

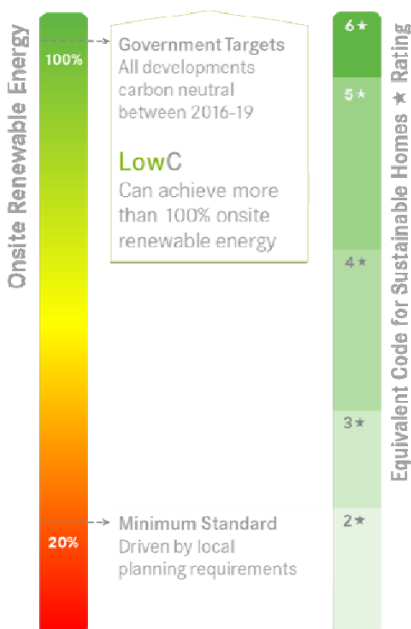
LowC making low carbon communities happen

Renewable CHP Solutions from LowC



Improved Energy Efficiency:

Generating heat and power in one process enables renewable CHP units reach up to 90% efficiency compared with just 30-40% for conventional power generation.



Renewable CHP: LowC delivers solutions that far exceed requirements for 10-20% renewable energy generated onsite.

Reduce Energy Costs / Increase Efficiency / Maximise Productivity

Combined heat and power (CHP) systems from LowC can deliver significant energy and cost savings for new or existing developments.

Installing a CHP system in new or existing buildings generates heat and electricity onsite, making optimum use of the energy within the fuel and resulting in electricity that is less carbon intensive than grid electricity.

LowC can provide energy centres for a wide range of uses, with fully-warranted pure plant oil (PPO) CHP systems. Based on proven renewable CHP technologies, the solutions delivered by LowC bring benefits such as:

- **Reduced energy consumption:** CHP units are up to 90% efficient, compared to only 30-40% efficiency for conventional power stations
- **Security of energy supply:** Equipment is specifically designed to be able to run on renewable fuel sources such as Pure Plant Oil (PPO), used cooking oils and fully renewable biodiesel, minimising reliance on fossil fuels
- **Profitability:** Excess electricity can be sold to the grid and is eligible for Renewable Obligation Certificates (ROCs), providing excellent returns and short payback periods on capital investment
- **Compliance with planning regulations:** By far exceeding planning requirements for 10-20% onsite renewable energy (70% is achievable with Renewable CHP)
- **Market Differentiator:** Cost-effectively achieving high renewable energy content increases the appeal of developments in increasingly competitive property markets, as well as increasing community buy-in
- **Simple maintenance:** Systems based on tried and tested German-made technology
- **Control:** Sophisticated web-based remote monitoring systems, ensure full control and optimal performance is maintained at all times
- **Versatility:** LowC can supply renewable CHP units in a wide range of sizes, from 8kW up to 3.2MW, to meet the needs of most projects. Whether the requirements are for standalone, self-contained energy plants or for flexible modules that can integrate into existing systems, there is a range of individual or multifunctional systems available.

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Renewable Energy Supply:

Pure plant oil from pressed and filtered oilseed rape, sourced from a fully accredited UK grower and supplier.

Where is CHP most appropriate?

In order to maximise returns on the capital investment in CHP, there needs to be a use for the heat and power generated.

This makes CHP an ideal solution where there is a steady demand, for example:

- community heating systems
- schools
- hospitals
- hotels
- agricultural buildings
- sports centres
- breweries

In buildings where cooling is required, such as **offices, shopping centres, warehouses and airports**, CHP units can also be coupled to an absorption chiller to provide cool air.

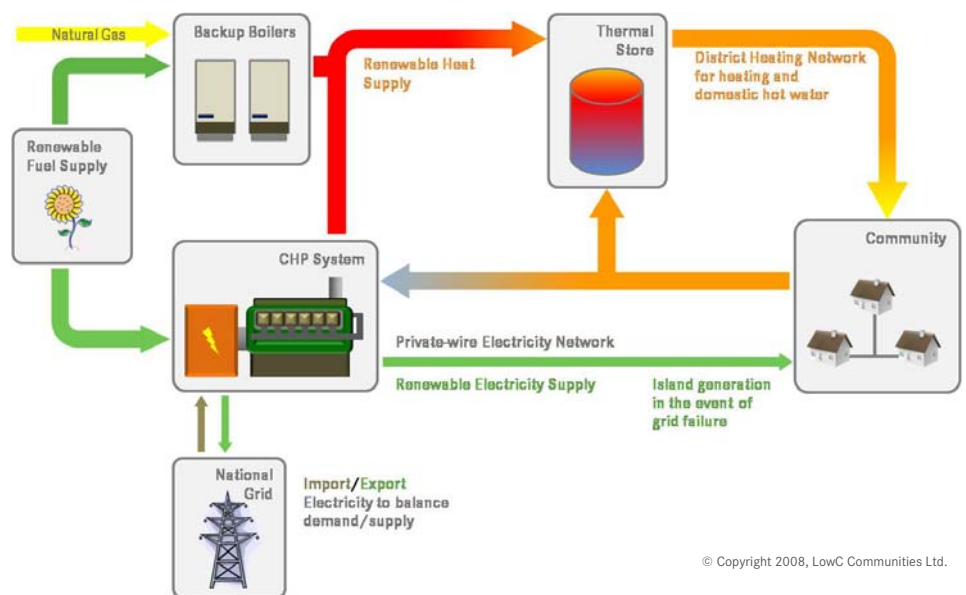
Sustainable Fuel Supply

LowC researches fuel supplies and production methods to ensure that fuels we specify come from sustainable sources which minimise environmental impacts during growth and processing, such as rapeseed oil. Pure plant oils from rapeseed can be used in our equipment without modification.

LowC have an exclusive partnership with Nottinghamshire fuel providers, Phoenix Fuels, to ensure a continuous supply of sustainable fuels for our clients. The fuels LowC specify are all grown in the UK, helping to minimise environmental issues such as carbon emissions from transport and deforestation which are traditionally associated with other biofuels.

Cost-effective Community Energy Generation

Through several Building Schools for the Future (BSF) projects, using the strategy illustrated below, LowC has demonstrated that Biofuel powered CHP can be cost-effective.



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LowC solutions are fully guaranteed

LowC operates long-term maintenance services as well as managing financing, insurance, contracting, oil supply and storage. In addition, LowC also provides technical project planning and implementation as well as final commissioning of the plant.

For more information about how you can benefit from CHP please contact Richard Griffin at rg@lowc.co.uk or call the number below.