



ASIA

NEW ZEALAND

A widening infrastructure deficit is straining decarbonisation

The collective importance placed on **infrastructure** has grown in recent years and remains at the forefront of the sector's concerns. It is ranked an issue with the highest degree of impact with the most uncertain outcome. New Zealand faces an infrastructure deficit, with the population growing fast but the delivery of vital infrastructure has not kept pace.

Both local and central government have limited options for gathering revenue to fund infrastructure, and private companies will require substantial capital for infrastructure for greater electrification. Challenges extend to shortages in skilled workers, along with prohibitive permitting processes and shifting policy priorities, and have undermined stability crucial for long-term projects.

On the flipside, efforts are currently underway to speed up development and enhance coordination. The Government has pledged to establish a National Infrastructure Agency to coordinate funding, delivery, and procurement. Concurrently, legislative efforts are being pursued to accelerate permitting procedures, aiming to expedite the construction of projects of regional and national significance. This extends to generation projects, distribution, and transmission infrastructure.

Grid and network could slow new supply

Transmission Grids are viewed with less uncertainty, however, with a high priority of action. Potential delays to connecting large-scale generation to transmission networks could be a bottleneck for new supply and efforts to reduce emissions. While solar and wind projects have become more commercially viable, the surge in grid enquiries has led to a high demand in new connections. Notwithstanding the need to upgrade and expand the grid and network, affordability concerns are prominent. The risks of 'over-build' must be managed appropriately with non-network solutions being important to help flatten demand for new poles and wires.

Focus shifts to more climate adaptation

In recent Issue Monitor surveys, strong focus has been placed on managing climate change, particular through mitigation. This year, emphasis has shifted to **climate adaptation**, which is now a critical uncertainty with a high impact. Conversely, climate mitigation has slightly dropped on the priority list compared to the last survey iteration of 2022. It is clear leaders now want to do the necessary work to achieve mitigation and advance promptly. Recent weather events causing significant damage to infrastructure have underscored the urgent need for a more concerted effort to enhance climate resilience. This issue links strongly with the need for more **infrastructure**.

It highlights that we must allocate resources wisely to build resilient infrastructure. While this investment is crucial, it is essential to balance it with affordability for consumers. The Government views adaptation as a legislative priority requiring cross party support. The details about their approach are preliminary. Questions about who will bear the cost of adaptation and assume authority are yet to be detailed.

A suite of energy storage solutions for a more volatile system

Energy storage remains a pressing priority for New Zealand. The country's electricity system, largely reliant on hydro-generation, faces persistent dry-year risks, compounded by constrained gas supply and escalating peak demand. Presently, the system confronts heightened supply-side risk, including an anticipated natural gas shortfall and heightened generation volatility due to reduced fossil fuel generation and more intermittent supply.

With increased electrification, the economy will become more vulnerable to supply disruptions and outages. A diversified supply mix incorporating various fuels is imperative, with **storage** emerging as a pivotal component in enhancing security. A more diverse range of fuels extends to e-fuels like e-methanol and sustainable aviation fuel.

Recognising the need for greater resilience, the Government has emphasised a shift towards bolstering supply security against both domestic and international shocks, a sentiment reflected in this survey. The previous Government enacted legislation requiring increased onshore stockholding of imported refined oil.

Additionally, the electricity market regulator has explored options to better incentivise firming capacity and facilitate the seamless integration of battery storage into the grid.

The Government has also outlined its plans to release a fuel security study aimed at implementing pragmatic measures to improve New Zealand’s worsening energy security. Improving security while balancing sustainability is a delicate task – but it remains crucial to protect consumers and the wider economy.

Affordability becomes prominent as prices pinch

Affordability has consistently ranked relatively high for New Zealand, both as a critical uncertainty and actionable priority. This year, affordability has become even more prominent. Wholesale electricity and gas prices persist above historical averages, compounded by carbon prices and efforts to expand electricity infrastructure. This situation is exacerbated by the backdrop of high inflation and **supply chain constraints**. The latter was emphasised in this year’s survey. Accessing supply faces delayed timelines and higher costs.

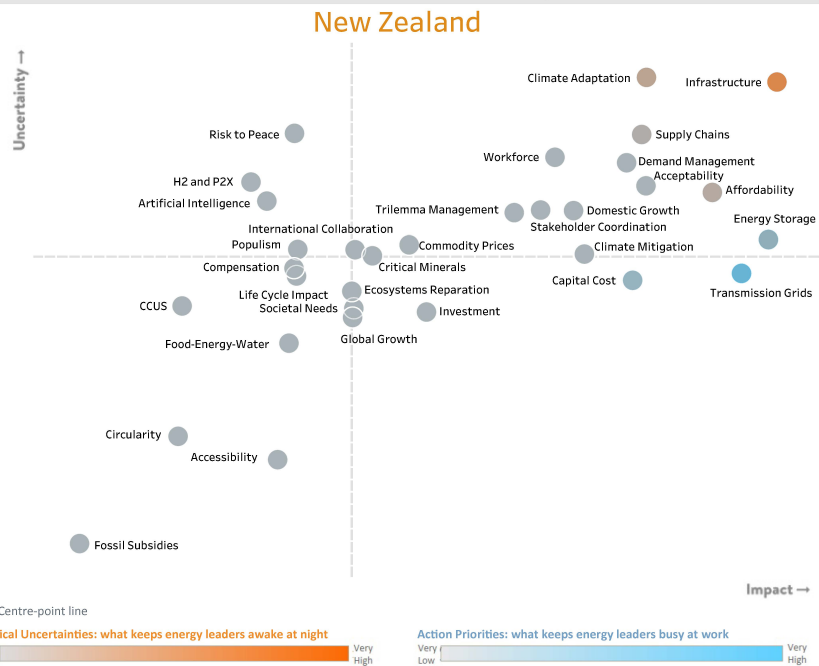
While residential prices are somewhat insulated due to hedging, industrial players are grappling with high prices. Some production has been curtailed. Others have shut entirely. Sustained price pressure is unsustainable. In response, the Government is concentrating on unlocking supply by lifting a ban on offshore oil and gas exploration, investigating options to improve investment confidence in the upstream oil and gas sector and streamlining consent processes to unlock more renewable generation to address affordability concerns.

Emerging leadership on integrating people and communities in the energy transition

Integrating people and communities into the energy transition is vital for success. Notably, there’s a trend towards enhanced coordination among industry players, addressing common challenges and sharing learnings. Efforts are being made to bridge the gap between high-level discussions and public understanding by simplifying technical concepts into relatable terms. Leaders highlight the positive impact of the transition, showcasing success stories like local solar installations to inspire engagement.

Going forward, we see the critical and emerging role about informing people about the costs and trade-offs. This includes informing the consequences of inertia, such as environmental degradation and economic vulnerabilities, underscoring the urgency for proactive measures. This integrated approach fosters trust, and participation, essential for a successful and sustainable energy transition.

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