



ENERGY

Background

EN100 Energy is fundamental to life and to the economy. Energy is neither created nor destroyed, but flows from "higher" to "lower" forms irreversibly. All living things, including people, survive by exploiting this flow.

EN101 Our world is bathed in energy radiated from the sun, but is also provided with stocks of fossil fuels in which energy is locked up. Our economic development has taken us away from using sun, wind and water power to a technology dependent on dwindling supplies of fossil fuels. Fossil fuels represent natural capital. Industrialism has been committing the fundamental economic error of using capital as income. As E.F. Schumacher has pointed out, the wealth generated from the use of capital energy resources must be directed towards making ourselves independent of that type of resource. (See EN-500)

EN102 Our use of fossil fuels increases atmospheric pollutants and greenhouse gases, leading to forest damage from acid rain, impacting on health and causing Climate Change.

EN103 An important step in addressing this problem is for us to reduce our consumption of energy and, in the long run, to reorganise our economy and built environment.

EN104 There will nevertheless continue to be a need for energy supply.

EN105 The Green Party is fundamentally opposed to nuclear energy, which we consider to be expensive and dangerous. The technology is not carbon neutral, and being reliant on uranium it is not renewable. We consider its use, moreover, to be elitist and undemocratic. There is so far no safe way of disposing of nuclear waste. To a degree unequalled by even the worst of other dangerous industries, the costs and dangers of nuclear energy and its waste will be passed on to future generations long after any benefits have been exhausted.

EN106 Peak Oil

[1] Fossil fuels are finite resources and their global rate of production will inevitably reach a peak and then decline (as suggested in NR310).

[2] In the case of oil and natural gas, the UK rate of production has peaked and the global rate of production will peak soon.

[3] The consequences of the declining rate of production of fossil fuels, or 'Peak Oil' and 'Peak Gas' as it is also known, will fundamentally affect the nation's economy and society:

- a. International competition for increasingly scarce resources will lead to increased conflict and deteriorating cooperation between nations.
- b. Increasing prices in the domestic market will lead to increasing levels of transport fuel poverty, heating fuel

poverty, and food poverty in our society.

- c. Declining availability of petrol and diesel fuel will have a serious effect on large swathes of domestic economic activity.
- d. Declining natural gas supplies will lead to electricity shortages unless a vigorous programme of diverse alternative sources of electricity generation is implemented.

[4] To minimise the worst effects of Peak Oil on our economy and society, it is crucial that immediate steps are taken to reduce our dependence on oil and natural gas, through reducing our energy consumption, improved energy efficiency and development of renewable sources of energy.

Long-term Objectives

EN200 A Green society would reduce its demand for energy to a sustainable minimum, and obtain that energy from renewable sources.

EN201 Energy would be generated, stored and distributed as close to the point of use as practicable, with maximum local control.

Short-term Objectives

EN300 To reduce demand for fossil fuels as rapidly as possible by inducing industry, householders and the public sector to invest in energy conservation.

EN301 To reduce drastically and, if possible, eliminate the pollution caused by burning coal and oil.

EN302 To promote full use of currently available renewable energy sources for heat, electricity and transport, and provide the necessary support for the relevant markets and industries to grow.

Policies

Organisation and Accountability

EN400 The distribution mains for electricity and gas would be brought into, or kept in, a fully accountable public sector. Energy production would be a mixture of public and private enterprise, with all producers paid on the same terms.

EN401 The Government will provide free professional advisory services to advise on appropriate energy sources, efficiency and conservation measures.

EN402 The Government will provide public advisory services, responsible for maintaining and publicising authoritative information on all aspects of energy sources, efficiency and conservation measures.

EN403 A National Energy Index will be introduced to show per capita consumption from renewable and non-renewable sources.

EN404 Dynamic pricing of electricity tariffs will help balance demand with renewable energy supply. To enable this we will introduce a system of electronic communication through the electricity grid to supply pricing data to 'intelligent meters'.

Conservation

EN500 The Green Party's system of tradable carbon quotas (see CC280) will be the main driver for individuals and businesses to reduce their consumption of energy from fossil fuels.

EN501 The Resources Tax (see EC780-86 and [NR423](#)) would be applied to fossil fuels, making them relatively more expensive. The funds so raised would be used to subsidise energy conservation and renewable energy programmes.

EN502 To protect low-income householders from the worst effects of higher fuel prices, standing charges would be abolished, and tariffs would be tilted in favour of smaller consumers.

EN503 Building Regulations will be set to require excellent energy standards on a points-based system which will cover embodied energy of building materials, energy used in construction, energy consumption in use, on-site energy generation and use of heat distribution networks.

EN504 Heat distribution networks to be planned and facilitated by Local Authorities, enabling Combined Heat and Power stations (CHP) to under-cut electricity generated at "power-only" thermal stations, and to facilitate the use of waste heat from industry and sewage and the efficient exploitation of solar and other thermal energy sources.

EN505 Building Regulations for energy standards to be applied to existing as well as new buildings, except where this would compromise listed buildings; Landlords will have a responsibility to ensure that their dwellings be brought into line with prevailing

energy standards at their own expense.

EN506 All sellers of buildings to provide a statement of the energy performance data for those buildings. Publication of energy and water use performance data on all appliances and machines to be made mandatory.

EN507 Energy efficiency standards to be enforced for all domestic and industrial appliances. Electrical appliances such as refrigerators will be required to incorporate dynamic demand technology where appropriate.

EN508 The Government to define best energy practice for all industrial processes and implement the necessary measures to encourage or enforce minimum energy use per unit of industrial output in all sectors.

EN509 The Government to define best energy practice in agriculture, including the energy input of agro-chemicals, and to implement measures to encourage or enforce minimum energy use per unit of agricultural output.

EN510 The Government to encourage reduction in energy consumption in transport, in liaison with relevant regional and local agencies. Action to include: measures to penalise the use of large engines in cars; measures to discourage private and encourage public transport; measures to encourage non-motorised means of movement; measures to institute land-use planning arrangements that favour public over private modes and reduce the total need for motorised transport. (see TR300s)

EN511 We encourage the teaching of energy conservation in schools. We should enable teach-

ers to attend courses in the principles of energy conservation on an 'in service' basis.

Nuclear Power

EN600 A deadline for phasing out nuclear power would be set when we come to office and all UK nuclear power plants phased out within this date.

EN601 All nuclear power stations and associated facilities for the production and reprocessing of nuclear fuel and the storage and disposal of radioactive waste shall be in public ownership to ensure the safest possible closure, decommissioning and long-term management of waste. Any such facilities found to be in private ownership will be returned to the public sector without compensation. Reprocessing at Sellafield and other installations will be ended as soon as possible.

EN602 No more uranium would be imported into the UK and no licences would be granted for the mining of uranium in the UK.

EN603 The unpredictable effects of climate change demand that the safety of UK nuclear power stations and other sites handling and processing radioactive materials require urgent review. Many nuclear plants are in vulnerable coastal locations which face flooding by a combination of severe weather, rising sea levels and spring tides. An action plan to protect these sites would be implemented and the most vulnerable nuclear sites would be closed down and decommissioned at the earliest practicable date.

EN604 It appears unlikely that research into nuclear fusion will bear fruit in the timescales needed to address Climate Change and

Peak Oil, so in the short to medium term all research funding will be redirected for more immediate benefit (see EN805)

Existing Energy Sources

EN700 Any new fossil-fuelled power stations to be built in urban areas, where the waste heat could be used in a Combined Heat and Power system.

EN701 All major fuel users to be required to fit equipment which reduces pollution.

EN702 Coal and oil supplies to be graded for polluting effect, the cleanest being routed to small users not controlled under EN701.

EN703 Incentives to be given for running vehicles on fuels producing little or no harmful emissions such as LPG.

EN704 If sufficient supplies are available, an increased role to be sought for fuels producing less carbon dioxide, particularly natural gas.

Renewables

EN800 To support and develop the renewables industry we will adopt a simple framework of guaranteed prices for exported renewable energy: renewable energy feed-in tariffs (REFITs) paying premium rates for large and small producers of renewable electricity, with different rates for technologies at different levels of maturity. Onshore wind will continue to be supported with a tariff that matches or exceeds any pre-existing Government subsidy.

EN801 An ambitious programme of Government and Local Authority investment in publicly-owned renewable energy projects

to be introduced immediately, with an initial focus on onshore and offshore wind projects.

EN802 Bureaucratic interference with people seeking to use renewable sources of energy to be reduced to a minimum.

EN803 Support will be given to the relevant industries and markets to meet the rapidly growing demand for renewable energy systems.

EN804 We will rapidly expand vocational training courses aimed at creating a work force for the emerging energy-related industries.

EN805 Research and development funding will be made available for the development of renewable energy technologies. High priority will be given to tidal and wave power, concentrated solar power, bio-energy carbon capture and storage, electric transport, energy storage and dynamic demand technologies.

EN806 In order to utilize renewable energy peaks and manage constantly varying electricity demand, dynamic demand and load balancing technologies will be developed, including the charging of battery-powered vehicles; charging large scale flow batteries; electric heating of district heating water; Combined Heat and Power and heat pumps.

EN807 Renewable electricity generators that can viably adjust their output on demand and are less than 50MWe in capacity, such as Combined Heat and Power stations, will receive a higher rate of REFIT tariff for electricity they generate during peak demand periods.

EN808 Additional emphasis will be placed on the benefits of renewable energy projects that demonstrate significant new innovation towards achieving greater efficiency and cost-effectiveness, particularly those pioneering under-utilised energy sources such as biomass, wave power, tidal power and solar power.

EN809 Planning guidance will be strengthened with a presumption in favour of renewable energy projects and made more specific, to ensure better consistency in local decision making. Comprehensive training and support will be provided for local councillors and planning officers to better assess renewable energy projects. The number of government planning inspectors will be increased to ensure planning appeals can be held promptly. Planning permission will no longer be required for solar panels on buildings, except for listed buildings.

EN810 Biogas generation from modern anaerobic digestion plants (incorporating first stage hydrolysis steps where appropriate to optimise efficiency) to be utilised as widely as possible, with heat recovery where possible. (see NR413)

EN811 The Green Party opposes the mass incineration of municipal, commercial and industrial waste. (see NR414-NR416)

EN812 Energy will be produced by recovering methane from existing landfill sites. Encouragement will be given to energy recovery from the burning of energy crops, appropriate grades of agricultural waste and untreated waste timber in small scale plants on farms, industrial sites or in district heating networks. Energy recovery plants will be required to operate to high levels of effi-

ciency, which will usually entail matching the plants with a suitable heat load.

EN813 We will significantly increase the amount of land used for forestry (see FY200-203) and timber will become an important energy crop.

EN814 We believe it is appropriate to use the tidal energy potential from estuaries such as the Severn estuary, subject to satisfactory sustainability and environmental impact assessments. In particular we support the development of tidal lagoons and tidal stream turbines as a means of generating clean renewable energy, but reject any proposal for a single continuous barrage across the Severn estuary.

EN815 There should be a presumption that wind energy schemes, whether small or large, and whether onshore or offshore, should go ahead unless there are overriding and substantial dangers to public health or safety or to wildlife, or it is in a nationally designated scenic area. Local ownership of wind power, by farmers and cooperatives should be encouraged..

EN816 Renewable energy developers to provide a fund for the local community. The fund would primarily subsidise the energy bills of local residents and businesses, on a sliding scale according to proximity, and any excess would go into community projects of the local Councils' choosing. The Government to be responsible for setting the levels of the funds and Local Authorities will be responsible for managing the distribution.

The following additional policy statements can be found in the Green Party Record of Policy Statements (RoPS):

- Phasing Out Nuclear Power (April 1990)
- Against Energy from Waste Incineration Plants (Autumn 2001)
- Nuclear Bankruptcy (Autumn 2002)
- Bankrupt Nuclear Industry (Autumn 2002)
- Liabilities Management Agency (Autumn 2002)
- Bankruptcy of Government's Renewable Energy Programme (Autumn 2003)
- Councillors and Sustainable Energy Strategies (Autumn 2003)
- Tidal Lagoons in Swansea Bay (Spring 2007)