CLEAN ENERGY MEASURES IN BUILDINGS ARE CHEAPER

Low carbon or renewable production from energy efficient buildings is a cheaper way to meet our energy needs

SUSTAINABLE ENERGY ASSOCIATION

Energy saving measures

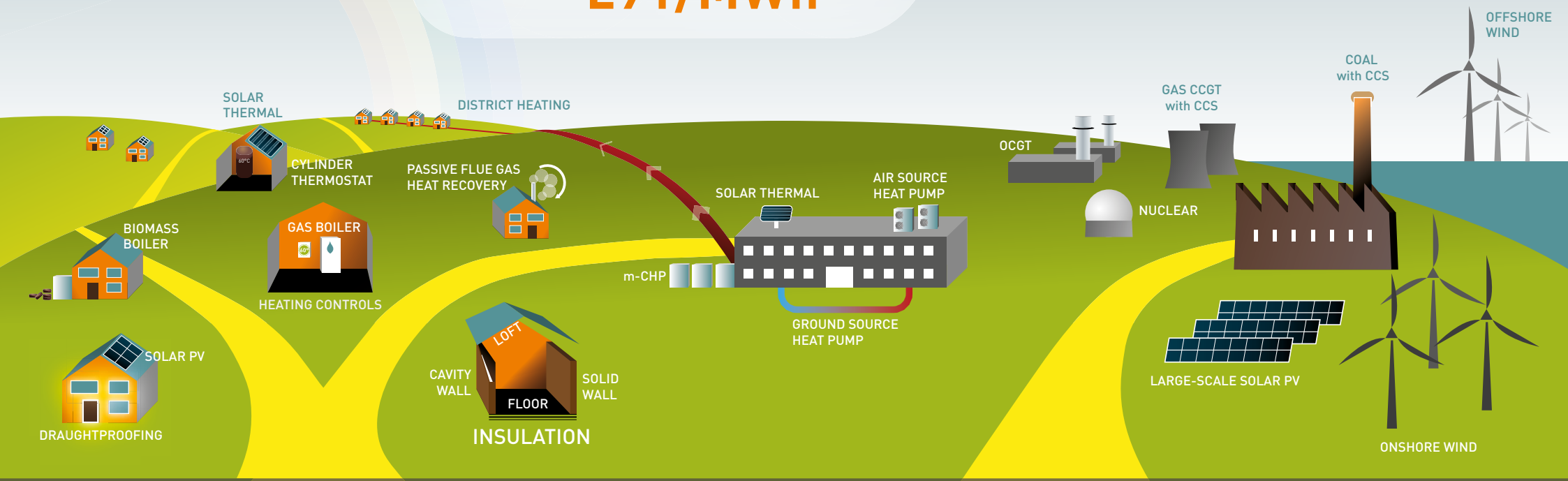
Average cost **-£9/MWh**

Low carbon and renewable production in buildings

Average cost **£91/MWh**

Large-scale power generation

Average cost **£108/MWh**



Join the SEA in promoting an affordable, secure, low carbon energy future for the UK

Go to www.sustainableenergyassociation.com for more information

Why should we focus our efforts on energy measures in buildings?

Depicted overleaf is a summarised analysis of the average cost per MWh of a range of measures, each of which plays a role in meeting our energy needs. These can be captured in three broad groups; energy saving measures, low carbon and renewable production in buildings and large-scale power generation.

The analysis demonstrates that "demand-side" measures such as energy saving and low carbon or renewable production in buildings are a cheaper way of meeting our energy needs.

Currently, we are not investing enough in these demand-side measures. Policy makers generally look first to the supply-side – principally large scale power generation – to meet our energy needs. There is a huge opportunity to secure a clean, affordable energy future at much lower cost for the country overall through a step change in investment on the demand-side. Doing so will mean warmer, more comfortable, more affordable homes and buildings and cleaner, more secure energy for the people and businesses of Britain.

The Sustainable Energy Association will be campaigning on behalf of its members for joined up policy support that integrates energy efficiency and low carbon or renewable production in our homes and businesses.

SO WHAT DOES THIS MEAN FOR ME?

INDUSTRY

Those with a business interest in energy saving, low carbon or renewable production in buildings should get in touch with the SEA to learn how our work to shape the future of energy policy can help your business succeed. Please look at our membership options at www.sustainableenergyassociation.com or call 0121 709 7740 to join or find out more.

POLITICIANS

Voters are increasingly concerned about their energy bills. As an MP or Councillor, your support of our call for a greater focus of public policy on demand-side measures is important. This will improve the quality of life of your constituents and particularly the affordability of energy.

CONSUMERS

For consumers you can reduce your bills, make your home warmer and more comfortable and get more out of your taxes. Our members have a full range of measures which will permanently reduce your energy bills; a selection of these measures can be available at very low cost, and for some consumers free of charge through government incentive schemes.

SUSTAINABLE ENERGY ASSOCIATION

What is the Sustainable Energy Association?

The Sustainable Energy Association is a member based industry body. It develops and promotes innovative policy solutions that link building-level technologies with the wider energy system to achieve a low carbon, secure and affordable energy future for the UK. This brings benefits to consumers and commercial growth for businesses in the sector.

Membership comprises a wide range of organisations that are fully engaged in developing policy positions. Member-led working groups and a governing body of members ensure that we discuss and authorise policy positions that have real commercial impacts.

GET IN TOUCH

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HOW HAVE THE AVERAGE FIGURES USED BEEN WORKED OUT?

Levelised costs represent discounted lifetime capital and operating costs of saving and producing energy from different measures projected in 2019 and expressed in £ per MWh.

These figures have been averaged for each of the three categories – energy saving, domestic and non-domestic low carbon and renewable energy production and large-scale power generation to evaluate cost-effectiveness of options.

TECHNOLOGY BREAKDOWN

ENERGY SAVING MEASURES — AVERAGE -£9/MWh

Measure	£/MWh
Cavity Wall - Hard to Treat	-£10
Cylinder Thermostat	-£49
Double Glazing (old single to A)	£59
Draughtproofing	-£48
Cavity Wall Insulation	-£46
Flat roof insulation	-£32
Floor Insulation	-£33
Flue Gas Heat Recovery (condensing combi boiler)	£13
Heating Controls	£5
Loft Insulation	-£17
Solid Wall (external)	£49
Solid Wall (internal)	-£1

Levelised costs

LOW CARBON AND RENEWABLE ENERGY PRODUCTION IN BUILDINGS — AVERAGE £91/MWh

Technology	£/mWh
Air to water heat pump	£98
Air to water heat pump (Non-domestic)	£89
Biomass	£81
Biomass (Non-domestic)	£73
Condensing Gas Boiler	£75
District Heating	£22
Fuel Cell (base load)	£98
Ground source heat pump	£115
Ground source heat pump (Non-domestic)	£101
Solar PV	£26
Solar Thermal	£183
Solar Thermal (Non-domestic)	£124
Stirling Engine (heat led)	£104

Levelised costs

LARGE-SCALE POWER GENERATION — AVERAGE £108/MWh

Technology	£/MWh
ASC with CCS	£92
Coal with CCS	£109
Gas CCGT with CCS	£95
Large Scale Solar PV	£123
Nuclear	£80
OCGT	£155
Offshore Wind Round 2	£107
Offshore Wind Round 3	£114
Onshore Wind	£99

Levelised costs