

2024 World Energy Issues Monitor Release & Highlights from WEC26 Rotterdam



WORLD ENERGY ISSUES MONITOR 2024

Key Stats

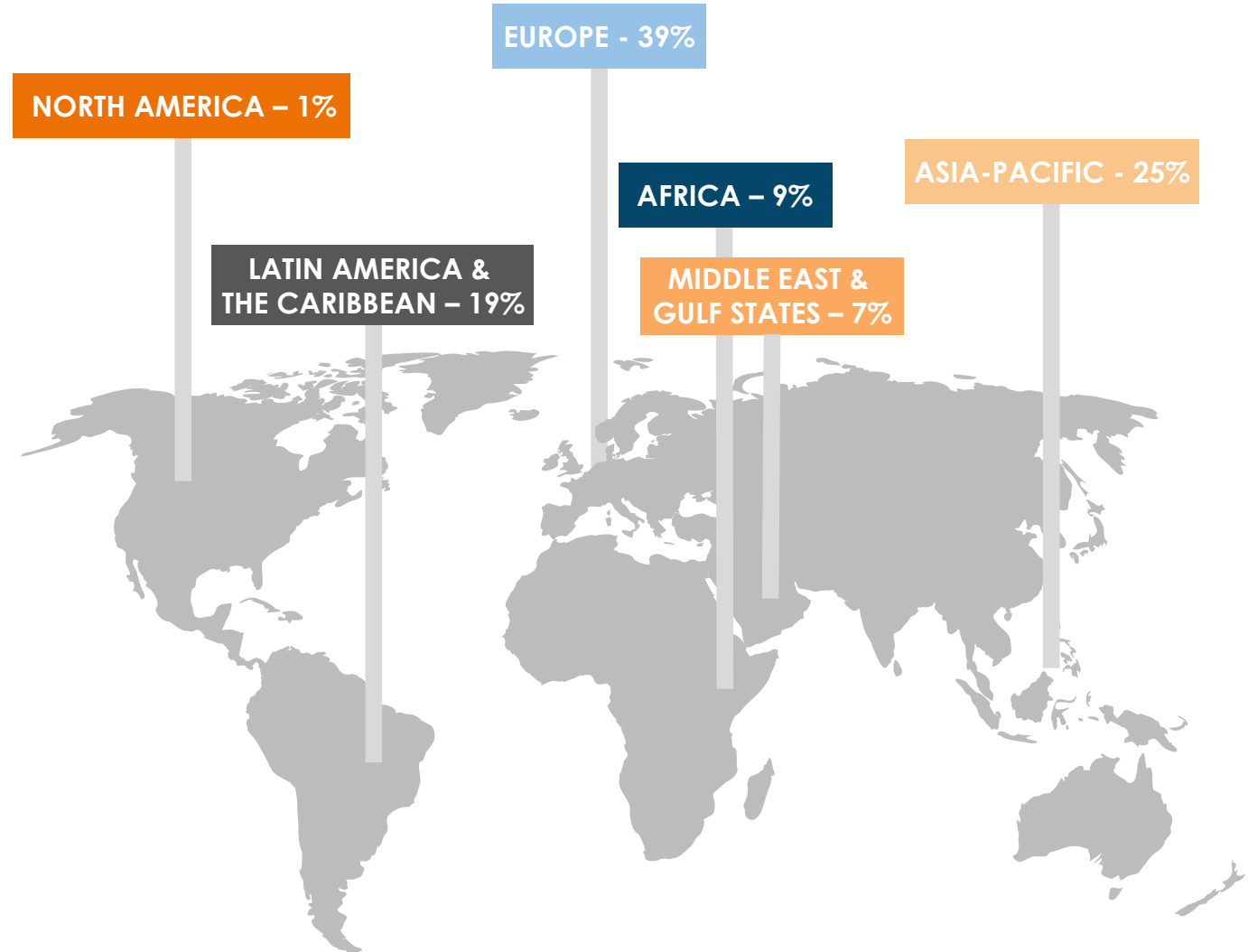
Combined views of **nearly 1,800 energy leaders and shapers.**

Over 100 countries from **six world regions** represented.

40 assessments of **country-level energy transitions.**

266 Future Energy Leaders and Start Ups' perspectives.

Views of **12 energy and energy-adjacent sectors** represented.



Issues Monitor Tool Overview

WHAT is the World Energy Issues Monitor?



Annual survey of **energy decision makers' perspectives**



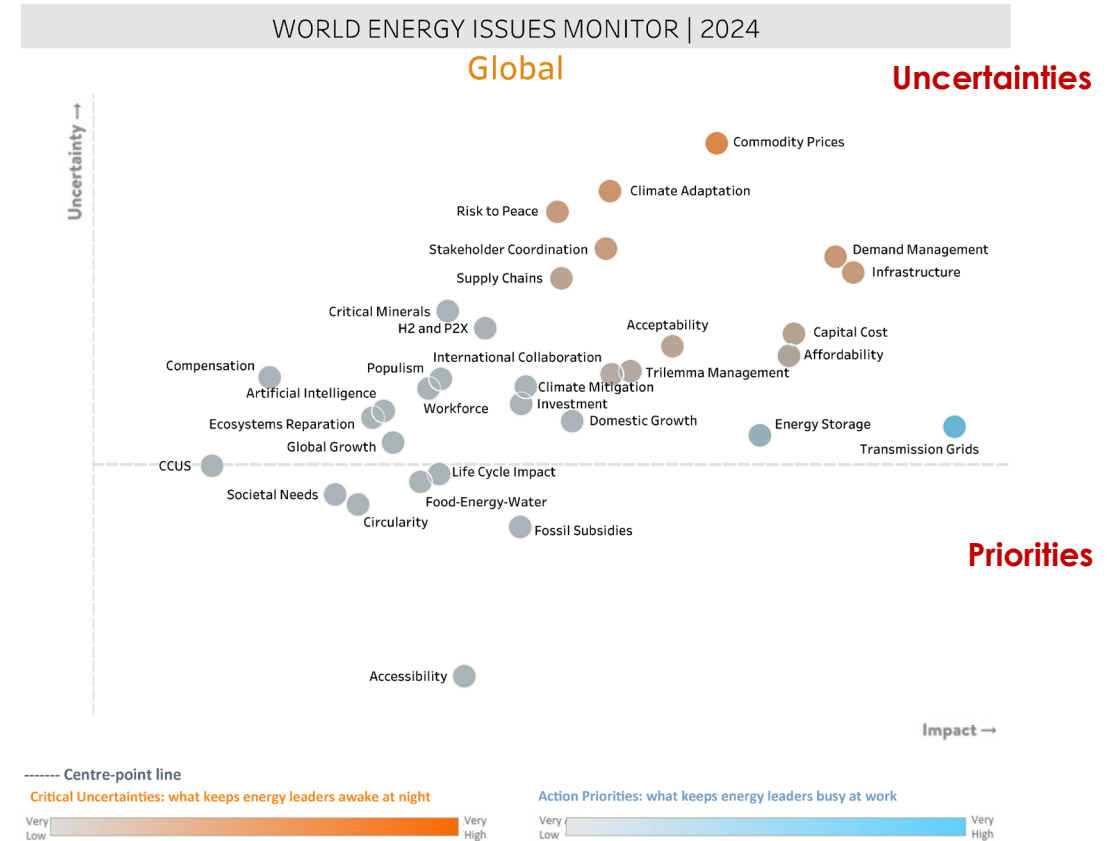
Horizon scanning tool of national, regional and global energy transitions



Provides common definitions for **uncertainties** and **action priorities** faced by energy energy leaders



Tracks emerging, persistent and changing energy issues – tracking Issues since 2009



Topics = Issues covered in our survey

Note: issues have been revised to ensure relevance to fast-evolving energy transitions and Humanising Energy agenda. Issues with an (*) can be tracked from previous surveys.

Geopolitical Issues

1. Risk to Peace*
2. Supply Chains
3. Critical Minerals
4. Investment
5. Commodity Prices*
6. International Collaboration*

Economic Issues

7. Capital Cost*
8. Global Growth
9. Domestic Growth*
10. Workforce*

Societal Issues

11. Accessibility*
12. Affordability*
13. Acceptability
14. Societal Needs
15. Stakeholder Coordination
16. Populism

Regulatory Regimes

17. Fossil Subsidies*
18. Infrastructure
19. Demand Management
20. Trilemma Management

Technology Gamechangers

21. Artificial Intelligence*
22. Energy Storage*
23. Circularity
24. Transmission Grids
25. CCUS
26. DAC
27. H2 and P2X*

Environment and Climate Change

28. Food-Energy-Water*
29. Climate Adaptation*
30. Ecosystems Reparation*
31. Climate Mitigation*
32. Compensation
33. Life Cycle Impact

WHY is the IM important to decision-makers?

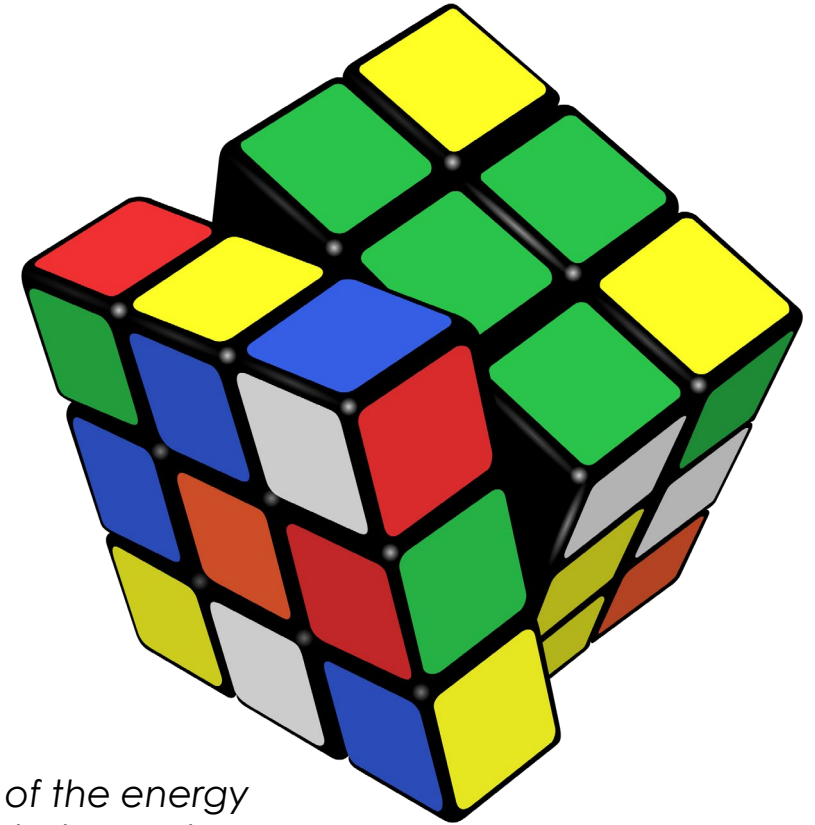
In a world where the demands for secure, affordable and sustainable energy are ever-increasing, global and national energy systems are showing signs of deficiencies and strains everywhere. There is an **urgent need for collaboration across the entire energy ecosystem** to redesign energy systems that enable the improvement of billions of lives on a healthy planet.

1. As an essential tool for **navigating the complexities and uncertainties faced by energy leaders**, the World Energy Issues Monitor prompts a reconsideration of assumptions regarding the key drivers shaping energy transitions.
2. The World Energy Issues Monitor enables decision-makers and influencers to **drive meaningful action and collaborate on key priorities**. Through cross-country and over-time comparisons and discussions, valuable progress and experiences can be shared, fostering informed decision-making.
3. The Issues Monitor underscore the imperative to **lead with diversity, leveraging and learning from differences**, and fostering quality dialogue to reconcile divergent perspectives and enable collaboration tailored to each distinct context.



HOW to utilise the results?

- Convene and connect stakeholders. **Initiate collaboration on key action priorities** at national, regional, and global levels.
- **Set an impactful agenda for your organisation** – annual or multi-year – including impactful projects and dialogues.
- **Stay on top of critical uncertainties** and prepare for disruptions – together.
- Compare results with other regions and countries. Where can you **learn from their experiences?** Where can you **share your learnings and solutions?**
- Track the evolution of issues over time and **explore emerging trends and risks** in your country, region and the globe.



“Energy Issues Monitor is like to an energy Rubik's Cube, offering a multifaceted view of the energy landscape where each issue represents a colourful facet, yet only a portion of the whole can be examined at a time, providing a snapshot of emerging trends and transformations.”

2024 Survey Results

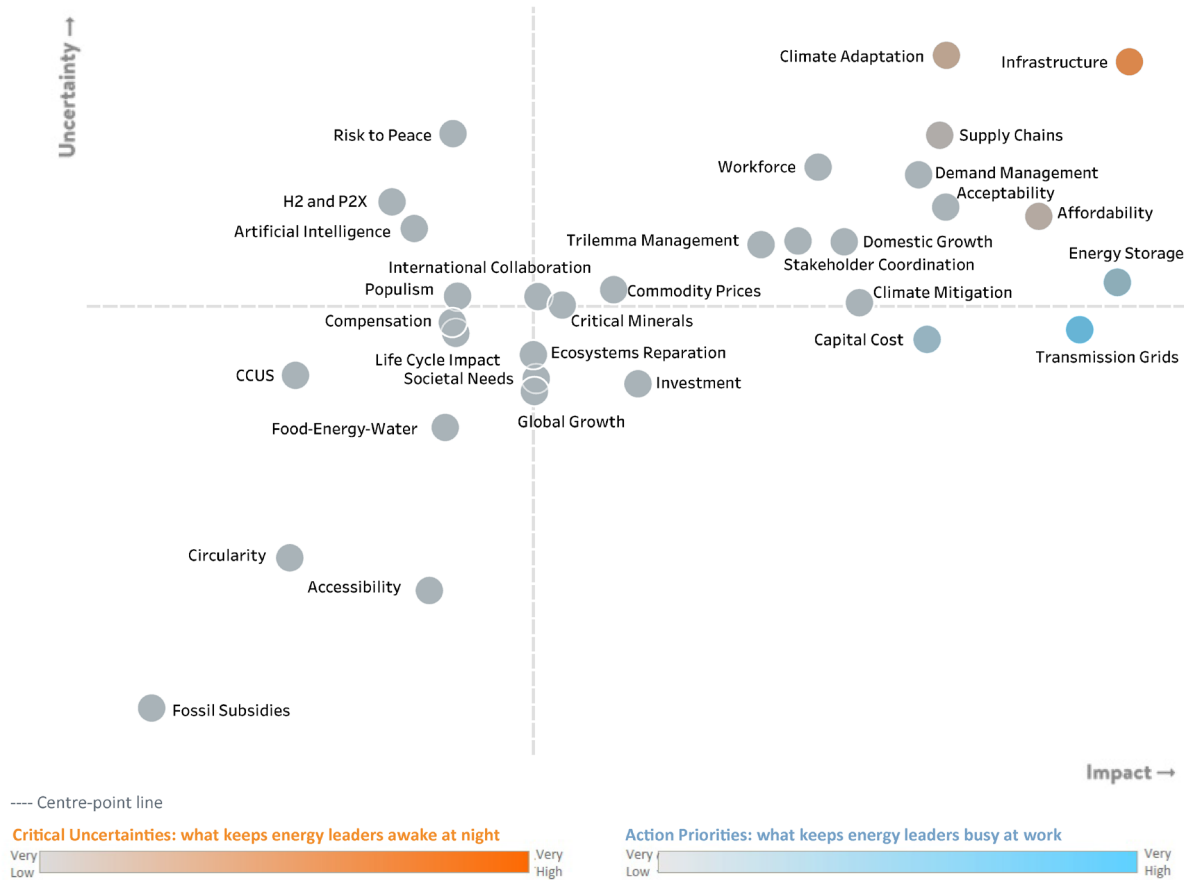
Embracing diversity and disruptions: Navigating complexities with insights from the 2024
World Energy Issues Monitor

NEW ZEALAND HIGHLIGHTS

Note: 105 CEOs and Senior Leader Surveyed

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New Zealand

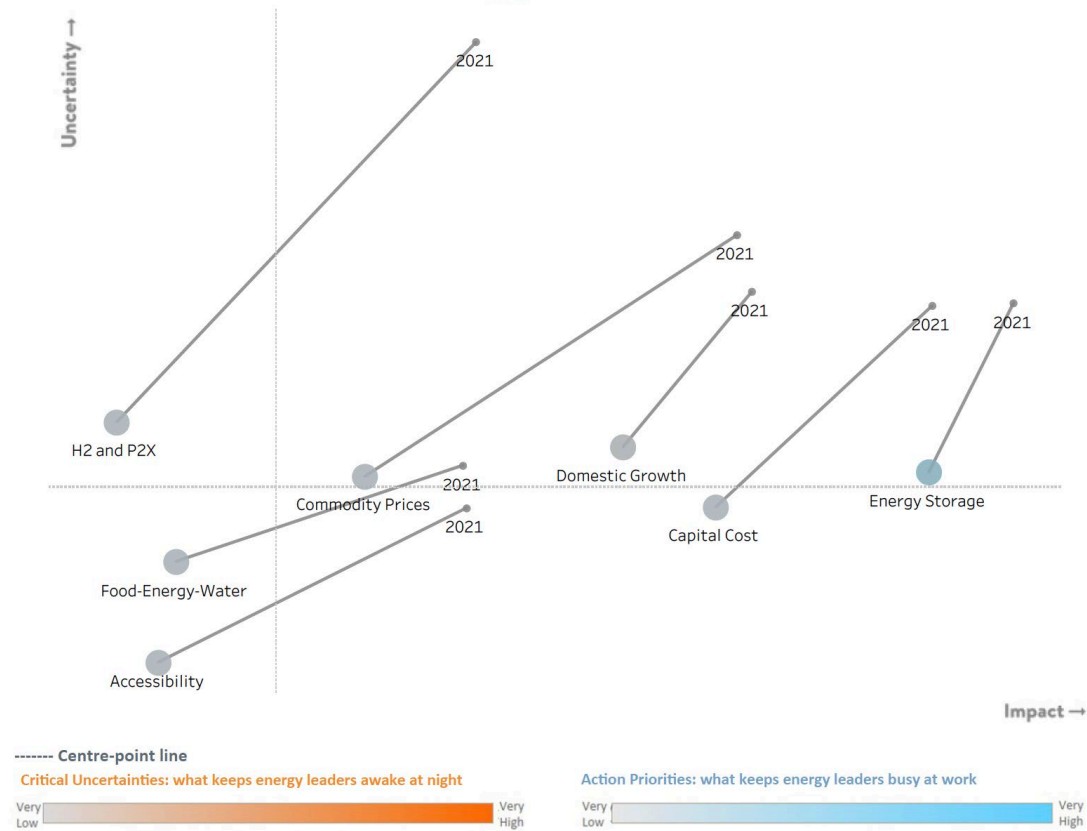


- Top 4 **Critical Uncertainties** for New Zealand
 - **Infrastructure:** NZ grapples with a widening infrastructure deficit as demand growth outpaces infrastructure development.
 - **Climate Adaptation:** focus is shifting to climate adaptation due to weather-related damages, emphasizing the need for resilient infrastructure while maintaining consumer affordability.
 - **Demand Management:** Considering growing peak demand pressures, DM is growing on impact and uncertainty at the same time
 - **Supply Chains:** High inflation and supply chain constraints impacting affordability and electrification.
- Top 4 **Action Priorities** for New Zealand
 - **Transmission Grids:** are a high priority, with concerns over delays in connecting new generation to networks potentially hindering supply and emission reduction efforts.
 - **Energy Storage:** is critical for NZ, with its hydro-dependent electricity system at risk from dry years, gas constraints, and peak demand pressures.
 - **Capital Cost:** have shifted from critical uncertainty to action priority, given its impact on affordability
 - **Climate Mitigation:** remains important action priority

NEW ZEALAND'S BIGGEST MOVERS

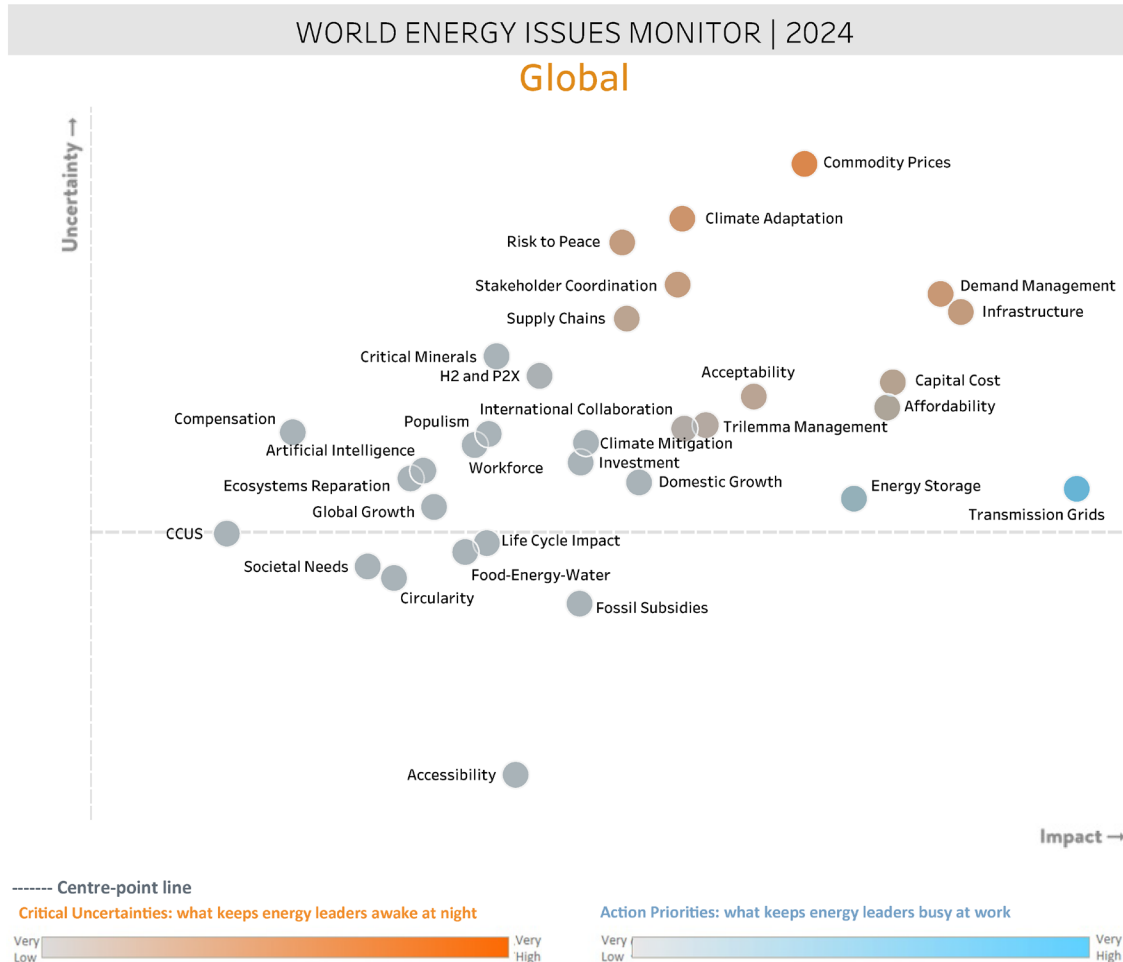
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New Zealand - Biggest Movers 2021-2024



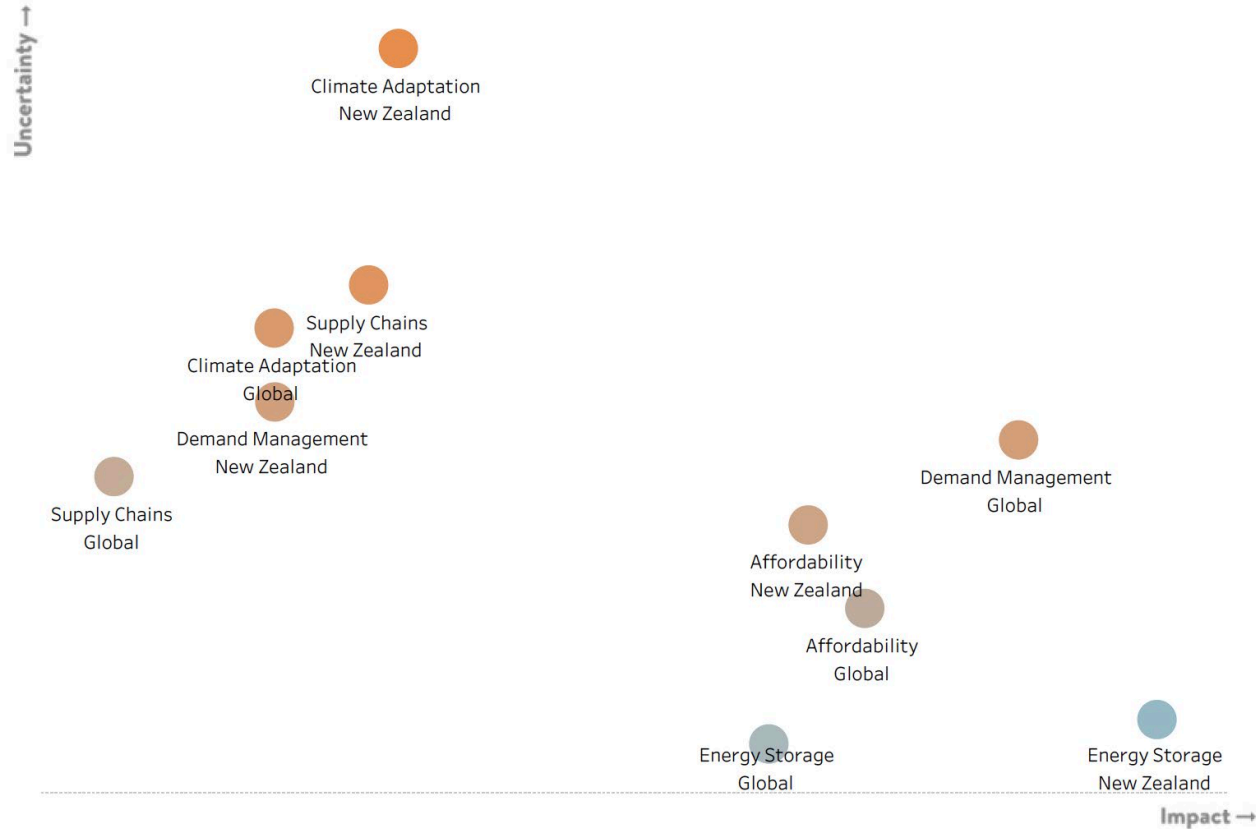
- Overall, the biggest movers show a decrease in uncertainty between over the last three years.
- **Biggest movers:**
 - Energy Storage,
 - Capital Cost,
 - Domestic Growth,
 - Accessibility,
 - Food-Energy-Water,
 - Commodity Prices, and
 - H2 and P2X

GLOBAL HIGHLIGHTS



- Globally **Geopolitical** issues such as **Commodity Price, Risk to Peace** and **Supply Chains** are tracking at high uncertainty.
- **Energy security** concerns have evolved beyond conventional supply side security to **demand driven shocks and disruptions** and the **impacts of climate change**.
- **Transmission Grids** are captured as top priority and upgrades are needed urgently.

Comparison New Zealand - Global



- **Climate Adaption and Supply Chains** are both causing more uncertainty in New Zealand compared to the rest of the world
- Globally, **Demand Management** shows higher impact compared to New Zealand.
- **Energy Storage** surfaces higher on the priority list compared to the rest of the world
- Affordability is tracking similar

----- Centre-point line

Critical Uncertainties: what keeps energy leaders awake at night

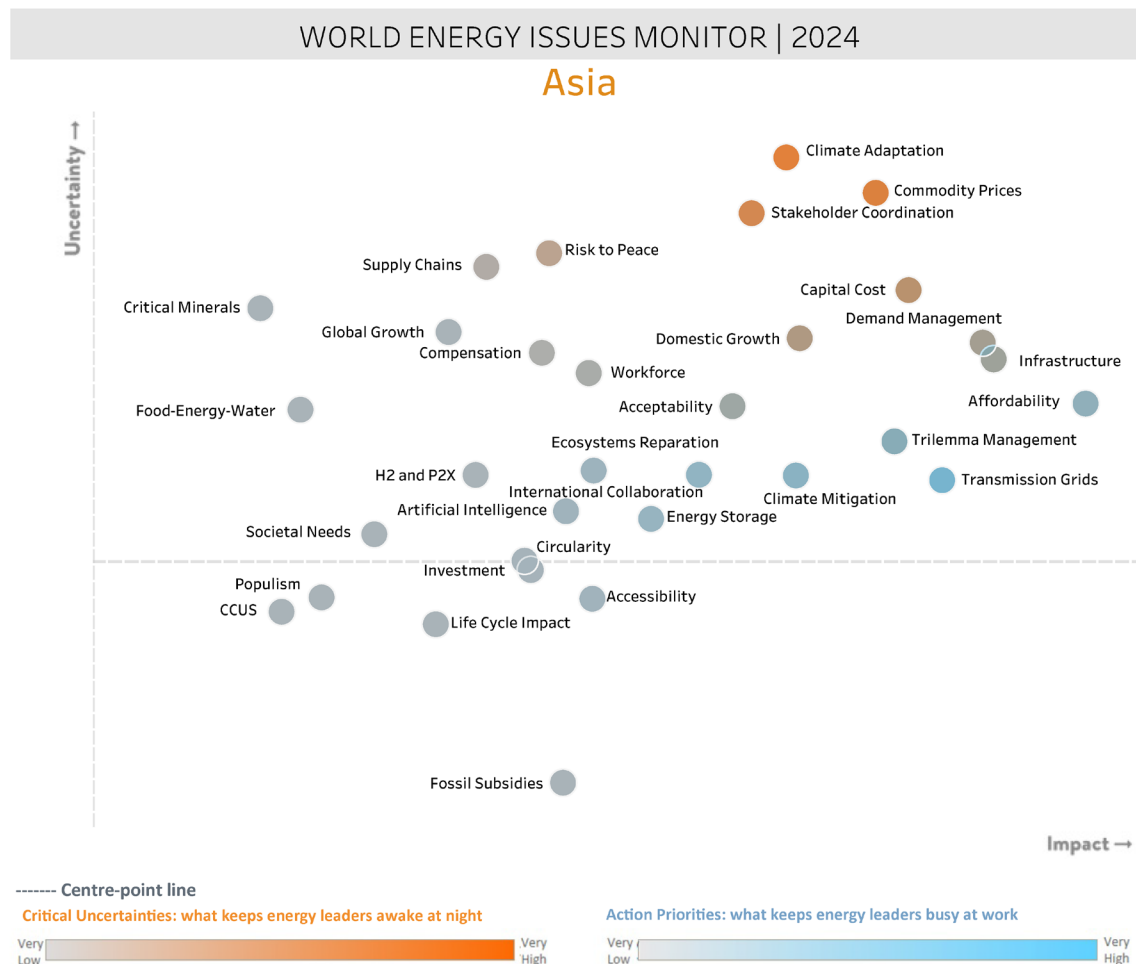


Action Priorities: what keeps energy leaders busy at work



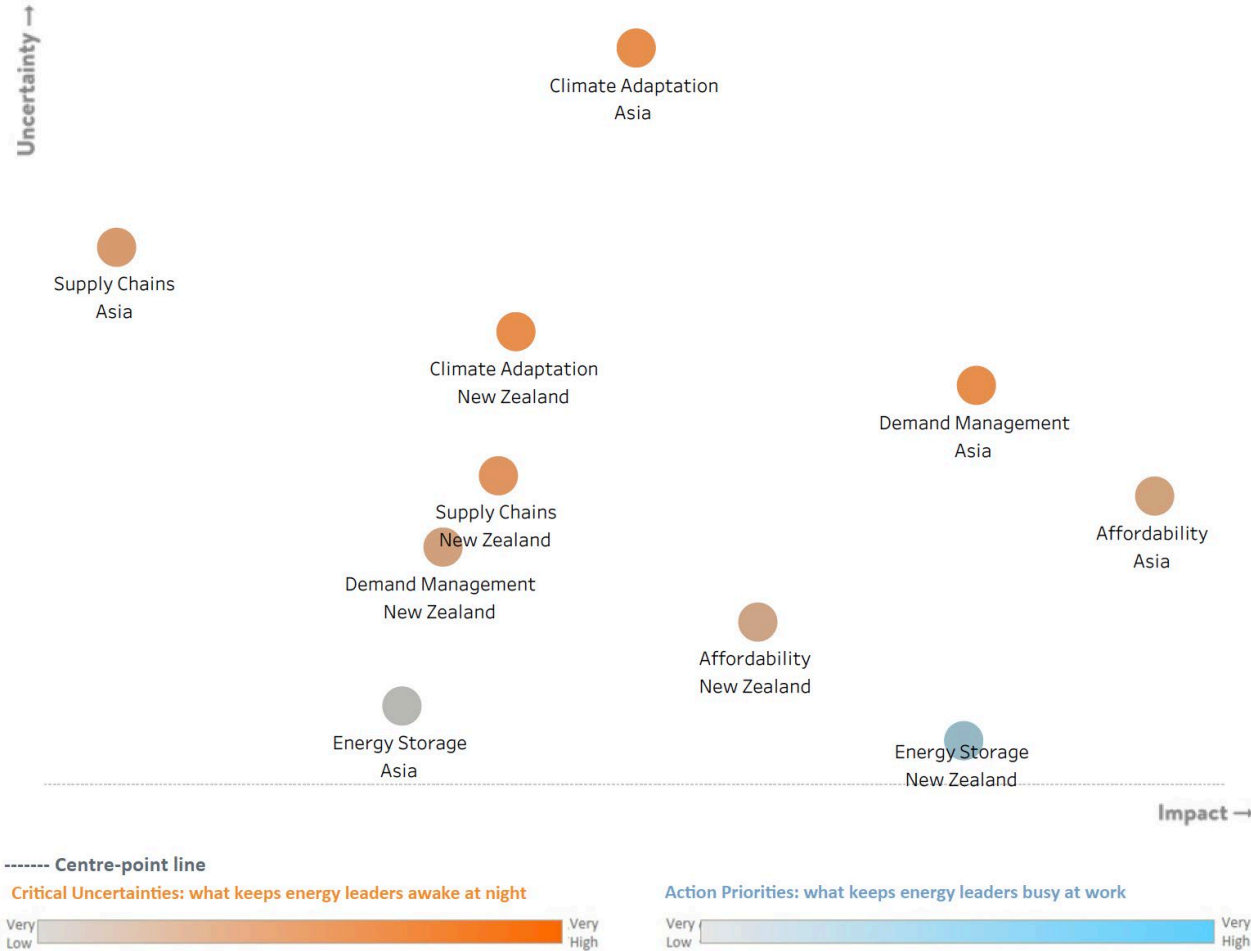
ASIA HIGHLIGHTS

Note: Asia includes countries from the Pacific (e.g. New Zealand)



- In Asia, **Climate adaptation, Commodity Prices and Stakeholder Coordination** are identified as critical uncertainties.
- **Stakeholder coordination and collaboration** emerges as new critical uncertainties, requiring leadership attention and action.
- **Demand management, infrastructure, and affordability** starting to shift to action priorities
- Bottlenecks related to **critical minerals** and metals, while uncertain, are perceived to have a lower impact compared to the global average.
- **Transmission Grids** surface as the top priority
- Fossil subsidies are addressed within the action domain.

Comparison New Zealand - Asia



- Across Asia, **Climate Adaption** is the number one topic signaling increasing uncertainty and impact
- While **Supply Chains** surfaces as an issues of alert, it appears to be one with less impact in the region
- Similar to the global comparison, New Zealand considers **Energy Storage** more of an action priority compared to Asia.
- **Affordability** and **Demand Management** are important issue to the region, even more so than in New Zealand

