calculation of income from Feed in Tariff and Renewable Heat Incentive



A feasibility assessment evaluating the installation of communal heating at several blocks of social housing in Newcastle Upon Tyne was commissioned on behalf of Your Homes Newcastle. Funded by Community Energy Solutions, a not-for-profit organisation based in the North East, the study considered the viability of a communal heating system heating via biomass and / or CHP.

ESP was asked by Community Energy Solutions to determine energy consumption profiles for the site through a combination of energy audits and dynamic thermal modelling. The technical and financial viability of a communal / district heating scheme was then assessed, including the installation of a new biomass boiler and / or CHP engine.

Financial analysis was conducted in order to estimate lifecycle project costs, incorporating revenue-generating opportunities from the Feed in Tariff and Renewable Heat Incentive and savings associated with the Climate Change Levy and Carbon Reduction Commitment.