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Energy Council



# ENERGY BRIEFING 2023



# MAKING ENERGY TRANSITIONS HAPPEN

Energy is foundational for prosperity and wellbeing. We all depend upon access to reliable, affordable, and sustainable energy. Energy is not just a standalone sector; it is intertwined with, and influences other, significant systems including power, transportation, industry, food, and buildings. Over the past century the world has reeled from various shocks and crises, often stemming from geopolitical events which have had a profound impact on the energy landscape. As an energy community deeply rooted in local context yet globally connected, we have a unique opportunity to shape better outcomes for the next 100 years.

Change in New Zealand is well and truly underway. Government, policymakers, businesses, and individuals are confronting the task of reducing emissions attributed to energy production and consumption head-on. This challenge presents numerous opportunities for New Zealand. This includes improving resilience and safeguarding energy security in the face of potential supply shocks and extreme weather – risks well demonstrated following Cyclone Gabrielle, the COVID-19 pandemic and the Ukraine War’s energy implications – and continually improving energy affordability. The current cost-of-living crisis is providing a salient reminder of the need to ensure businesses can afford their energy inputs and households can pay their bills.

New Zealand’s producers and users of energy have been leading the way in decarbonising their processes and supply chains. Significant investments have been made and changes implemented, but the work goes on and businesses have extensive plans to reduce their emissions further. Achieving a successful transition is no easy task. The energy system is complex and interconnected, with co-dependent components and players. It is crucial to recognise this interconnectedness as the sector continues to evolve. Sitting in silos and disregarding trade-offs can be costly, diminishing opportunities across the energy system. There is a lot at stake, for employment, global competitiveness, and the living standards we enjoy. To ensure success, coordination and collaboration among all stakeholders is essential.

Sector stakeholders have identified various issues, opportunities, and priorities to support and accelerate the transition while maintaining energy security. This briefing highlights the key issues identified by our members and presents a general framework for what a good policy environment looks like. The briefing outlines four key focus areas for the incoming Minister to address. These focus areas are assembled around common challenges and barriers that impact across the energy sector. From a whole-of-energy-sector perspective, addressing these policy areas will provide the most significant benefit, enabling potential solutions to flourish while creating positive spillovers for the environment, the economy, and our living standards.

BusinessNZ Energy Council strives to bring together perspectives, expertise, and knowledge across the energy sector to drive evidence-based policy, ensuring New Zealand achieves its net-zero target while safeguarding energy security and affordability. We will achieve this by providing a platform for our members to come together to explore and refine the best ideas and policies that will unlock potential across the sector.

To help shape better energy and climate policy outcomes, we use our policy pathfinder and risk navigator – the energy trilemma framework and our energy system model TIMES-NZ – a collaboration of more than 60 partners across business, government, and academia. Both tools are incredibly useful for accessing the possibilities and consequences of our decision making today and tomorrow.

We hope readers will find this briefing a valuable contribution to decision and policy making.



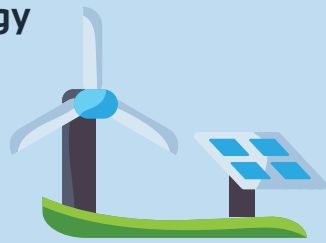
## Primary renewable energy

38% in 2017

41% in 2022

Source: MBIE, 2022

↑ +3%



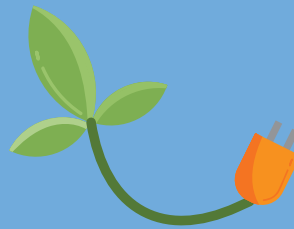
## Renewable electricity

82% in 2017

88% in Q1 2023

Source: MBIE, 2023

↑ +6%



## Energy carbon emissions

32.2Mt in 2017

31.2Mt in 2021

Source: Ministry for the Environment, 2023

↓ -3%



## Total emissions per million of GDP

332 tones per m of GDP in 2017

297 tones per m of GDP in 2021

Source: Ministry for the Environment, 2023

↓ -11%

## Residential electricity price

34.6c/kWh in 2017

31.5c/kWh in 2023

Source: MBIE, 2023, adjusted for inflation

↓ -9%



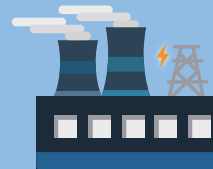
## Industrial electricity price rise

13.5c/kWh in 2017

15.6c/kWh in 2023

Source: MBIE, 2023, adjusted for inflation

↑ +16%



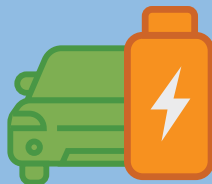
## EVs/Hybrids entering the fleet

2% in June 2017

37% in June 2023

Source: Ministry of Transport, 2023

↑ +35%



## Energy consumption per person

54,700 kWh in 2017

44,900 kWh in 2022

Source: Energy Institute Statistical Review, 2023

↓ -18%



## Investment attractiveness

NZ ranks **73rd out of 107**

**countries** in renewable energy investment attractiveness

Source: Bloomberg (Climatescope), 2022



## Energy intensity per \$ of GDP(USD)

4.6MJ in 2017

4.3MJ in 2020

Source: IEA, 2023

↓ -7%



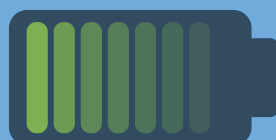
## Energy storage score

27.1/100 in 2017

23.6/100 in 2022

Source: World Energy Council, 2022

↓ -13%



## New electricity capacity

**400-500MW** of new capacity or demand response is needed every year until 2050.

This is the equivalent of building a new Clyde Dam every year.

Source: MDAG, 2022



## WHAT DOES A GOOD INVESTMENT ENVIRONMENT FOR THE ENERGY SECTOR LOOK LIKE?

## Delivers affordable, sustainable, and secure energy

Balancing competing priorities of the energy trilemma is the most important KPI for the energy sector. Compared with historical standards, modern economies are built on producing and consuming large amounts of energy. The affordability of such energy is vital in maintaining the standard of living we enjoy. Unfortunately, the importance of energy affordability is often realised when energy is no longer affordable.

**For example:** *The current energy crisis in Europe.* As Russia turned off its gas exports to the continent, sustainability fell in priority in the face of significant risk to security of supply and energy affordability. As a result, Europe's coal-fuelled power generation soared to keep the lights on and keep its industrial base alive. Protecting affordability, through allowing and enabling the market to choose the lowest-cost options to reach NZ's decarbonisation goals protects sustainability. Many options to decarbonise reside in preserving energy affordability. For example, the uptake of electric vehicles will be influenced by the price of electricity. As electricity will likely account for a larger share of households and businesses energy use, prices will likely affect uptake. However, if changes to the system are managed well, then energy prices such as electricity may not lead to significant price increases.

*BEC says: A good energy system allows and enables the market to choose the lowest-cost option, not only benefiting the climate but wider objectives such as improving living standards and ensuring security of supply.*

### Avoids reactive decision-making

It is inevitable that energy shocks will emerge in the future. Their size, timing and impact are unknown. The problem can suddenly erupt, consuming attention and encouraging decision-makers to act decisively in a reactive scenario. This is understandable in the face of crisis. However, reactive decisions can undermine long-term objectives, and create several unintended consequences, costs and problems - sometimes larger than the initial problem itself.

**For example:** *Energy price volatility.* In March 2022, sanctions on Russian oil sent petrol prices at the pump skyrocketing to over \$3 per litre. In the backdrop of increasing cost of living stresses, decision-makers were pressured to protect living standards. Officials had 24 hours to provide advice. Fuel duties and road user charges were cut by 25 cents. This was successful in alleviating higher petrol prices, but it undermined the signal that higher prices send motorists to reduce demand, while counteracting the purpose of the New Zealand Emissions Trading Scheme (ETS) to internalise external emissions costs. The total estimated forgone revenue of the fuel tax cut grew and each deadline became more politically unpalatable to end the initiative. The Ministry's retroactive assessment eight months into the cut found that fiscal support through transfers or other mechanisms would have been more efficient and equitable.

*BEC says: A good policy environment tries to avoid reactive and politically expedient decision-making as much as possible because reactive decisions often undermine New Zealand's long-term objectives while counteracting the effectiveness of existing policies.*

## Enhance future opportunities through long-term thinking

In contrast to reactive decision-making, long-term thinking alleviates a degree of unintentional uncertainty caused by government aspirations, actions, or lack thereof. Long-term thinking is about bringing together the entire energy sector to conceptualise the future - outlining the sector's vision, what needs to be done and

when - to achieve the vision. This reduces the risk of siloed thinking in a sector that is broadly interconnected and increasingly more complex. Strategising using robust analysis on what the potential trade-offs may be, what the future energy mix might look like and how this could unfold uncertainty, produces better decision-making. BEC has brought together more than 60 participants from across the public and private sector to develop an entire energy system model – TIMES-NZ.

**For example:** *All of Government Planning.* The Government's whole-of-energy strategy, combined with the Gas Transition Plan, is a good example of setting the course ahead and ensuring stable regulatory frameworks out to 2050 and beyond, strengthening foreseeability without reactively changing policies that unleash unintended consequences and costs, weakening investment confidence, and unintentionally slowing the reduction of emissions across the economy. It is evident that strategising should enhance and not limit future opportunities. Industries such as transport, primary, and residential sectors should be considered on a system-level strategy, making the likelihood of unexpected and consequential reversals, bans and regulatory measures low. For example, New Zealand could decide to ban or make it more difficult to extract minerals. Alternatively, the country could act strategically and acknowledge the value of supplying the minerals needed for the world's shift to more sustainable technologies by following countries like the United States, Finland, Canada, and Australia that want to secure supply through outlining rigorous strategies, partnerships and implementing easier permitting regimes. The ineffectiveness of reactive decisions, such as bans, has been emphasised in BEC's recent TIMES-NZ analysis which explored, among several sensitivities, the impact a coal ban would have on the energy system. The potential emission reductions resulting from a hypothetical ban were negligible while costs increased, with the likelihood of significant disruption to energy supply.

*BEC says: Long-term strategies help to alleviate the shortfalls that come with short-term decision-making. We recognise the need to continually remind the country of the long-term goals we are trying to achieve.*

Provides a stable regulatory environment that encourages investment

Investment in New Zealand's infrastructure is an essential ingredient for improving living standards in the long-term. This ranges from the building, maintaining, and upgrading of electricity or gas network infrastructure, to the production of energy itself. New Zealand's goal to lower our emissions across the energy sector will require investment and a regulatory environment that will encourage it. The extent of required investment is unprecedented. A recent Boston Consulting's analysis showed investments worth \$42 billion in generation, transmission and distribution are needed in this decade alone. However, New Zealand's small market, with low savings and capital markets that are relatively shallow, provides a barrier to realising this investment. In the absence of domestic savings, foreign direct investment (FDI) is vital, funding projects that might otherwise not be undertaken.

**For example:** *One factor that diminishes FDI is regulatory instability and uncertainty.* Bloomberg's Climate Scope ranks New Zealand 73rd of 136 countries for the most attractive markets for renewable energy project investment. Markets dislike risk and require higher compensation to reflect it. Regulatory instability and uncertainty can lead potential investors to seek better and more consistent investment opportunities elsewhere. Among several factors, tightened overseas investment rules, combined with arbitrary market interventions by way of bans and uncertainty associated with the ruling in or out of the Battery Project, a slow consenting regime, and its uncertain replacement in the future, sends a signal repelling FDI. Arguably more than ever, attracting FDI



## WHAT DOES A GOOD INVESTMENT ENVIRONMENT FOR THE ENERGY SECTOR LOOK LIKE?

should be a priority. Globally, countries are competing for materials, technology, and investment to meet the challenge of decarbonisation. For New Zealand to build at least 500MW of the required additional capacity each year, the regulatory environment must be conducive to FDI.

**BEC says: A good energy system has a regulatory environment that actively attracts investment.**

### Allows for the best solution to be chosen

Energy systems are inherently complex and interconnected. They involve quickly evolving technologies and generation sources, and fuel-types derived from various resources, minerals, and materials. New Zealand's recent energy history shows that generally, the energy system has worked hard to achieve a decent track record in balancing this complexity by being technologically agnostic, and not favouring one resource or technology over another. By doing so, New Zealand in recent years has been able to avoid costly subsidies and regulations that create distortion and the further regulatory complexity witnessed in other jurisdictions.

Preparing our energy system for more sustainability provides a significant opportunity to lower emissions across New Zealand's economy, while also improving supply security and minimising the system costs. Solutions range from a portfolio of various sources and do not reside in silver-bullets. Regulatory frameworks must allow, and not blockade, a diversity of solutions through enabling businesses to decide which technology they want to adopt if they themselves conclude it is economically viable.

**For example:** ETS will go a long way. New Zealand's ETS provides a technology neutral, efficient, and effective framework for decision-making, benefiting consumers in the long-term. This contrasts with subsidies for specific renewable energy that will likely displace non-subsidised forms of renewable energy and shift the subsidised 'costs' away from users and producers to general taxpayers. This is now even more likely, with growing uncertainty about assumed ETS revenue. However, for the ETS to do its job, we must regain confidence in the tool.

**BEC says: A good energy sector should involve a portfolio of decarbonisation solutions. Regulatory frameworks and rules should be neutral, minimising wasted resources and unnecessary costs.**

### Sends efficient price signals

Future proofing our energy system will require decisions dispersed across the sector and Government departments. No single group of decision-makers can observe and implement the best solutions. Instead, these decisions will come from many market participants and decision-makers who together will establish how much storage and generation is needed, forecast the extent of future energy demand and supply, identify when and where energy is needed and whether there should be a demand response or additional supply. These decisions become even

more complex with the uptake of demand-side response or virtual power plants. To coordinate decision-making in this complexity across the energy system, and support innovation within the system, price signals must accurately reflect the true cost and value of energy across different times and places. This contrasts with suppressing the true cost, which leads to inefficient investment decisions and increased levels of consumption, hurting consumers and the overall economy in the long-term.

**For example:** Understanding efficient price signals. The importance of efficient price signals, both now and in the future, is reflected in flexibility through demand-side response becoming more valuable as dispatchable thermal generation retires over time. MDAG, a group advising the Electricity Authority, has highlighted the need for tariff innovation and reform to enable demand-side flexibility, lower the transaction costs of offering flexibility and ensure consumers, with a range of preferences, receive the right signals to participate. The accuracy and efficiency of market prices will be vital to sending the right signals to reduce or shift consumption through smart controls on devices in businesses and homes, and for battery storage technology, including battery to grid technology. This could partially reduce the need for peaking plants, grid-scale storage, transmission, and distribution infrastructure, while reducing emissions and the system's overall cost, benefiting all consumers.

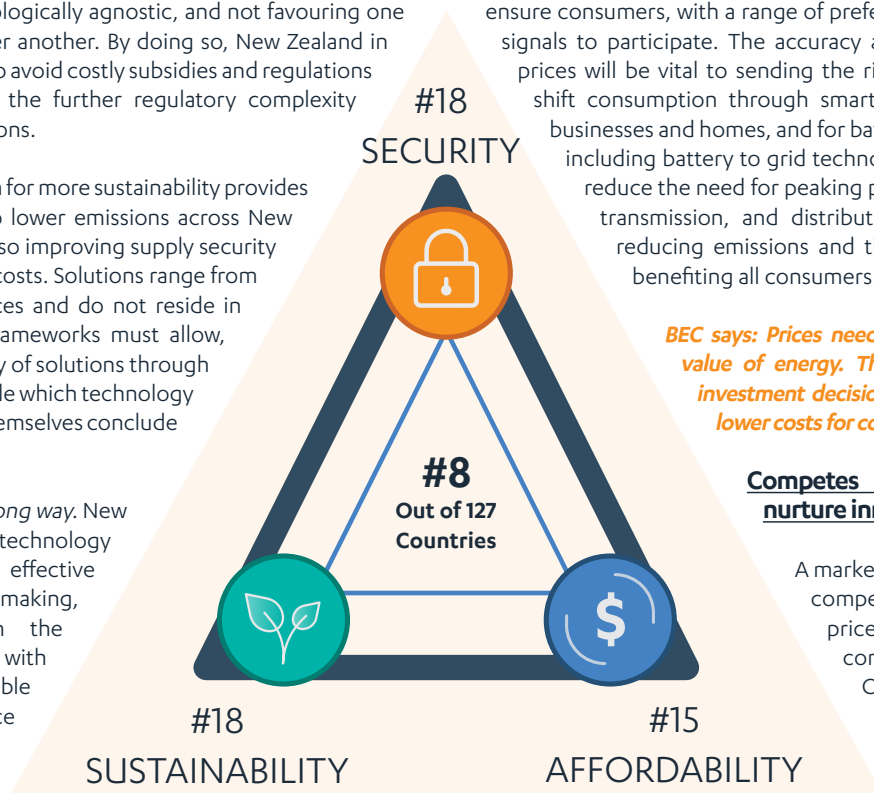
**BEC says: Prices need to reflect true cost and value of energy. This translates to efficient investment decisions, more innovation, and lower costs for consumers.**

### Competes to encourage and nurture innovation

A market that is built on adequate competition creates efficient price discovery, benefiting all consumers in the long-term. Competition displaces less efficient and more costly solutions with more efficient and cheaper ways of meeting consumer

demand. This occurs through choice – incentivising producers to innovate with the aim of displacing rival firms and participants. Innovation brings improvements in technology and delivers better outcomes across the energy trilemma: more reliability, improved environmental outcomes and lower prices for consumers. New Zealand's future energy system is likely to face more competitive pressures from distributed energy resources (DER), such as solar.

**For example:** The uptake of DER. A record 48MW of residential solar was installed in 2022, with installations growing by an average of 40% each year. This is only one example of innovation sprouting exciting opportunities for some consumers to become energy producers selling surplus electricity back to the grid. More Power Purchase Agreements (PPA) are likely to improve competition, encouraging new players into the market by reducing the risk of price volatility, providing stable revenue streams and greater certainty for investors. This will improve competition by enhancing the diversity of New Zealand's energy producers.







## FOCUS AREAS FOR THE INCOMING MINISTER

### #1 Replace and simplify the resource management regime

New Zealand's resource management regime is not fit-for-purpose. Attempts to streamline the Act to make it clearer and more workable have unintentionally made the Act complicated and unworkable. The Act had 383 pages when it passed in 1991, now it's more than doubled to 864 pages. Amendments have further confused the Act's ill-defined objectives, principles, and outcomes, creating a cumbersome process for obtaining consents. This has dampened investment, squashed projects without a considered examination of trade-offs, and led prolonged processes to metastasize into wider economic and social ills, be it housing shortages or energy infrastructure that is unnecessarily more expensive than it needs to be. Retaining the current regime or replacing the RMA with legislation that is even more complicated, inevitably leads to costly and time-consuming appeals to the courts and risks decarbonisation becoming yet another victim of unworkable planning rules.

Fixing the RMA is a difficult endeavour. The environment is important, but so are social and economic outcomes. Any new regime replacing the current RMA should do a better job at acknowledging property rights. Disregarding property rights by excessively limiting and restricting activity chills investment. Property owners should have the right to sufficient compensation for the regulatory takings created by restricting consent in the public interest. This is important as the current regime provides many parties with the right to dispute – especially those that are not directly affected by a project. They can place additional costs on others seeking consent, through delays and litigation, without facing most of the expense their dispute has caused. This misalignment in incentives can often override development in favour of the environment without compensation for the regulatory takings. Inevitably, there will always be a degree of clashing values underlying any environmental dispute, but the new regime should aim to minimise the number of disputes. Objectives and outcomes should provide more clarity and remove unnecessary complexity, minimising the likelihood of arbitrary rulings and costly litigation.

Any replacement of the RMA must also dispel the notion of hard 'environmental limits.' Too much focus on environmental effects ignores opportunity costs to individuals and society. Allowing activities and the use of resources, and their subsequent outcomes, involves trade-offs being assessed for their costs and benefits. Section 32 of the Act, outlining the cost and benefit test, is not consistently enforced. The new Act must embed a strong cost and benefit test to assess all trade-offs. A wind farm may result in the loss of some indigenous birds or may undermine the amenity value of a ridge, yet it provides renewable electricity at a low marginal cost to the benefit of consumers and the environment with fewer emissions. A new biogas facility would help reduce emissions and waste to landfill, but it might encroach on a neighbouring wetland. It is paramount that councils should better assess all trade-offs, including the forgone value experienced by the property owner, the local community and wider society if a consent is to be restricted or delayed.

***BEC says: Fixing the RMA is difficult. The environment is important, but so are social and economic outcomes. The RMA is one of the largest, if not the largest, regulatory barrier facing New Zealand's ability to meet its emissions targets. The extent of renewable energy projects that will be built is unprecedented. Replacing and simplifying the Resource Management regime is a matter of top priority if New Zealand is to achieve this unprecedented build.***

### #2 Actively attract investment and skilled labour into New Zealand

Achieving New Zealand's climate targets – a 50% reduction in net greenhouse gas emissions by 2030, and net-zero by 2050 – will require decarbonising a large portion of total energy consumption. Over the coming ten years, and beyond, to meet New Zealand's climate aspirations, the country is likely to experience an unprecedented build of renewable energy projects. To be successful, New Zealand will need to attract international skills and investment.

In BEC's TIMES-NZ model, the percentage of renewable energy demand under Tui – a scenario where climate change is one of many pressing issues – could expand from 35% in 2018 to 67.3% by 2050, and under Kea – a scenario where climate change is prioritised – renewable energy demand could expand to 78.5% by 2050. Among this increase in renewable energy, is an unprecedented build of electricity generation and transmission infrastructure. The Climate Change Commission (CCC) has suggested in its recent advice to inform the Government's second emissions reduction plan, that New Zealand needs over 10.5TWh of extra generation capacity by 2030 to align with our emission budgets.

Work published by the MDAG group last year, found that we will have to build 400-500 MW of new capacity or demand response every year until 2050, to meet projected demand growth and replace the fossil-fuel used in our current system. Meanwhile, work done by BCG last year, found that getting us to about 98% renewable electricity in 2030 requires an investment of about \$42 billion in the decade.

According to the IEA, last year, global investment in energy accounted for \$2.4 trillion US, and 80% of it accounts for renewable energy, grid, and storage. With global investment in renewable energy skyrocketing, we can be reassured that this will bring as much opportunity as it throws challenges at us. Globally, countries are competing for materials, technology, talent, and investment to meet the challenge of decarbonisation. Bloomberg ranks New Zealand only 73rd of 136 countries for the most attractive markets for renewable energy project investment, and energy leaders are struggling to attract some of this investment to New Zealand.

With respect to openness to FDI, the OECD ranks New Zealand as its most restrictive member. Inward investment, as a percentage of GDP, has remained relatively flat over the past decade, while the OECD average has nearly doubled, bypassing New Zealand. A recent NZIER report commissioned by BusinessNZ showed that the country's lack of FDI has implications for access to and cost of capital, limiting New Zealand business potential and therefore positive spillovers to other areas of society.

Attracting investment (FDI) and talent into New Zealand should be a top priority. For New Zealand to build at least 500MW of required additional capacity each year, the equivalent of building a new Clyde dam every year out to 2050, the regulatory environment must be conducive to FDI. New Zealand will need open, simple, responsible, and permissible immigration settings to attract international talent.

***BEC says: There are many ingredients involved in attracting overseas investment and talent, these include factors beyond energy policy. Loosening the Overseas Investment Act could help reduce the friction and regulatory burden of accessing overseas capital. Reviewing and amending current legislation will be a careful balancing act between national security and attracting more investment. Attracting talent, New Zealand needs open, simple, responsible, and permissible immigration settings.***





## FOCUS AREAS FOR THE INCOMING MINISTER

### #3 Long-term measures are needed to manage energy system resilience

Optionality is the critical factor to fully unlocking energy system resiliency. Holding multiple renewable energy sources in our system will provide resilience, reducing the overall costs and risks associated with relying solely on one energy source. A broad range of fuels will also better utilise New Zealand's abundance of renewable energy sources. In May 2023, BEC's TIMES-NZ sensitivity analysis revealed that keeping fuel options open led to emissions reduction in the lowest cost combinations and a reduction in fossil fuel use over time.

For many years New Zealand has been fortunate to have a diversity of energy supply which has provided the country with great resilience. As a country embracing electrification to accelerate the journey to net zero emissions, it is crucial to preserve this diversity. Domestically sourced natural gas and an isolated grid provide some degree of energy self-sufficiency. This piece of self-sufficiency, molded by history and geographical seclusion, offers some resilience against shocks beyond New Zealand's shores. On the flip side, fuel import dependency and isolation make us vulnerable to supply disruptions, both domestically and internationally.

Electricity is growing to be a larger proportion of total energy consumption and our economy, and daily lives, have become increasingly reliant on its stability. While electrification in the New Zealand context bodes well for the climate, it faces challenges for resilience. This emphasises the need for resilience of electricity infrastructure, particularly in the face of extreme weather arising from climate change. Cyclone Gabrielle's impact on the network in Hawkes Bay and Gisborne is a stark reminder of this importance. This concern extends to natural disasters with the potential for earthquakes and volcanic eruptions further underscoring the robustness of the HDVC cable and transmission infrastructure scattered across the country.

Weather resilient infrastructure requires a coordinated effort between the Crown, local authorities, regulators, and others. This also requires enabling transmission and distribution network operators to possess the necessary means to fortify the grid. However, the Government and local authorities have a broader role to play in strengthening energy infrastructure beyond the grid, encompassing the reinforcement of seawalls, riverbanks, and stormwater systems. The Government's National Adaptation Plan, and its additional work, is vital in guiding these endeavours, enabling effective risk assessment, prioritisation of upgrades, a cost and benefit analysis of such investments, and determining who bears the financial liability.

***BEC says: The Government has a significant role in improving resilience across the energy system, by forming a coordinated approach across public and private sectors to explore what supporting infrastructure needs to be built, upgraded, maintained, how we pay for it and when it occurs. Resilience extends to maintaining the optionality of many fuel sources. The Government can ensure optionality by removing regulatory barriers that delay the development and deployment of new technologies and provide transparency throughout the policy development process.***

### #4 Bring back confidence in the Emissions Trading Scheme

The ETS must be allowed to do its job to successfully reduce carbon emissions across industry, energy, and transport. If we want the ETS to remain our key policy tool in achieving New Zealand's net-zero greenhouse gas emissions by 2050, are serious about acting on climate change, and if we comprehend the impacts of climate change, then we cannot afford to debate whether we should focus on reductions, removals, or adaptation. These will all have to work together in harmony. Since the market is formed by government, its price is significantly influenced by signals, or sometimes the lack of, sent by government's preferences and policies. The most recent illustration of the impact policy changes have on the market is the ETS review. Market confidence has since plummeted. Confidence in the ETS has been undermined so much that foresters are now not willing to plant trees and participants seeking to decarbonise are waiting for more information to justify new and continuing investment. Until an outcome is reached, market confidence, and the willingness to invest, will likely remain low.

The 2020 reforms, which introduced a cap and sinking lid on auctioned units, gave the ETS teeth. And the teeth were biting. Businesses received clear signals to reduce their emissions, and the impact was notable. But today the carbon price trajectory appears uncertain because the ETS principles have not been safeguarded. The ETS offers participants flexibility, particularly those with limited and expensive emissions reduction options. Flexibility is crucial as each business has a unique decarbonisation pathway. The ETS ensures that emitters prioritise cost-effective abatements first and gradually adopt other solutions as carbon prices increase or more commercially viable technologies become available, incurring lower capital and operating costs. Retaining the current ETS structure and allowing for a combination of offsets and reductions, safeguards against costly approaches in achieving net-zero and ensures all options are on the table.

Carbon Capture Utilisation and Storage (CCUS) technology also offers an opportunity to remove emissions efficiently. The technology is now mature and available for a wide range of hard-to-abate industries. The Intergovernmental Panel on Climate Change (IPCC) has underscored that the world needs a rapid expansion of CCUS to meet global reduction targets and stay below a 1.5-degree temperature rise. We are aware of international work underway to resolve the recognition of CCUS in national emissions budgets and to resolve any inconsistency while maintaining the integrity of the ETS. We suggest a mechanism should be developed to allow equivalent recognition of sequestered volumes of carbon emissions. Any concerns about security of sequestration and long-term abandonment of obligations should be addressed in a wider workstream and not as part of ETS functionality.

The ETS, being the key tool in our climate change arsenal, will evolve over time. However, we must carefully consider the potential outcomes, the counterfactuals, and the time-consuming nature of reforms. Constant rule changes and tool amendments have damaged the ETS's credibility. A gap between market expectations and policy decisions has not helped. During the period between the Climate Change Commission's recommendations on auctioned unit settings and the Government's decision, the market responded with uncertainty. In late 2022, the auction price increased as participants likely hedged, expecting more aggressive unit settings that didn't materialise. Subsequent auctions in 2023 did not clear due to low demand, driven in part by this hedging, uncertainty about the scheme's future composition, unit settings' trajectory, and conflicting political rhetoric about the scheme.

***BEC says: Constant setting changes, frequent amendments, and reviews, have damaged confidence in the ETS. This weakens investment in decarbonisation. The sinking lid and price settings should be set out over a longer period, with settings being reviewed less frequently. The ETS must include options that extend beyond forest sequestration, such as CCUS technology.***



# About BEC

BusinessNZ Energy Council (BEC) represents the World Energy Council in New Zealand. BEC is a brand of BusinessNZ, New Zealand's largest business advocacy body. Together with its members, BEC is shaping the energy agenda for New Zealand and globally.



BEC is a cross-section of leading energy-sector business, government and research organisations taking a leading role in creating a sustainable, equitable and secure energy future. BEC also takes a leading role in bringing together young professionals from across the sector through the Young Energy Professionals Network (YEPN).

## Our Team



**Hon. David Caygill**  
Chair



**Tina Schirr**  
Executive Director



**Levi Gibbs**  
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Executive Assistant



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## Our Members

