

ERP 1		Draft ERP 2
<b>Targets</b>  NZ emissions budgets <ul style="list-style-type: none"> <li>• 2022-25</li> <li>• 2026-30</li> <li>• 2031-35</li> </ul> Net zero 2050 (except biogenic methane)  Biogenic methane -10% of 2017 levels by 2030 24-47% by 2050	<p>Targets to be achieved by reducing gross emissions (gas to atmosphere) and increasing offsets (carbon removed from atmosphere through forestry and possibly other solutions).</p> <p>There are sub-targets for high-emitting industries and key sectors: transport, energy and industry, agriculture, waste, fluorinated gases and forestry.</p>	<p>Plans for reductions are discontinued for most sectors. Gross emissions will be higher under ERP 2 and budgets to 2030 are intended be achieved by increasing offsets. Budgets after 2030 and the 2050 targets are unlikely to be achieved.</p> <p>The plan says the Government is still committed to net zero for gases other than biogenic methane by 2050. The biogenic methane targets are being reviewed.</p>
<b>Nationally determined contribution (NDC)</b>  NDC 1: 2021-2030  NDC 2: 2031-2035	<p>Domestic emissions reductions will not be enough to meet the NDC 1 target. NZ will purchase international offsets to meet the shortfall.</p> <p>Offsets need to be purchased within the NDC 1 period (2021-2030). Treasury's estimate for the projected shortfall under ERP 1 was \$3.3b - \$26b. By 2030, the price is expected be at the higher end of the range as countries complete to purchase offsets.</p>	<p>ERP 2 will result in a greater shortfall between domestic emissions reductions and NDC 1. More offsets will need to be purchased between now and 2030. The plan says the Government is working on this challenge.</p> <p>The NDC 2 target will be set in 2025 for 2031-2035. NDCs are expected to be progressive i.e. higher than the previous target. If post-2030 domestic emissions budgets are not achieved, NZ will need to keep buying offsets.</p>
<b>Estimated cost</b>	<p>Policies are projected to reduce NZ's GDP by 0.4% from 2030-2050.</p>	<p>Policies are projected to reduce NZ's GDP by 0.39% from 2030-2050. Does not include the cost of additional international offsets to meet NDC targets.</p> <p>ERP 2 policies are not expected to meet 2050 targets. Increased effort (after 2030) to meet 2050 targets is projected to lead to GDP being 0.7% lower by 2050.</p>

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<b>Emissions Trading Scheme</b>	<p>Plan uses the ETS to drive emission reductions. As the cost of using fossil fuel increases, so does the cost of manufacturing and transporting goods. Manufacturers or their customers are incentivised to shift to low carbon technologies.</p> <p>The price of using carbon needs to be high enough to drive the change. Measures to preserve competitiveness of NZ industry and/or reduce costs of living may undermine the scheme. Review to consider changes to ETS to incentivise gross emissions reductions vs removals.</p>	<p>Plan relies on the ETS to drive emission reductions.</p> <p>The review of the ETS has been cancelled. The plan says the market needs certainty to invest in exotic (pine) forests, which will eventually set the price of NZUs. There will be no use by dates for NZUs or weighting of gross emissions reductions vs removals.</p> <p>Projected NZU price in 2050 with no substantial change to the ETS is \$50 per tonne (it was \$230 per tonne under ERP 1). Will not encourage reductions or removals beyond mid-2030s to achieve and sustain net zero.</p>
<b>Research and technology</b>	Funding to support research and new technologies.	Funding to support research and new technologies.
<b>Investment in climate transition</b>	<p>Government will provide finance to support transition using ETS revenue e.g. NZ Green Investment Finance, GIDI Fund, Clean Car Discount, State Sector Decarbonisation Fund.</p> <p>Various initiatives to “green” the finance sector including exclusion of some investments from default KiwiSaver provider portfolios and mandatory climate disclosure requirements.</p> <p>The Carbon Neutral Government Programme requires public agencies to support procurement of low-emissions and low-waste goods and services.</p>	Investment must come from the private sector, incentivised by the ETS. Government will develop a rulebook for what is green and improve climate information to assist investment decisions. Mandatory climate disclosure requirements will be maintained.

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<b>Energy</b>	<p>Target 100% renewable energy by 2030. Improve consenting and provide funding and incentives. Support long-term renewable power purchase agreements for government and local government agencies. Develop infrastructure to manage variable peaks and flows.</p> <p>Dry year solution to be identified (Lake Onslow pumped hydro identified as likely solution in 2023, estimated cost \$8.7b - \$28b.) Ban new fossil-fuel baseload electricity generation.</p> <p>Phase out existing coal boilers by 2037, develop gas transition plan. Investigate options for renewable gas and bioenergy. Develop roadmap for hydrogen.</p> <p>Promote business and household energy efficiency to reduce drain on grid. Use regulations and rebates.</p>	<p>Double renewable energy by 2050 through faster and cheaper consents to support private investment. No funding or incentives for renewables. Investment in electricity transmission and distribution infrastructure required.</p> <p>Continue to burn fossil fuel for peak demand and in dry years. Encourage gas exploration (coal will be used if gas is not available). Enable innovation / new fuels to access market.</p> <p>ERP 1 modelling assumed the Tiwai aluminium smelter would close in 2024, increasing capacity in the grid and reducing emissions from fossil fuel generation and the smelting process. The smelter has entered energy supply contracts for another 20 years.</p>
<b>Industry</b>	<p>Target 50% energy consumption from renewables by 2035.</p> <p>GIDI Fund grants for energy efficiency and fuel switching projects (e.g. NZ Steel electric arc furnace). EECA programmes and funds.</p> <p>Ban new coal boilers. Phase out existing boilers by 2037.</p> <p>Mandatory energy and emissions reporting scheme.</p>	<p>ETS to drive change. GIDI Fund disestablished.</p>

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<b>Construction and built environment</b>	<p>Legislative reforms for planning and infrastructure to reduce future emissions and build resilience. Promote mixed-use, medium and high-density development close to urban centres which are not dependent on cars. Nature-based solutions or blue/green infrastructure to support carbon removals and climate resilience.</p> <p>Improve energy efficiency of buildings to reduce demand on the grid. Amend Building Code and measure energy performance.</p> <p>Introduce whole of life embodied carbon requirements into Building Code. Reporting and measurement, with a view to setting a sinking cap.</p> <p>Require waste minimisation or recovery plans.</p> <p>Use Kāinga Ora and Government purchasing power to drive change.</p>	<p>Investing in infrastructure and the built environment is described as the first pillar of the Government's plan. What this entails is not described.</p> <p>Plan states "The Government intends to support green building practices in New Zealand, and work to establish a clearer picture of this is underway." Regulatory barriers to building with wood will be removed.</p>
<b>Transport</b>	<p>Target all new cars to be low or zero emissions by 2035. Clean Car Standards and Clean Car Discount scheme. Trial social leasing schemes to increase access for low-income households. Improve EV charging infrastructure.</p> <p>Reduce total kilometres travelled by car by improved urban forms and public transport options. Legislative reforms for planning and infrastructure. Incentivise local government to change streets to improve public transport, walking, biking, scooters etc. Subsidise fares.</p>	<p>ETS will drive change (higher fuel costs). Clean Car Discount scheme ended and stringency of Clean Car Standard reduced. 10,000 public electric fast chargers by 2030.</p> <p>Integrate transport investment with land use planning. Continue with City Rail Link and busway projects in Auckland. Improve capacity and reliability of train services in lower North Island. Explore options for low carbon fleets. Fund bus decarbonisation.</p>

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	Funding to support zero and low-emissions trucks. All new buses to be zero-emissions by 2025. Develop targets for decarbonising aviation and maritime targets.	Remove barriers to low carbon technology/fuels for heavy vehicles. Grants available. Facilitate discussions re aviation and shipping decarbonisation.
<b>Agriculture</b>	<p>Price emissions from 2025. Emissions reports and mitigation plans by 2025.</p> <p>Research and development into mitigation measures and technologies. Streamline access to market. New public-private joint venture to drive R&amp;D. Support mātauranga Māori-based approaches to emissions reduction agriculture. Expand digital connectivity and fund sustainability initiatives.</p>	<p>Price emissions from 2030. Standardise estimation tools for on-farm emissions and recognise on-farm removals.</p> <p>Continue funding research into methane reduction technologies and remove barriers to use, including reform of genetic technology regulations.</p>
<b>Waste</b>	<p>Invest in organic waste and construction waste separation and processing. Regulations to require landfill gas capture. National waste licensing scheme.</p> <p>Use the public sector to introduce a circular economy (waste recovery, recycling etc). Align regulatory systems and fund business initiatives.</p>	Invest part of waste levy revenue in infrastructure to process organic waste. Work with industry to improve organic waste disposal and landfill gas capture.
<b>Fluorinated gases</b>	Build capacity to shift to low emissions refrigerants. Regulate imports, sale and use of fluorinated gases with high global-warming-potential. Mandatory product stewardship scheme.	

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<b>Forestry and other abatement</b>	<p>Support afforestation. Consider amendments to ETS and resource management settings to achieve right type and scale of forests in the right place.</p> <p>Support native afforestation as long-term carbon sinks through cost reductions and incentives.</p> <p>Grow forestry and wood processing industries.</p> <p>Sequester carbon and improve biodiversity through wet land and coastal restoration and native planting. Urban green spaces for temperature and flood control.</p>	<p>Encourage afforestation and wood processing. Support Wood Processing Growth Fund. Remove regulatory barriers to building with wood.</p> <p>Limit ETS registrations for whole farms on productive land. Afforestation of Crown land from 2027 with pine and natives in partnership with private sector.</p> <p>Consider scientific evidence for other abatement methods, including restoration of wetlands and on-farm and coastal vegetation and carbon capture technologies (storing carbon dioxide made from burning fossil fuels).</p>
<b>People</b>	<p>Policies to empower Māori to support transition.</p> <p>Equitable transition strategy to identify impacts and opportunities, support retraining and re-employment and transport, energy and waste initiatives to mitigate effects on households / whānau.</p>	<p>The Government is consulting with Māori on ERP2.</p> <p>Plan anticipates the ETS will drive an increase in petrol and energy prices which will disproportionately affect lower socio-economic groups. Notes that Māori and Pasifika are disproportionately represented in these groups.</p> <p>No measures are proposed beyond current social support. The 2024 tax cut is described as “climate dividend tax relief” (it is funded from ETS revenue).</p>