

# **Energy Policy**

### **Vision**

Aotearoa is an energy-sovereign nation where everyone has access to reliable, affordable and renewable energy from a democratised energy system that prioritises Māori, community and public ownership over private profit.

# **Summary**

We will democratise and decarbonise New Zealand's energy system through reform of electricity markets; support for community energy ownership and self-determination; legislated cuts in fossil fuel use; electrification of transport and heat; and big increases in energy efficiency and new renewable supply, to create an equitable, affordable and climate resilient energy system.

# **Values and Principles**

Energy policy decisions must reflect the following values and principles:

- Social responsibility: Energy is an essential service to which everyone should have reliable and affordable access. The energy system should exist for the public good, not just for profit.
- Honouring Te Tiriti o Waitangi: When Māori rights and interests, resources and taonga are impacted by the energy system, these must be protected. Hapū and iwi should have tino rangatiratanga over energy and resources, including governance, ownership and direct benefit from energy infrastructure.
- Appropriate Decision-making: The production and supply of energy should be democratic
  and in public, community, hapū and iwi Māori control and ownership; and should be
  governed and operated with the primary objective of increasing energy sustainability,
  sovereignty, equity and resilience for all New Zealanders.
- Ecological Wisdom: The scale and rate of energy use, and the choice of energy source, should be constrained and managed to occur within ecological limits. In particular, recognising the existential threat of climate change, urgent mitigation of and adaptation to climate change and transition to renewable sources and away from fossil fuels are core objectives of energy policy.
- Non-violence: To minimise social, economic, and environmental disruptions from climate change, the phase-out of fossil fuel use needs to be rapidly achieved in such a way as the greatest burden is carried by the biggest industrial polluters, and is otherwise shared fairly and does not fall disproportionately on the poor or marginalised.
- Synergy: Take a holistic and coherent approach across government which creates cobenefits, and avoids trade-offs.

# **Strategic Priorities**

The Green Party's strategic goals include:

"Aotearoa will lead the world in reducing gross domestic emissions of all greenhouse gases, and will be on track to end fossil-fuel use and production no later than 2035, through legally binding mechanisms."

"Sustainable transport, renewable energy and regenerative practices in all areas of economic activity, including land use and food production, will predominate."

"Comprehensive support for communities and individuals affected both by the transition to a net zero emissions economy and by the impacts of climate change within New Zealand and the Pacific will be well established."

Actions in this policy that will help achieve this:

- 1.2 Fundamentally reform the electricity market structure and ensure that the market works in the public interest.
- 2.6.3 Ensure a national integrated energy transition strategy that includes: phasing out the use of fossil fuels while maintaining energy security for households and essential public services.
- 3.1 Establish Tiriti-based energy legislation that provides an enabling framework for Māori and Community involvement, ownership and leadership in energy projects.
- 3.9 Prioritise maintaining, strengthening and/or transforming existing energy infrastructures so they better withstand extreme weather events and can manage mass electrification and increase distributed energy resources
- 5.1 Set an ambitious goal, consistent with our commitments to keep global warming to 1.5 degrees, to increase the share of renewable energy in the total primary energy supply, taking a strategic whole-of-system approach.

### **Connected Policies**

Energy has an intimate relationship with <u>Climate Change</u> policy. To achieve a resilient zero to negative carbon Aotearoa, we need to end the <u>Mining</u> and use of all fossil fuels and transform our energy sector to renewables, including the electrification of our <u>Transport</u> system. To a lesser extent, there are policy links in the following areas: Regarding the substantial need for fossil fuel reduction and opportunities for transition: <u>Agriculture</u>; regarding the protection of taonga resources from industrial energy generation: <u>Freshwater</u> and <u>Conservation</u>; regarding biofuels and carbon sequestration in permanent native forests: Forestry and Conservation.

# **Policy Positions**

# 1. Electricity market reform

Issues

The electricity market acts perversely to incentivise coal burning, lock in the dominance of big utilities, and disincentivise new-build renewable, including distributed generation.

#### Actions

- 1.1. Re-constitute the Electricity Authority as a Sustainable Energy Authority with statutory objectives and specific responsibilities for:
  - 1.1.1. being led by Tiriti-based decision-making and centred around the Māori energy sovereignty and wellbeing frameworks, including the guiding values of manaakitanga, mauri, rangatiratanga and mana motuhake;
  - 1.1.2. putting decarbonisation and sustainability at the heart of the energy system, covering all aspects of energy and fuels; and
  - 1.1.3. ensuring fair and affordable power prices and equitable access to energy services for householders.
- 1.2. Fundamentally reform the electricity market structure and ensure that the market works in the public interest, including:
  - 1.2.1. establishing electricity and gas pricing mechanisms to ensure household energy wellbeing as we transition off fossil gas;
  - 1.2.2. creating transparent wholesale pricing systems, and an efficient longerterm contracts market between generators and retailers, or requiring generators to divest their retail operations;
  - 1.2.3. removing market-structure incentives for using coal, oil and gas by generators;
  - 1.2.4. removing electricity tariff subsidies from generators to high-user organisations and emerging industries;
  - 1.2.5. facilitating demand-side participation in the electricity market by users,
  - 1.2.6. incentivising renewable energy for communities, the agricultural sector and other industries;
  - 1.2.7. encouraging distributed generation for households and businesses; and
  - 1.2.8. ensuring price certainty for renewable energy suppliers of all sizes to ensure investment, security, and reliability of supply.
- 1.3. Establish a fully state-owned, Tiriti-based, public service entity to:
  - 1.3.1. coordinate the development of utility-scale renewable generation schemes;
  - 1.3.2. support Māori, hapū and iwi and community energy developments with Māori and community governance;
  - 1.3.3. operate public-owned energy generation or storage infrastructure where the infrastructure has significant power to influence the market;
  - 1.3.4. enable the installation of solar and energy storage on public buildings, infrastructure and public housing; and
  - 1.3.5. increase the transparency of renewable development opportunities, including the visibility of relevant data.
- 1.4. Accelerate renewable energy developments by:
  - 1.4.1. establishing equitable market participation rules for independent producers to deliver renewable energy supply contracts;

- 1.4.2. requiring large utilities to rapidly develop consented renewable energy projects;
- 1.4.3. incentivising and enabling public entities, including councils, schools and hospitals, to install renewable energy systems and replace fossil fuel systems and household appliances;
- 1.4.4. solarising public housing through rooftop solar photovoltaics; and
- 1.4.5. requiring all new build housing to be energy efficient; and encouraging them to be solarised at the build stage if appropriate

# 2. A rapid and substantial cut in fossil fuel use

#### Issues

While ensuring that everyone's needs are met from renewable and low-impact energy sources to avoid catastrophic climate change and ecological collapse, we need to stop burning fossil fuels and embark on a reduction in energy use. Due to vested interests, fossil fuel industries, energy utilities, political inertia, and regulatory failure, our current energy system has proved itself far too slow to respond to the challenge.

#### Actions

- 2.1. Informed by mātauranga Māori and consistent with the urgency and necessity of limiting global heating to 1.5 degrees above pre-industrial levels:
  - 2.1.1. Prohibit new fossil fuel prospecting, exploration and mining permits and phase out existing extraction (onshore and offshore) (see our Mining Policy).
  - 2.1.2. End the import and export of coal and phase out all other fossil fuel imports.
  - 2.1.3. End all forms of direct and indirect subsidies for the fossil fuel industry.
- 2.2. Prohibit the building of any new coal, oil or gas-fired power plants and other fossil fuel-reliant infrastructure, including gas-fired generators or peaker plants.
- 2.3. Legislate an end date for fossil fuel burning for specific purposes and industries, including electricity generation, dairy dehydration, industrial and commercial heat, and light vehicles.
- 2.4. Ban new, and phase out all existing, production of nitrogenous fertilisers from fossil fuels (See our Agriculture and Rural Affairs Policy).
- 2.5. Deal with the decline of existing gas reserves by prioritising critical energy use and prohibiting use of gas for the production of export products such as methanol.
- 2.6. Ensure a national integrated energy transition strategy that includes:
  - 2.6.1. adaptive regional energy planning and mapping;
  - 2.6.2. evaluating systemwide supply and demand scenarios and developing transition pathways at national and regional levels, prioritising energy needs and equity within an energy descent framework;

- 2.6.3. phasing out the use of fossil fuels while maintaining energy security for households and essential public services;
- 2.6.4. progressively increasing energy-based emission standards across transport, housing, electricity generation, and industrial sectors;
- 2.6.5. critiquing and creating clear parameters to ensure sustainability and appropriate application of bioenergy, ammonia, green hydrogen (from water electrolysis with renewable electricity) and other emerging fuels and technologies;
- 2.6.6. rejecting false solutions, delaying, or diversionary strategies, including gas as a 'transition fuel', carbon capture storage, unsustainable biofuels and biomass, grey or blue hydrogen, and municipal solid waste-to-energy systems including incineration and pyrolysis;
- 2.6.7. engaging and working with communities to develop evidence-based behavioural interventions, including use of mātauranga Māori and tikanga Māori, to reduce energy consumption and transition away from dependence on fossil fuels;
- 2.6.8. sharing technology and expertise with other nations through commercialisation and support, where New Zealand has a relative advantage and is well positioned to assist decarbonisation efforts;
- 2.6.9. investigate the potential for, and mechanisms of, setting up Tradable Energy Quotas;
- 2.6.10. offering reskilling opportunities for those directly working in coal, oil and gas industries, including mining; and
- 2.6.11. establishing an ecologically sound role for biofuels and biomass (see below).
- 2.7. Support the replacement of coal and gas boilers with electric systems for space and water heating in schools, universities, hospitals and public facilities.
- 2.8. Significantly reduce fossil fuel use in transportation through sustainable urban planning and design, rapid transition to electrification, and facilitating active modes (walking and cycling), integrated public transport, rail transport (including freight), and coastal shipping (see our <u>Transport</u> Policy).
- 2.9. End further investments in energy-intensive military capability, export of military goods, and space intelligence (see our Defence and Peacekeeping Policy).
- 2.10. Increase humanitarian aid for developing nations to deal with energy disruptions and climate-related disasters
- 2.11. While the Emissions Trading Scheme (ETS) remains, ensure that it provides strong incentives for gross emissions reductions.
- 2.12. Accelerate phasing out the free allocation of NZUs to Emission-Intensive and Trade-Exposed (EITE) industries (see our Trade and Foreign Investment Policy).
- 2.13. Restructure energy systems to increase renewables, energy conservation and develop low-carbon employment options.

# 3. Democratisation and decentralisation of our energy system

#### Issues

The changes needed to address energy transition challenges (decarbonisation, equity, resilience and energy descent) face significant resistance from the fossil fuel industry and other vested interests and there is a lack of political action.

#### Actions

- 3.1. Establish Tiriti-based energy legislation that provides an enabling framework for Māori and Community involvement, ownership and leadership in energy projects, including:
  - 3.1.1. The ability for citizens to invest and actively participate in renewable generation, storage and other energy assets and sharing/trading projects such as peer-to-peer retail
  - 3.1.2. 'Shared ownership guidelines' for community participation in new renewable electricity generation projects.
- 3.2. Mandate Transpower to regulate fair access for independent operators to support innovation and system flexibility.
- 3.3. Guide, through National Environmental Standards, the construction of new small and community scale wind and solar farms embedded within local networks.
- 3.4. Ensure market access for independent power producers, including power purchase guarantees and regulated buy-back rates above the wholesale price.
- 3.5. Offer a Government-guaranteed power purchase platform to reduce barriers for new market entrants and manage risks.
- 3.6. Reclaim public ownership and institute Te Tiriti-based governance of energy assets and planning, and oppose privatisation of publicly owned energy infrastructure.

# 4. Energy efficiency, demand management, and resilience

#### Issues

Energy conservation and efficiency are critical in reducing overall energy demands and achieving energy sufficiency. They are the fastest, cheapest and least environmentally damaging yet the opportunities are not being realised. Moreover, extreme weather events will become more frequent and severe, threatening the safety and integrity of the existing and emerging energy infrastructure.

#### Actions

4.1. Review the roles of entities operating within the energy governance system, including the Energy Efficiency and Conservation Authority (EECA) and the Sustainable Energy Authority, and ensure they operate with Tiriti-based governance and without institutional barriers to a transition to a sustainable energy future.

- 4.2. Strengthen the role of the New Zealand Energy Efficiency and Conservation Strategy (NZEECS) by increasing its targets, accelerating its timetables and putting the strategy into regulation and/or legislation.
- 4.3. Show leadership at central and local government levels by demonstrating what is possible (including zero-carbon building solutions, urban planning that incorporates, protects, and increases urban ngahere for cooling, developing domestic capacity in the production and application of new, energy-efficiency and conservation technologies).
- 4.4. Raise mandatory energy efficiency standards in line with international best practices for new buildings (see our Housing and Sustainable Communities Policy).
- 4.5. Develop a mechanism, incentives and a timeframe for retrofitting existing buildings to international best practice energy efficiency standards (see our Housing and Sustainable Communities Policy).
- 4.6. Review and expand the minimum energy performance standards for a broad range of appliances and machinery used in homes and industry, in line with international best practices, and progressively raise these standards as technologies develop.
- 4.7. Work with the building industry and research organisations (such as BRANZ and EECA) to create a single building energy performance rating system.
- 4.8. Establish a requirement for residential and commercial buildings to carry an energy performance rating when put up for sale or rent.
- 4.9. Expand advisory services and financial assistance to households to implement energy efficiency and conservation measures, including retrofitting inefficient homes and providing renewable energy options (see our <a href="Housing and Sustainable Communities">Housing and Sustainable Communities</a> Policy).
- 4.10. Establish a fund for strengthening the energy conservation and efficiency industry, including training tradespeople and specialists, promoting eco-papakāinga and marae (Pā) complexes, research and incentives for private sector initiatives.
- 4.11. Develop ongoing and expanded public information and community education programmes, involving Universities, not for profits and qualified advisors where relevant, to improve energy literacy and drive energy conservation.
- 4.12. Support load control systems such as controllable distributed energy resources including hot water among grid-connected households and smart technologies and techniques. These also conserve and better manage available renewable energy resources.
- 4.13. Prioritise maintaining, strengthening and/or transforming existing energy infrastructures so they better withstand extreme weather events and can manage mass electrification and increase distributed energy resources

# 5. Extensive new renewable energy generation within a descent framework

#### Issues

While energy conservation and efficiency should generally be prioritised, there needs to be a substantial increase in new renewable generation to decarbonise transport, electricity generation

and essential industries. Because renewable energy development still relies on fossil fuels and mining, contributing to further ecological overshoot, more renewable energy must be achieved with energy sufficiency and equity as the goal. Cognisant of the lower energy density of renewables compared with fossil fuels, a planned energy descent would help to safeguard essential services and foster social well-being.

#### Actions

- 5.1. Set an ambitious goal, consistent with our commitments to keep global warming to 1.5 degrees, to increase the share of renewable energy in the total primary energy supply, taking a strategic whole-of-system approach.
- 5.2. Ensure that strategies and actions for new renewables protect Māori rights under Te Tiriti o Waitangi.
- 5.3. Fund research and development of renewable energy technologies where Aotearoa New Zealand has a natural advantage, incorporating full life-cycle analyses.
- 5.4. Accelerate the commercialisation of new innovation through funding schemes that reduce residual financial risks and attract climate action investment.
- 5.5. Adopt a certification scheme to ensure imported renewable energy technologies meet a minimum environmental and ethical requirement while investing in research and development of credible local production.
- 5.6. Support the development of a fully renewable electricity generation system, except for emergency supply, where necessary.

#### Wind

- 5.7. Accelerate sustainable onshore wind energy developments by appropriate government regulation, providing for wind energy in national and regional planning and enabling grid connections through the establishment of Wind Energy Zones.
- 5.8. Rapidly roll out a National Environmental Standard for Community Wind.
- 5.9. Co-develop with Māori, national guidance and legislation on offshore wind energy that takes account of the additional resources required to build and maintain offshore wind and the cultural and ecological impacts, especially on marine mammals and seabirds. This must also include sufficient bonds and decommissioning requirements in the legislation.
- 5.10. Require wind developments to be done with direct involvement of, and benefit to, Māori, with particular regard to regionally and locally impacted hapū and iwi in whose rohe infrastructure would be built.

#### Solar

- 5.11. Accelerate solar power installation on public buildings, such as schools and marae and papakāinga, and for lower income households which are well-suited to solar energy use.
- 5.12. Offer grants and concessional financing schemes to significantly expand controllable hot water energy storage capacity and replace gas hot water systems with electrical across households, industries and public buildings.

- 5.13. Introduce an end-of-life solar panel and battery management framework (see also our Waste and Hazardous Substances Policy).
- 5.14. Ensure that covenants cannot inhibit optimum solar design, including orientation of houses and location of external heating, ventilation and air conditioning (HVAC) units
- 5.15. Enable independent producers to equitably participate in the electricity market.

#### **Smart and Micro Grids**

5.16. Support smart and Micro-Grids, which can, within local low-voltage networks, use digital technologies to provide cleaner, cheaper, smarter power through real-time demand management and peer-to-peer energy trading.

#### Bioenergy (including biomass, biogas and biofuels)

- 5.17. Only support the development and use of bioenergy which deliver strong climate benefits without unacceptable cultural, land use and ecological impacts.
- 5.18. Do not support the import or export of biofuels or biomass.
- 5.19. Oppose the development of, and reliance on ecologically unsustainable liquid biofuels for transport, while supporting research on more sustainable fuel alternatives (see also our <u>Transport</u> Policy for actions to reduce reliance on fossil fuelled transport).
- 5.20. Prohibit the use of indigenous flora, forests and conservation estates for bioenergy.
- 5.21. Prioritise community-scaled bioenergy production for local and domestic needs and emergencies, over large-scale production.
- 5.22. Require that fuel cropping and plantation for biomass and biofuels, create cobenefits rather than land use conflicts with respect to food production, biodiversity and cultural values.
- 5.23. Support iwi and hapū in making optimal decisions on the use of Māori-owned production forests and forestry waste for bioenergy.
- 5.24. Ensure environmental sustainability from biomass production, to harvest and fuel processing, focusing on forestry wood waste.
- 5.25. Consider research and development of torrefaction of wood wastes to produce high-quality biomass to substitute coal for emergency electricity generation and some industrial processes that require high-temperature heat.
- 5.26. Support energy generation from landfill gas until landfills are phased out.
- 5.27. Support energy generation from biogas associated with animal and plant wastes on farms.
- 5.28. Prohibit waste-to-energy systems including incineration or pyrolysis of municipal solid waste for energy production.

#### **Wave, Tide and Currents**

5.29. Incentivise and support partnerships with iwi and hapū to develop and commercialise capability in marine energy research and development in accordance with their tikanga. We must ensure that any marine energy systems

avoid damage to vital estuary ecosystems and avoid damage to marine mammals (i.e. caught in turbines and structures).

#### **Geothermal**

- 5.30. Taking into account that Geothermal has a higher emissions profile than wind, solar or hydro but has the useful ability to provide constant and reliable base load in a way similar to fossil gas or coal generation:
  - 5.30.1. Support sustainable development and use of geothermal energy, including direct heat use.
  - 5.30.2. Support iwi and hapū leadership in the development and use of geothermal energy'
  - 5.30.3. Support the use of ground source heat for new builds in commercial and residential sectors and district energy schemes.

#### Green hydrogen

- 5.31. Oppose production of hydrogen from fossil fuels.
- 5.32. Prioritise phasing out the use of grey and brown hydrogen.
- 5.33. Undertake a whole energy system analysis to determine whether green hydrogen should be part of this system by:
  - 5.33.1. Including mātauranga Māori perspectives.
  - 5.33.2. Comparing the opportunity cost of green hydrogen and other options
  - 5.33.3. Considering the energy costs and inefficiencies of production, storage, transportation, and use of green hydrogen
  - 5.33.4. Completing the analysis prior to consideration of a new green hydrogen production industry for domestic and export markets
- 5.34. Green hydrogen should not be produced in preference to using electricity directly for energy.
- 5.35. Focus research on green hydrogen to use in hard-to-abate applications which are reliant on fossil fuels, such as steel and potentially aviation, heavy transport and shipping.
- 5.36. Oppose green hydrogen projects that are intended to replace other forms of energy-efficient, zero-emission energy systems that have already reached technological, economic and environmental maturity.

# 6. Other energy matters

#### Digital energy solutions

6.1. Incentivise research and development of digital energy management systems.

#### Carbon capture and storage

6.2. Oppose carbon capture and storage because it is not a credible technological solution to climate change.

# **Nuclear power**

6.3. Oppose nuclear power.