

Energy

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1. Accept the principle that our CO₂ emissions must be cut by 25–40% by 2020 as the first step in de-carbonising our energy supply system, ideally by 2030.
2. Set ambitious targets for the fraction of our electricity to be supplied by a mix of renewable energy technologies: 30% by 2020, ideally 100% by 2030.
3. Regulate to require the energy efficiency of appliances, vehicle fleets, industrial equipment and buildings to reflect world's best practice.
4. Mandate solar hot water for all dwellings, except where solar access is limited, in which cases gas or heat pumps would be acceptable.
5. Phase out all the present subsidies of fossil fuel supply and use, and re-direct the funds to investing in a sustainable energy future.
6. Introduce an emissions trading scheme and give it the capacity to provide financial incentives for low-carbon approaches by introducing science-based national emissions targets.
7. Re-direct resources to develop effective active transport systems for all major urban areas.
8. Develop planning principles to produce compact urban villages, with everyday needs within easy reach and those centres connected by good public transport.
9. Ensure that governments walk the talk by setting the highest standards for public buildings, as well as energy and other resource use by government and public authorities.
10. Involve the whole community in a process of social learning to develop political support for a clean energy future.

Introduction: the challenges

Economic development in the 20th century was fuelled by plentiful cheap energy, but it has been clear for decades that the energy outlook is now different (Lowe 1977). There is disagreement about the peak of world oil production, but the evidence suggests it has already passed (Hallett and Wright 2011). The scientific basis for 'peak oil' was established more than 50 years ago (Hubbert 1956). The energy source that now powers almost all our transport will certainly become more expensive and supply interruptions are possible. The near-term future will require a new approach to transport. Public subsidies have encouraged road freight, rather than rail and coastal shipping, while inept urban planning has