MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Advancing New Zealand's energy transition

18 August 2023

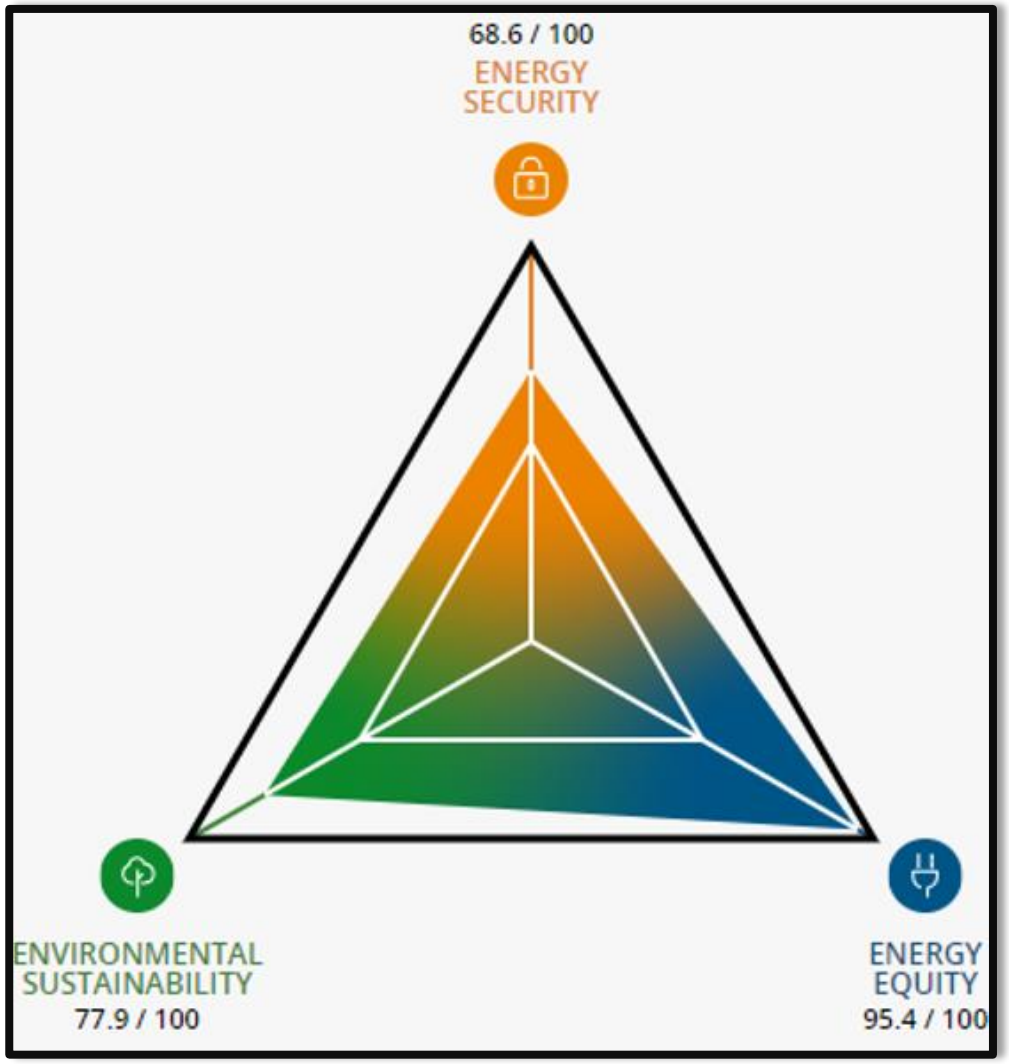
Te Kāwanatanga o Aotearoa
New Zealand Government

Purpose

- Update on the Government’s energy transition work programme
- Update on the New Zealand Energy Strategy
- Introduce a suite of recently released energy system discussion documents

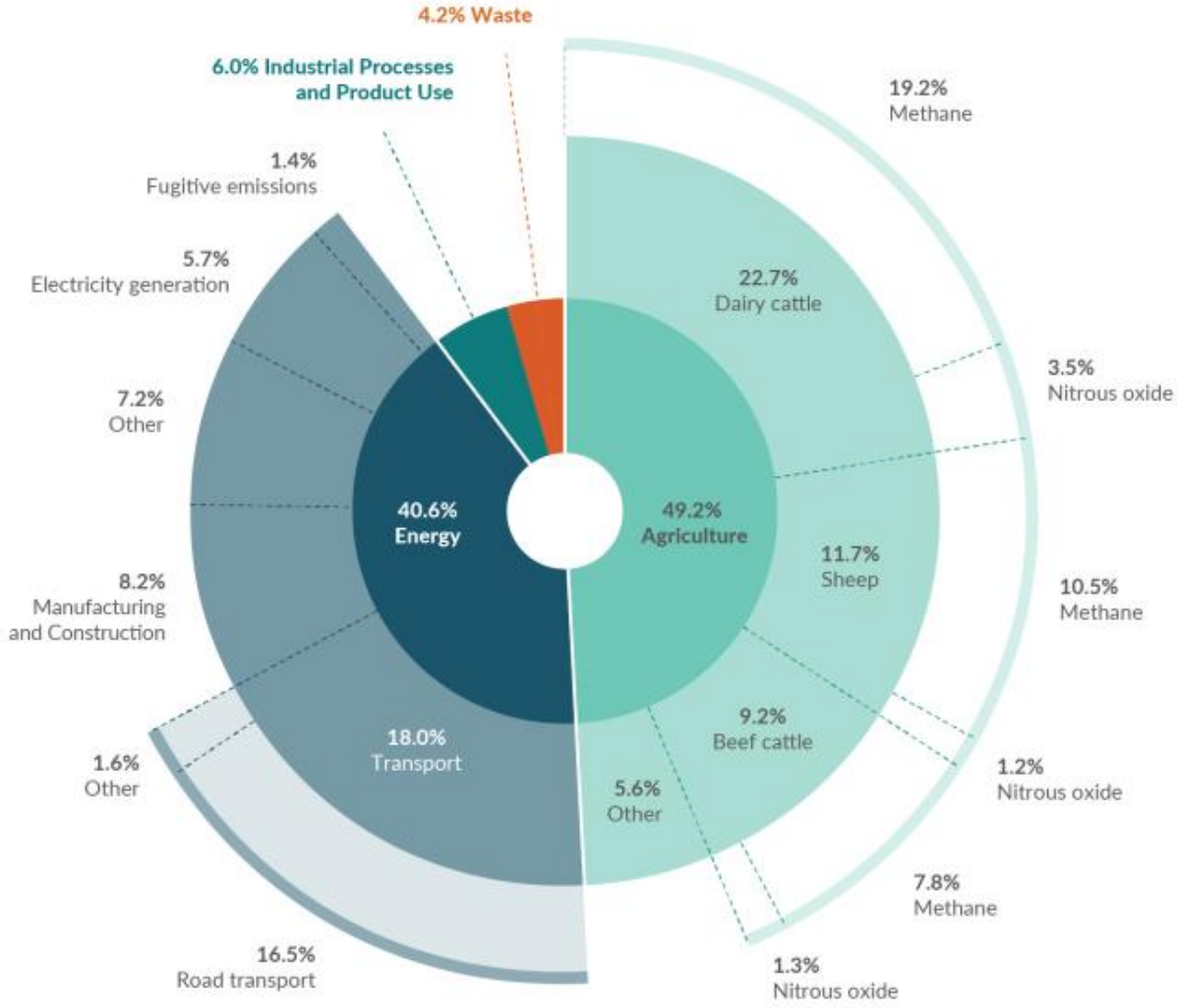
Our energy system has served us very well

- The energy system underpins transport, heating, manufacturing, and countless other essential uses
- NZ ranked 10th overall out of 91 countries International Energy Agency
- And 4th in the OECD for proportion of electricity from renewable sources



Shifting to a low-carbon energy system is the big challenge

- The energy system is responsible for around 40% of our greenhouse gas emissions.
- To get to net zero 2050, this has to reduce substantially.



Gross gas emissions in 2021 by sector, sub-category and greenhouse gas type

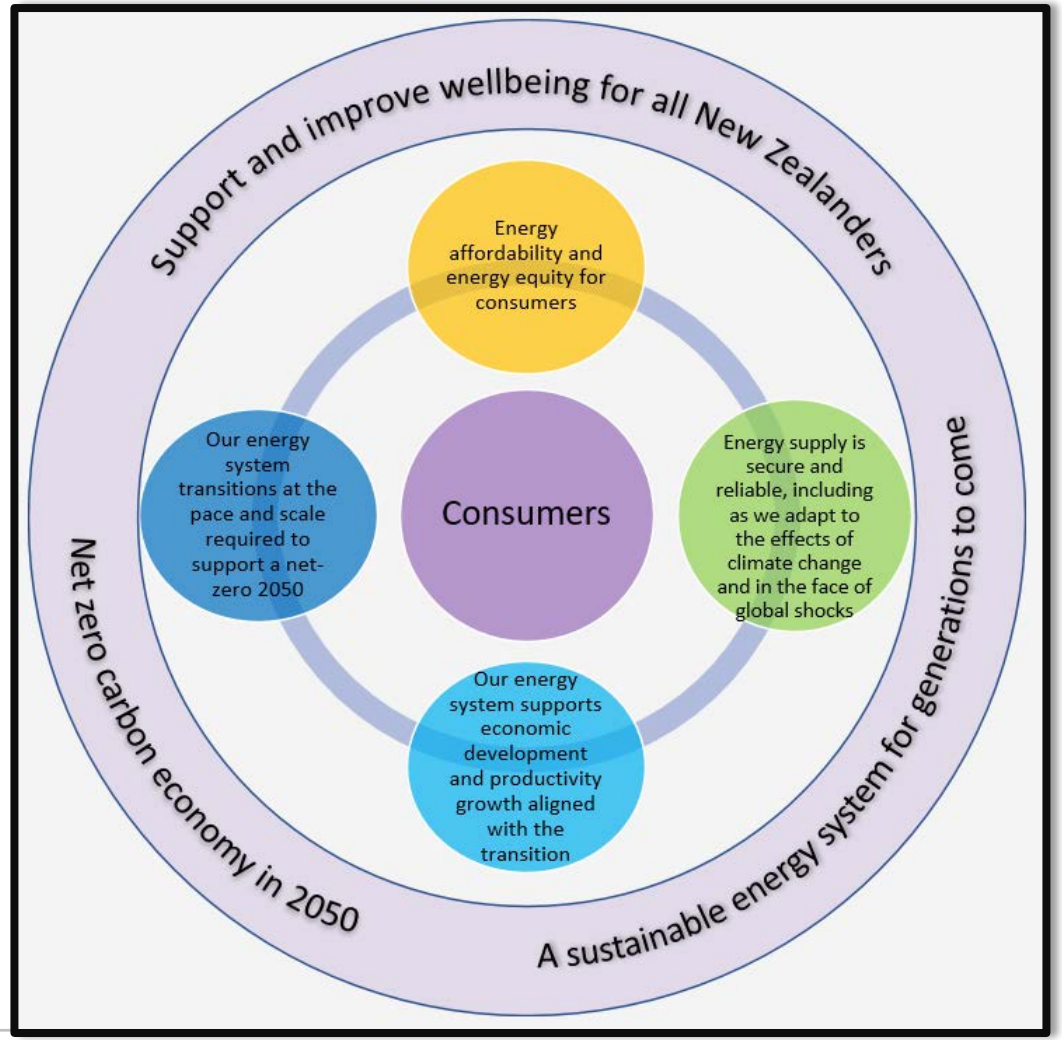
There is already a lot of work underway

- New Zealand Battery Project
- Regional Hydrogen Transition
- Government Investment in Decarbonising Industry (GIDI) fund
- Warmer Kiwi Homes programme
- Clean Car Discount and the development of an electric vehicle charging strategy
- Community Renewable Energy Fund
- Progressing consenting improvements for renewable electricity generation and transmission
- Progressing an Equitable Transitions Strategy
- Carbon Neutral Government Programme

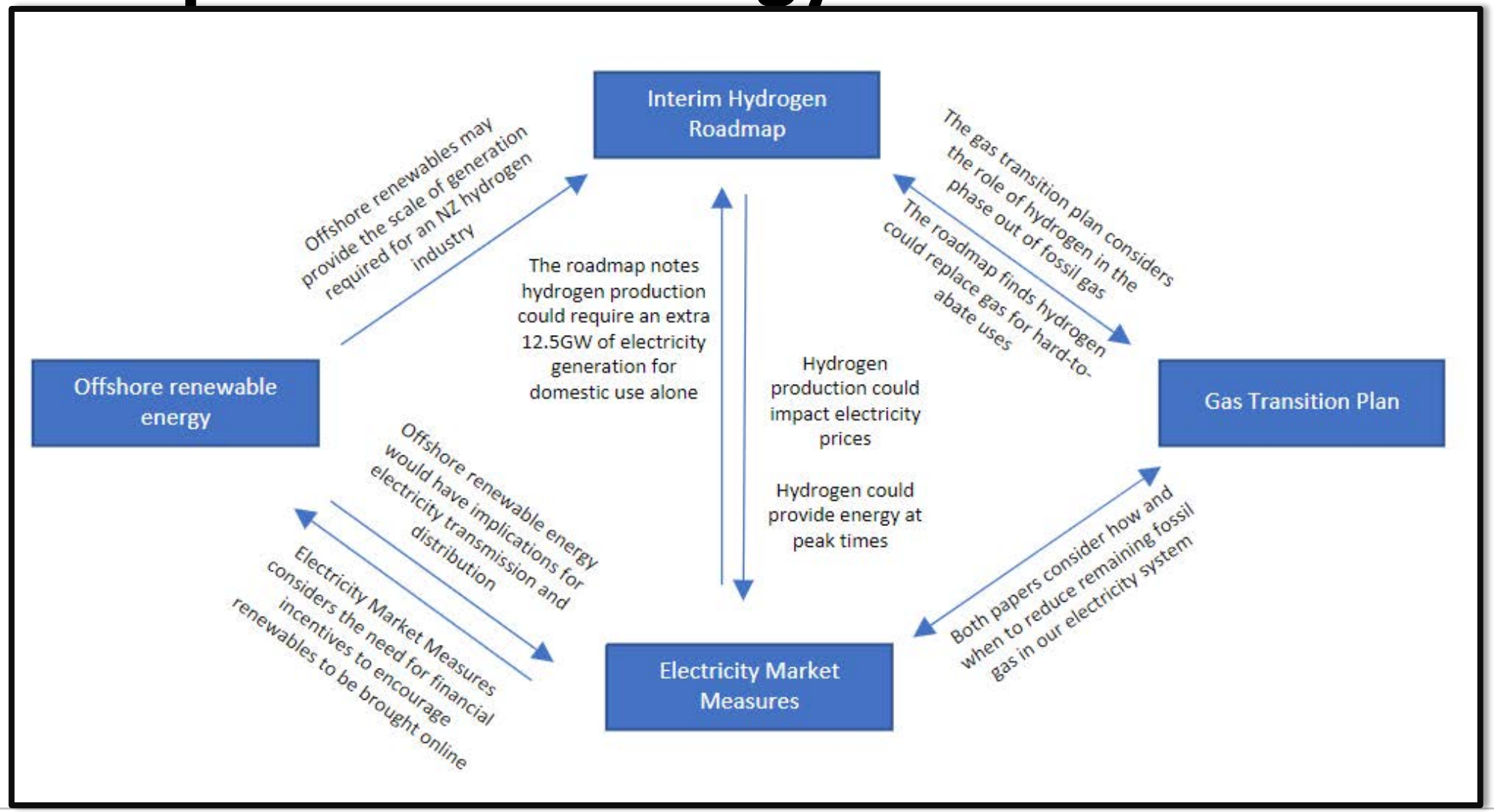
The Energy Strategy will provide a long-term holistic view of the energy transition

The Energy Strategy aims to set direction for how we transition to net-zero emissions by 2050 – while ensuring:

- energy affordability and energy equity for consumers
- secure and reliable energy supply, including as we adapt to the effects of climate change and in the face of global shocks
- an energy system that supports economic development and productivity growth aligned with the transition.



Each document in the package addresses a critical aspect of the energy transition



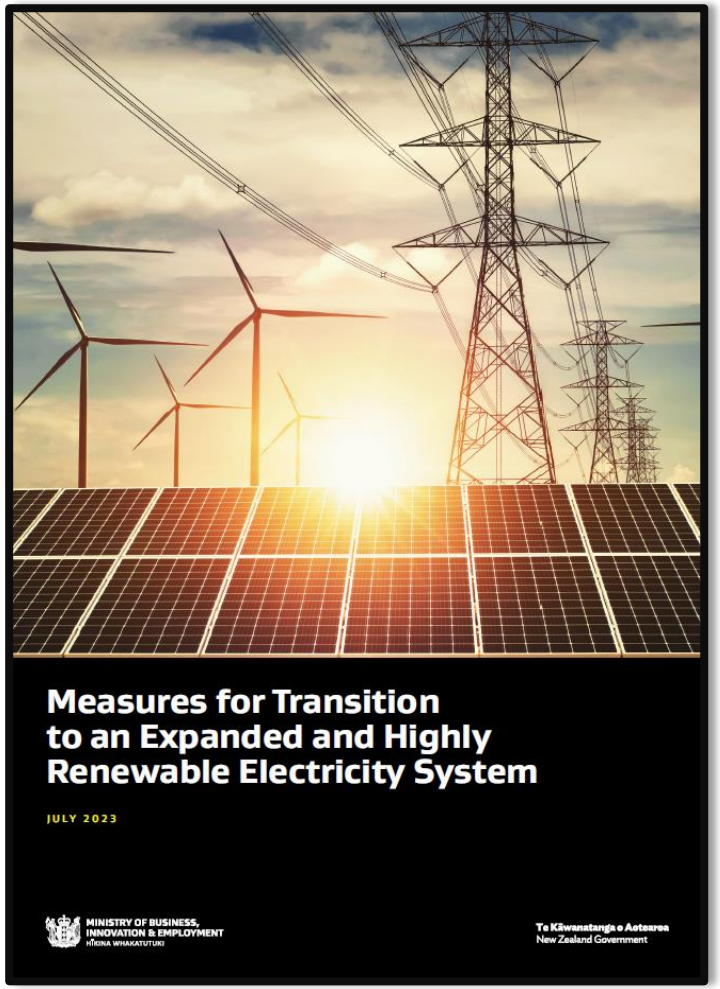
An expanded and highly renewable electricity system

Why are we consulting?

- Need to phase out fossil fuels, expand generation/transmission/distribution, build resilience
- Maintain affordability and security/reliability as the system transitions
- May need additional measures to support transition, and exploit new technologies

Key questions:

- How do we ensure sufficient investment in **new renewable generation** to expand our electricity system for electrification and to replace retiring fossil fuel generation?
- How do we ensure adequate **dispatchable generation capacity, storage or demand side response** as fossil fuel plants retire and intermittent capacity grows including ensuring sufficient capacity for peaking, calm, cloudy periods, and managing the 'dry year' challenge (ahead of any NZ battery project solution)?
- How do we ensure **competitive markets** during transition to a more highly renewable electricity system?
- How do we grow and enhance **transmission and distribution networks** at a sufficient pace to meet our needs for demand growth and new renewable generation in a timely way?
- How do we support smarter use **of networks and smart technologies**?



An expanded and highly renewable electricity system

		The part covers:
Part 1	**Growing Renewable Generation**	Ensuring sufficient renewable generation is built and that fossil fuel generation will be replaced in a way that maintains security, reliability and affordability, including ensuring sufficient firm capacity during transition. Also considers the role of large-scale flexibility to provide demand response.
Part 2	**Competitive Markets**	Competition issues that may arise in the electricity market during the transition away from fossil fuels and increasing reliance on hydro with storage for firm capacity.
Part 3	**Networks for the Future**	How we ensure sufficient transmission and distribution investment to support a larger share of renewable electricity generation and greater reliance on electricity. Includes considering whether regulator objectives adequately reflect government sustainability goals.
Part 4	**Responsive Demand and Smarter Systems**	Issues relating to increased distributed flexibility including opportunities to utilise smarter systems that will improve electricity system reliability, resilience, and affordability.
Part 5	**Whole of System Considerations**	Whether there is a role for more coordination across the electricity system as a whole, and reviews the need for prioritisation by government.

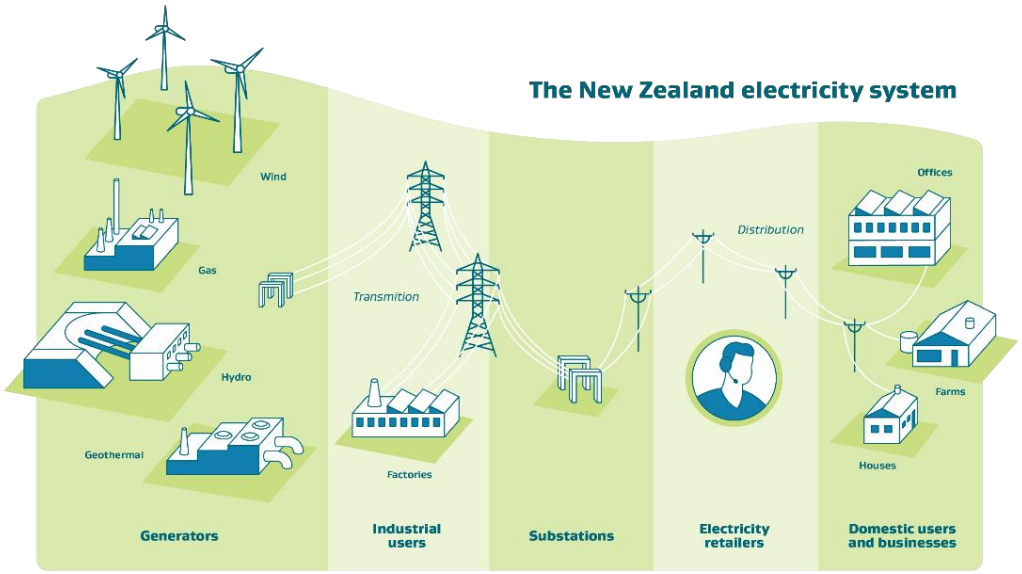
An expanded and highly renewable electricity system

We are seeking your feedback on challenges and measures to consider further

- This is an ‘issues paper’, government is not yet proposing policy interventions
- The paper asks – beyond what’s already underway, do we need additional government or regulatory measures to support the transition?

Further engagement during August – October:

- Electricity Market Measures/Fossil-fuel Baseload Ban webinar: **Tuesday 29 August, 2pm.**
- The team will be hosting further stakeholder engagement via industry associations.
- Or contact the team at electricitymarkets@mbie.govt.nz to set up stakeholder-specific discussions.
- At these, the team can either present again on the paper, or meet to discuss and hear your thoughts before submissions are drafted.



Consultation on a Fossil-fuel Baseload Ban

Why are we consulting?

- 2022 Emissions Reduction Plan commitment
- Provide regulatory certainty to the market
- No impact on new/existing peaking plants, or existing baseload plants

Key questions:

- Is an exemption to the ban necessary for **security of supply** purposes?
- Should government allow new plants that use a **blend of fossil fuels and renewable fuels**?
- Should **co-generation** plants be exempted?

Further engagement

- Electricity Market Measures/Fossil-fuel Baseload Ban webinar: 29 August, 2pm.
- Stakeholder-specific engagements and also via the industry associations
- Submissions due: 2 November 2023

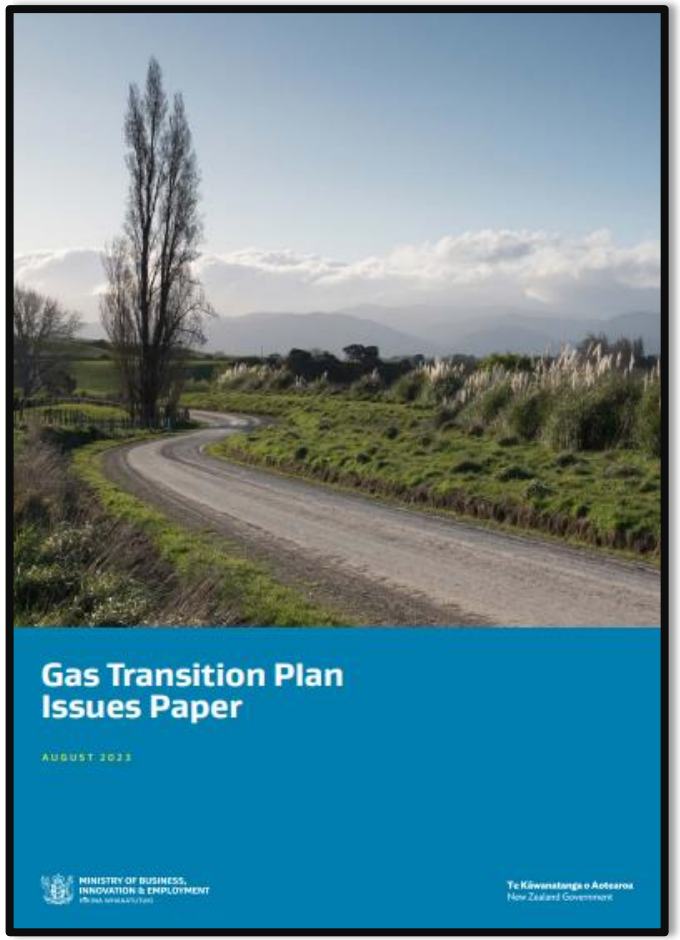
Gas Transition Plan: Issues Paper

Why are we consulting?

- The gas industry needs to transition to a low emissions future …
- …getting the transition path right will be critical for energy security and affordability, and New Zealand's prosperity

Key questions:

- **When and how should we transition from fossil gas** to help meet New Zealand's emissions reductions objectives, while maintaining security of supply and the energy system?
- What is the role for **alternative renewable gases** like biomethane and hydrogen?
- What is the role for technologies like **carbon capture and storage**, which offer promising ways to reduce emissions through the transition phase?
- What are the options for increasing **gas system flexibility** (gas storage and Liquified Natural Gas)?



Gas Transition Plan: Issues Paper

We are seeking your feedback

- Your feedback will inform final Gas Transition Plan – having your say is important! Your views will help shape the direction and final form of the plan
- We are consulting on an issues paper to get your views on important issues for the gas sector and the future transition – this means we are not yet proposing any policy interventions.
- The Gas Transition Plan deals with a critical part of the energy system and the sector is deeply interconnected with parts of the economy – we need to take the time to get it right – the decisions made about the pathway for transitioning gas will affect us all.
- Submissions due: 2 November 2023 – you can send them through to the gas transition inbox at gastransition.mbie.govt.nz or through the online survey.

Further engagement

- Gas transition webinar: 30 August 2pm – sign up for more information on the Plan and to have a chance to ask questions of the gas team.
- We will also be holding stakeholder-specific engagements and iwi engagement during the consultation period – if you would like to talk to us directly please get in touch through gastransition@mbie.govt.nz or talk to the GIC.

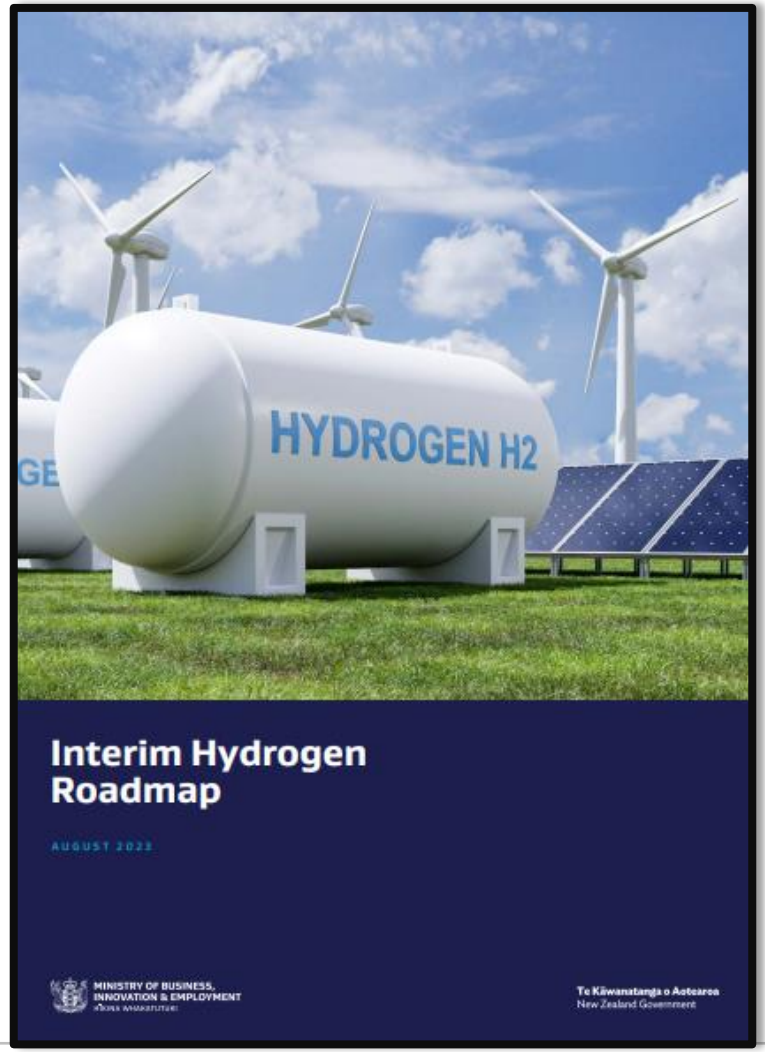
Interim Hydrogen Roadmap

Why are we consulting?

- Emissions Reduction Plan (ERP) commitment
- Low emissions and versatile fuel and feedstock
- Could help with ‘hard to abate’ uses
- Economic and energy security and resilience opportunities.
- What is most efficient and effective roles for hydrogen, and how government can help?

Key questions:

- Do you agree that hydrogen has the most potential for New Zealand in **decarbonising hard-to-abate applications** such as chemicals, fertiliser and heavy transport (including heavy long-haul freight, aviation and marine)?
- What are the key challenges for achieving **commercial viability**, and what role should the government play?
- Significant **additional renewable electricity generation** will be needed to develop large scale hydrogen production, especially if New Zealand becomes a green hydrogen exporter. How do you think we should approach this challenge and manage any risks?



Interim Hydrogen Roadmap

We are seeking your feedback on the Interim Hydrogen Roadmap

- Submissions due 2 November 2023
- Feedback will inform final Hydrogen Roadmap in 2024

Further engagement

- Interim hydrogen roadmap webinar: 31 August 2pm.
- Stakeholder-specific engagements and also via industry associations and other related events.

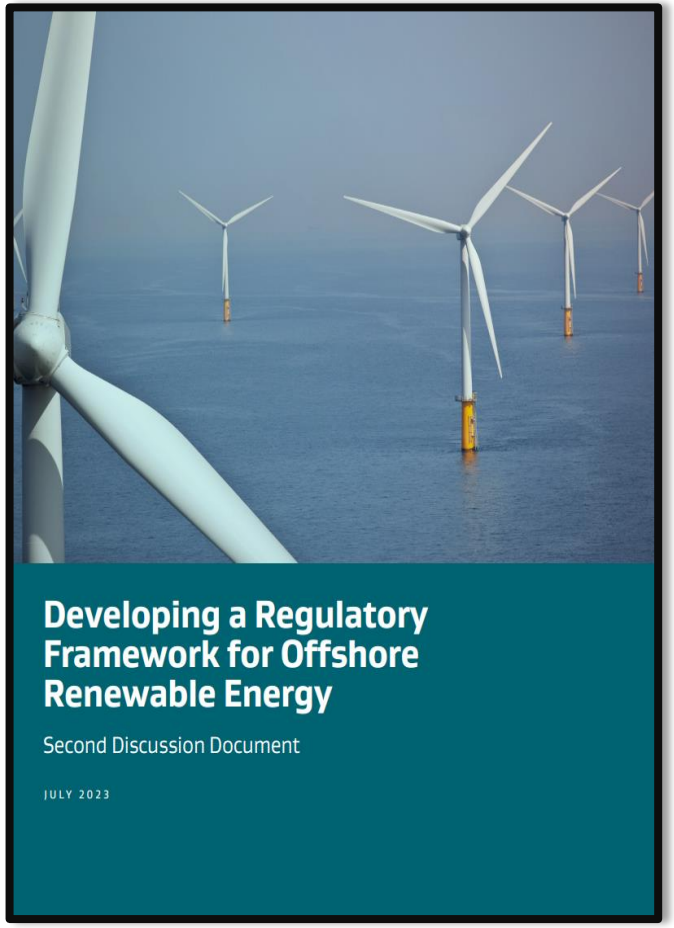
Regulating Offshore Renewable Energy

Why are we consulting?

- Emissions Reduction Plan (ERP) commitment, regulatory regime by 2024.
- Two phase consultation:
  - First phase focused on feasibility (December 2022 discussion document)
  - Second phase will focus on construction, operation and decommissioning (August 2023 discussion document)
- Core proposal: developers will be required to obtain a permit to construct and operate offshore renewable energy projects.

Key questions:

- What should the **commercial permitting process** look like: structure, criteria, nature of permit?
- How should this interface with **environmental consents**?
- Is there a case for **revenue** support and opportunities for government to gather revenue?
- Who should build and own offshore **transmission** infrastructure?
- How do we ensure developers have the funds and financial capability to **decommission** properly when the time comes?



Regulating Offshore Renewable Energy

We are seeking your feedback

- Feedback will inform final proposals for regulating offshore renewable energy
- Submissions due: 2 November 2023

Further engagement

- Offshore renewable energy webinar: 24 August 2pm.
- Stakeholder-specific engagements and also via the industry associations.
- Dedicated engagement with iwi and hapū to determine Māori involvement in the regulatory regime. Focus on the involvement in decision making, protection of existing rights and economic opportunities.

Webinar series

Webinars:		Contact information
Energy strategy update, discussion document overview	**18 August, 10am**	New Zealand Energy Strategy | Ministry of Business, Innovation & Employment (mbie.govt.nz) EnergyStrategy@mbie.govt.nz
Developing a Regulatory Framework for Offshore Renewable Energy	**24 August, 2pm**	Offshore renewable energy | Ministry of Business, Innovation & Employment (mbie.govt.nz) offshorerenewables@mbie.govt.nz
Measures for transition to an expanded and highly renewable electricity system *Implementing a ban on new fossil-fuel baseload electricity generation*	**29 August, 2pm**	Electricity market | Ministry of Business, Innovation & Employment (mbie.govt.nz) electricitymarkets@mbie.govt.nz
Gas Transition Plan: Issues Paper	**30 August, 2pm**	https://www.mbie.govt.nz/dmsdocument/27255-gas-transition-plan-issues-paper-pdf gastransition@mbie.govt.nz
Interim Hydrogen Roadmap	**31 August, 2pm**	A roadmap for hydrogen in New Zealand | Ministry of Business, Innovation & Employment (mbie.govt.nz) hydrogen@mbie.govt.nz

Thank you.

Questions (please add your questions to the Q&A function)

Ministry of Business, Innovation & Employment
15 Stout Street, PO Box 1473,
Wellington 6140, New Zealand.
www.mbie.govt.nz