Energy Policy

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Spokesperson: Gareth Hughes MP

Definitions

Demand Side – refers to the ways energy is used rather than the ways it is produced. Demand side management can lead to greater energy efficiency and conservation, and reduce peak loads, greenhouse gas emissions and energy bills.

Distributed Generation – refers to the creation of a network of smaller generation facilities and includes the building of smaller generation plants close to demand.

Energy Services – means the heat, light, motive power and electronic activity derived from the use of the energy, whatever its source.

Renewable Energy – means energy derived from sources which occur naturally and which replenish naturally, used at a rate which allows the source to replenish and on a scale which minimises adverse effects on the environment.

Vision

The Green Party envisions a New Zealand in which:

• All reasonable needs for energy services are reliably and affordably met from renewable energy.
• There is much smarter use of energy, which would allow the scale and impact of energy production and consumption to be reduced in line with ecological sustainability.
• All New Zealanders are involved in decisions about energy and take responsibility for using it sustainably.

Key Principles

1. The scale and rate of energy use are key elements that affect the sustainability of energy supply, and both are subject to ecological limits.
2. Due to both resource depletion and climate change, we need to progressively reduce our use of fossil fuels to a very low level, eventually meeting our energy needs with renewable energy.
3. To avoid social, economic, and environmental disruption, the reduction of fossil fuel use needs to be planned, the burden shared fairly, and replacement energy sources need to have a low environmental impact.
4. Iwi and hapū rights under Te Tiriti o Waitangi to manage and develop their resources must be recognised and supported in the transition to a sustainable energy future.
5. As far as practical, energy demand-side optimisation, efficiency and conservation should be prioritised before new supply-side investment.
6. The electricity industry, including generation, transmission, distribution and retail, should be governed and operated with the primary objective of enabling
all New Zealanders to meet their reasonable needs for energy services while
minimising environmental impacts. The industry should offer choices between
electricity and other fuels, and also enable demand side management to reduce
energy bills.

7. Energy services, such as warm houses, food production and supply,
transportation, and industrial processes, must be provided using much less
energy than now, through both improvements in efficiency and changes in
behaviour. This is necessary to minimise environmental impacts and ensure the
ongoing availability of energy services.

8. Energy industry planning should give consideration to future macro-level
opportunities and risks, such as those due to climate change, planned irrigation
schemes, electric vehicle usage, distributed generation and population growth.
A holistic response will be critical and planning, regulatory and market decision-
making must be coordinated to deliver sustainable energy services.

9. Individuals, communities and businesses need to be empowered to make
decisions about energy and its use that improve affordability and enhance
sustainability.

Specific Policy Points

1. Responding to climate change and the end of cheap oil

Along with our [Climate Change](#) policy, all policies in this document will contribute to
reducing greenhouse gas emissions and assisting in the transition away from our
current heavy reliance on oil.

A. Deep Sea Drilling, Hydraulic Fracturing (‘Fracking’), and Related
Extractive Activities

The increasing world wide demand for fossil fuels is leading to more extreme
measures of fossil fuel extraction, including deep sea drilling and hydraulic fracturing.
Both methods have significant environmental risks, and our capacity for dealing with
even a small oil spill is very limited. The Green Party will:

1. Prohibit the following activities:
   a. All new deep sea drilling for fossil fuels within territorial waters, the
      Exclusive Economic Zone and the continental shelf (with deep sea
defined as below 200 metres).
   b. Fossil fuel exploration and exploitation in the Ross Sea region.
   c. Underground coal gasification.
   d. Exploitation of gas hydrates (e.g. methane hydrates).
   e. All new coal seam gas projects.

2. Place a moratorium on hydraulic fracturing for oil and gas within territorial New
   Zealand, the Exclusive Economic Zone and the continental shelf until it is
   proven safe.

3. Stop the expansion of the oil and gas industry to new areas of New
   Zealand by amending the Crown Minerals Act to stipulate an end to all applications for new
   petroleum prospecting and exploration permits.

4. Under existing petroleum exploration permits, only allow new onshore and
   shallow offshore wells to be drilled if the oil and gas from them can be burned
   while staying within a nationally set carbon budget (see our [Climate Change](#)
policy).

5. Strengthen the regulatory regime for the oil and gas sector, as recommended
   by the Parliamentary Commissioner for Environment.
B. Transitioning away from fossil fuels

1. Support the development of a fully renewable electricity generation system, except for emergency supply, by 2030.

2. Develop a national transition strategy which includes:
   a. Maintaining energy security while phasing out the use of fossil fuels;
   b. Examining the role of direct electric power, biofuels, and hydrogen from renewable energy for public transport and transport services;
   c. Assessing the impacts of peak oil and climate change mitigation on transport, our trading relationships and main industries, and an investigation of the role of new technologies in these industries;
   d. A comprehensive public information programme to enable broad-based public participation in the reduction of energy consumption and transition away from a dependence on fossil fuels;
   e. Developing an international strategy to:
      i) Share technology and expertise with smaller Pacific nations; and
      ii) Cooperate with other nations and develop an international agreement on sharing the remaining oil, to reduce conflict over its allocation.

3. Fund research and development of sustainable energy technologies where New Zealand has a natural advantage, such as wind (including for shipping), and wave, current and tidal power systems.

4. Significantly reduce fossil fuel use in transportation through sustainable urban planning and design, transitioning to low emission vehicles and fuels, and facilitating active modes (walking and cycling), integrated public transport, rail transport (including freight), and coastal shipping (see our Transport policy).

C. Price signal to promote sustainable energy generation and use

The Green Party will:

1. Transition from an ineffective Emissions Trading Scheme to an effective emissions levy that provides a greater degree of certainty over the price on greenhouse gas emissions, creates improved transparency, and provides far stronger incentives for emissions reduction (see our Climate Change policy).

2. Support the continued use of carbon price signals to encourage projects that reduce fossil fuel use and develop renewables, and extend the programme to smaller projects.

3. Offer a tax incentive of accelerated depreciation for investments in industry, commercial buildings and farming that increase energy efficiency or the use of renewable energy.

4. Encourage the development of emerging renewable technologies by ensuring micro generators have price certainty by establishing fair and reasonable Feed in Tariffs.

2. Improving electricity system planning and co-ordination

A. Transforming the Electricity Market

The electricity market needs to be structured to deliver sustainable, affordable and reliable energy. The Green Party will:

1. Re-establish the Electricity Authority as a Sustainable Energy Commission with research, advisory and regulatory functions, and with responsibility for all fuels and a clear mandate for sustainability.

2. Reform the current electricity market structure and ensure that the market encourages competition amongst generators and retailers, delivers affordable electricity and works in the national interest, including:
a. Re-balancing the wholesale electricity market to remove the market power and excessive profits of large generators.

b. Encouraging demand side participation in the market, ensuring that all consumers are incentivised to limit their peak demand, and hence minimise future grid investment and associated consumer price rises.

c. Encouraging distributed generation for houses and businesses, to the extent that this makes environmental and economic sense.

d. Encouraging the development of equitable electricity and gas pricing mechanisms which contribute to increased energy affordability.

e. Encouraging demand response mechanisms such as ripple control, ensure they are adequately maintained to minimise future grid investment and costs, and further ensure that the cost savings available from such load control mechanisms are actively promoted to consumers.

B. A sustainable approach to electricity lines

Investment in distributed generation and load shifting as well as smoothing peak demand can reduce the need for costly grid upgrades. In addition to the measures already stated in this policy, the Green Party will:

1. Work with Transpower and local electricity distributors to develop a long-term strategy to ensure the grid can serve as a network connecting a distributed energy system with minimal environmental impact.

2. Require Transpower and local electricity distributors to plan ahead to ensure resilience against future weather and climate disruptions.

3. Ensure the pricing and investment strategies of the national grid and local lines supports efficiency investments and load shifting and facilitates distributed generation.

C. Consumer Protection

The Green Party will:

1. Require the new Sustainable Energy Commission to develop industry best practise guidelines regarding smart meter installation, information provided to customers, and privacy protections.

2. Ensure customers can choose whether or not to have a smart meter at their property and require energy companies to gain explicit consent for installations well in advance of undertaking the work. We will further ensure that:
   
a. Customers who choose not to have a smart meter are not unfairly disadvantaged with respect to security of energy supply and charges for energy usage.

b. Customers who choose to have a smart meter retain full authority over the use of their smart meter data, for example by restricting it from being on-sold (as a default position), or by allowing free access to it from other retailers (if changing plans).

3. Introduce a mandatory code of compliance for power companies dealing with medically dependent and vulnerable consumers.

3. Conserving and using all energy forms more efficiently

Energy efficiency and conservation are the fastest, cheapest and least environmentally damaging ways of increasing the energy available to us. Coupled with a greater awareness of how our own behaviour affects energy use, increasing energy efficiency can significantly improve our quality of life while reducing energy demand. Green policies on Transport, Environment, Housing and Sustainable Communities, and Economics will all contribute to improved energy efficiency. To further enhance energy efficiency the Green Party will:
1. Review the role of the Energy Efficiency and Conservation Authority alongside the new Sustainable Energy Commission and the broader energy governance system, to ensure that there are no institutional barriers to a transition to a sustainable energy future.

2. Strengthen the role of the New Zealand Energy Efficiency and Conservation Strategy (NZEECS) by strengthening the targets, accelerating the timetables and giving the strategy greater legal weight.

3. Promote Government leadership by introducing state of the art energy efficiency throughout its own vehicles and buildings, with a focus on demonstrating what is possible, developing domestic capacity in the production and installation of new technologies, and bringing the price down for the rest of the economy.

4. Introduce mandatory energy efficiency standards for a wider range of appliances and machinery, and progressively raise these standards as technologies develop.

5. Work with the building industry and research organisations (such as BRANZ and EECA) to review existing building energy performance rating systems with a view to working towards a single system, and to phase-in the requirement for residential and commercial buildings to carry an energy performance rating when they are put up for sale.

6. Support locally based advisory services that provide free or low cost audits of homes' energy efficiency, energy conservation, and renewable energy options.

7. Develop ongoing and expanded public information and community education programmes to improve energy literacy and drive energy efficiency and conservation. Involve well-trained community-based energy groups and advisors in the delivery of such programmes.

8. Set targets and timetables, and increase funding in order to significantly accelerate the rate of domestic energy efficiency retrofits (including insulation, damp proofing of homes, and installation of clean home heating devices), and expand training schemes for auditors and installers.

9. Report on the best way to change how gas is used in New Zealand's energy supply, to ensure that new gas discoveries are used as a direct fuel rather than converted to electricity.

4. Realising the potential of renewable energy

The Green Party wants to accelerate the generation of renewable energy in order to meet climate change obligations and become less reliant on fossil fuels.

A. Supporting Wind Energy

New Zealand has an excellent wind resource. The combination of wind and hydro is particularly beneficial as water can be stored in the lakes when the wind is blowing and used to generate power when it is not. Care is needed in choosing sites for wind farms. The Green Party will:

1. Develop national guidance on wind energy and provide planning assistance to district and regional councils, to enable them to provide sites suitable for wind farms in their plans whilst minimising impacts on local communities in advance of specific proposals.

B. Using the Sun

Solar energy is most effectively used as direct heat for water and space heating, and increasingly for solar power using photo-voltaic panels. The Green Party will:

1. Provide low interest Government loans to enable affordable solar power installation on New Zealand houses.
2. Set standards and provide guidance for achieving sustainable building design that ensure new buildings make maximum use of solar energy (see our Housing and Sustainable Communities policy).
3. Ensure that covenants cannot preclude optimum solar design, including orientation of houses and location of external heating, ventilation and air conditioning (HVAC) units.

C. Making Use of Wood and Other Biomass

Our plantation forests could become a major source of energy in the future, including eventually for transport fuel. Waste wood from plantation forests can be used in co-generation plants to provide process heat and electricity for industry, with some power exported to the national grid. Waste wood chip also offers a credible way of phasing out coal as an industrial fuel, for instance in large industrial boilers, as well as in hospitals, universities and schools. Dry wood pellets and firelogs are also an acceptable fuel for household space heating in a high efficiency wood stove and this can help cut the electricity peak load. Care is needed to ensure that crops grown especially for fuel produce more energy than is used in the process, and that they do not take land out of food production on a significant scale. The Green Party will:

1. Ensure research and development is undertaken to establish the potential for woody biomass and biofuels within New Zealand.
2. Review the Wood Processing Strategy, in partnership with the industry, to incorporate planning for fuel wood.
3. Compile an inventory of waste biomass materials suitable to make fuels and match this with local potential users.
4. Facilitate the development of a local wood pellet supply industry.
5. Introduce a national testing regime for wood stoves and wood burners that measures ultra-low emissions, and work with NZ manufacturers to encourage the development of compliant models (including wet backs).
6. Facilitate and encourage localised small scale programmes to develop biofuels from waste.
7. Work with iwi and hapū to facilitate the use of iwi-owned forests and forestry waste for biomass.

D. Wave, Tide and Currents

New ways of capturing energy from the oceans with small modular turbines are being tested and show promise. However, turbines can be inappropriate in sensitive environments and can compromise local community values. To support innovation in this area the Green Party will:

1. Support funding of marine energy research and development, and assess the feasibility of New Zealand developing a leading edge role in this area.
2. Share decision-making with mana whenua in all matters relating to the marine environment.

E. Geothermal

Geothermal development for industrial process heat and electricity can be sustainable under some circumstances. It must be developed with care to ensure that natural thermal features are not disrupted, and that fluids are re-injected to deep wells so that heat and fluid are not depleted. Iwi and hapū connected to the resource, and their values, must be respected. The Green Party will:

1. Support sustainable development and use of geothermal energy.
2. Facilitate iwi and hapū involvement in the development and use of geothermal energy.

F. Hydroelectricity
Hydro provides the backbone of our current electricity generation system. The Green Party does not favour further large hydro plants because:

- Our system is vulnerable to dry winters already and we need to diversify away from hydro, and
- Rivers are important habitats for wildlife and highly valued for recreation such as fishing and kayaking. We need to protect wild rivers from further development.

The Green Party supports:

1. Small hydro developments being considered on their merits, where they can be built without significant damage to ecology or public values.
2. Iwi and hapū involvement in the planning of small hydro projects, where these projects involve water resources within the rohe of the iwi or hapū.

5. The future of other energy sources

The Green Party supports a transition to renewable energy. Our views on oil and gas are described above. This section sets out our views on fuels not discussed elsewhere in this policy.

A. Hydrogen

Hydrogen is a way of storing and transporting energy, not a primary energy source in itself. The combination of hydrogen fuel cells and solar electricity may provide a sustainable energy future for electricity and transport but is still some time away. Until hydrogen can be made from a renewable energy source such as solar electricity it cannot be regarded as sustainable. The Green Party supports:

1. An investigation into the role of hydrogen as part of overall assessment of pathways to a sustainable energy future.

B. Nuclear power

New Zealand has clear policy against the use of nuclear power. Nuclear energy is expensive, hazardous, and unnecessary. The Green Party will:

1. Oppose the use of nuclear power.
2. Make mining for uranium a prohibited activity.

C. Coal

Relatively little of our energy comes from coal at present. There is still no way to reduce the climate changing emissions from burning coal, which is the worst of the fossil fuels from a greenhouse perspective. The Green Party believes that the best way to reduce emissions from mining and burning coal is to leave the coal in the ground. More detail on our policies to reduce emissions can be found in our Climate Change policy. The Green Party will:

1. Phase out fossil fuels, starting with coal which is the worst. No new coal mines will be permitted.
2. Allow existing coal mines to run their course.
3. Not support any conversion of lignite or coal to other fuels or fertiliser.
4. Design a mechanism to discourage export of coal when it is exported to a country which does not put a price on carbon.
5. Support coal paying full carbon costs, as recommended by the Parliamentary Commissioner for the Environment.
6. Fund research and development into converting lignin and cellulose from wood into fuels and other products to replace oil and coal derived materials.