



Gas is part of our green future

Natural gas will remain an essential part of the GB energy mix for many years to come. It is not realistic to expect GB homes and businesses to rely solely on green energy (i.e. stop using fossil fuels for cooking, heating and hot water) before 2050. Even when an acceptable degree of energy sustainability has been achieved, it is likely that fossil fuels will still be required to support renewable sources of electricity and gas in the event of supply shortfalls – for example equipment failure or unfavourable weather conditions. Natural gas is the least polluting fossil fuel, is abundant, recoverable and transportable globally. Advances in technology continue to further reduce both consumption and combustion emissions. The flexibility of gas means it can easily support emerging technologies in the home, such as solar PV, solar thermal, air/ground heat pumps etc.

Facts

- The Industrial Emissions Directive (IED) 2015 “cliff edge” means 14-18GW mainly coal capacity will close plus a potential for a further 18GW to be affected (older CCGTs), which is up to 40% of current installed capacity.
- Replacement plant will be gas; new gas fired plant post 2015 will be low polluting <50 mg/nm³ NO_x.
- Drive towards Combined Heat and Power – modern CHP can use up to 90% of the primary energy content of gas. There should be support for large scale plant, thereby increasing the efficiency of gas fired power generation, as well as micro-CHP for domestic uses.
- Around 60% of CO₂ emissions in industrialised countries come from road transport. Natural Gas produces about 20% lower greenhouse gas emissions than petrol engine equivalents with much lower CO and NO_x. Compared to diesel, CO₂ emissions remains about the same but with 80%+ reduction in particulates.
- While the Gas Forum supports the large roll out of wind generation, it is axiomatic that when the wind is not blowing the only large scale low CO₂ source flexible generation will be gas fired power stations.

Key messages

- Relative to other sources of flexibility in the electricity generation market, gas could be considered green. Gas has an essential role to play in delivering low/zero carbon economy, it is the cleanest of all fossil fuels and is abundant.
- Bio-methane offers unique opportunity to decarbonise gas. A recent study by National Grid concluded bio-methane could provide up to 6% of UK natural gas market (15% of total domestic demand) under a conservative scenario, and potentially up to 18% at stretch (48% of domestic demand) if new process technology proves successful and under ideal market conditions.

- Demand side initiatives such as CRC and Smart Metering will reduce the use of gas in retail markets
- The Gas Forum fully supports the role of CCS in decarbonising gas fired generation. However, use of “redundant” NTS pipes must not unduly jeopardise existing natural gas transportation capability – could lead to energy shortages and associated price spikes.
- Biomethane simply turns organic waste into usable gas and organic fertiliser. Limited investment required to establish an Anaerobic Digestion (AD) facility. It is a simple, proven technology and helps to solve the growing waste disposal problem faced by society.
- It is essential to get Renewable Heat Incentive right to encourage development and uptake of new technology.
- The RHI must be applied equitably to all fossil fuel suppliers as proposed in the RHI consultation and not just target gas (which is least polluting fossil fuel).