

DECENTRALIZED ENERGY CREATION

Climate change has now become the problem the world cannot ignore. Addressing future global warming, and adapting to it now, will require making fundamental changes to the way we live. How we produce, distribute and use energy is key to this.

Decentralized energy allows the financial costs and energy losses associated with the long-distance national transmission system to be reduced and savings passed on to consumers. Bringing energy production closer to people's lives helps promote energy efficiency. Security of supply can be improved and power blackouts reduced.

Electricity production in the UK is responsible for a third of carbon emissions. This is the UK's single greatest contribution to climate change. In the existing system, electricity is produced in a small number of large power stations, and then distributed to where it is needed.

Because the power stations are generally far from centres of demand, there is an enormous amount of energy lost in distributing it. Losses occur as the electricity travels along the wires of the transmission and distribution systems.

In total, the energy wasted at the power station and on the wires is equal to the entire water and space heating demands of all buildings in the UK – industrial, commercial, public and domestic.



E.on's coal-fired Ratcliffe-on-Soar power station in Nottinghamshire. It is a movement away from this form of energy creation that is needed.

In a decentralised energy system, electricity would be generated close to or at the point of use. Buildings, instead of being passive consumers of energy, would become power stations, constituent parts of local energy networks. They would have solar photovoltaic panels, solar water heaters, micro wind turbines, heat pumps for extracting energy from the earth. They might also be linked to commercial or domestic operated combined heat and power systems.



The installations of small scale renewable energy technologies such as solar panels are essential in driving decentralized energy creation.

Decentralizing energy offers a compelling alternative vision, in which we can both combat climate change and roll back the nuclear threat. To give just one example of the potential, if half the houses in the UK were provided with domestic combined heat and power units, which is technically feasible, then the electricity generated would replace the entire nuclear capacity we have today.

Source: <http://www.globalsiteplans.com/environmental-design/decentralised-energy-creation-is-it-the-way-forward/>