



World Energy Issues Monitor 2016 New Zealand and the World



How to read the Issues Monitor

Critical uncertainties: Issues with high uncertainty and high impact (in the top-right quadrant) are the 'critical uncertainties' with no clear path of action which keep energy leaders most awake at night. These issues need to be part of the energy leaders' dialogue and scenario analysis. \rightarrow What keeps energy leaders awake at night?

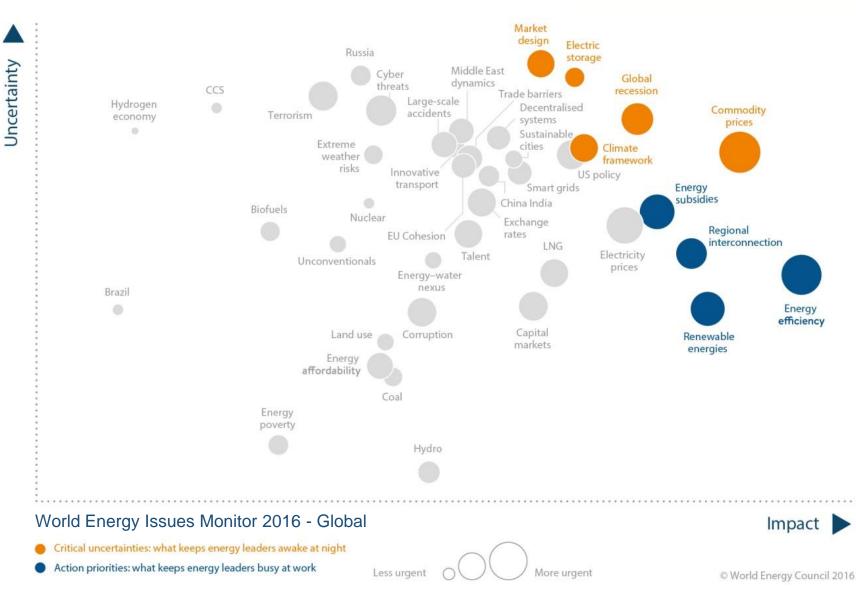
Action priorities: The issues in the high-impact and low-uncertainty space are those which keep energy leaders most busy (bottom-right, 'action issues'). → What keeps energy leaders busy at work?

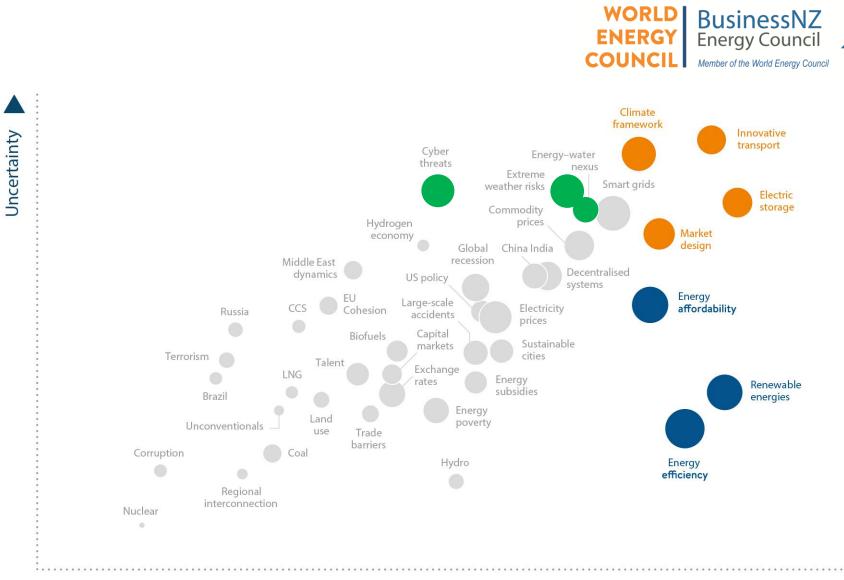
Weak signals: The low-impact and low-uncertainty issues (bottom-left quadrant) include those of perceived lesser importance or those that are still not fully understood and in need of further investigation.

The responses are translated into issue monitors with the three assessed dimensions: the impact of an issue on the energy sector – this forms the x axis; the degree of uncertainty related to its impact – this forms y axis; the urgency with which we need to address the specific issue – represented by the proportional size of the issue bubble where a larger size corresponds to a higher degree of urgency.

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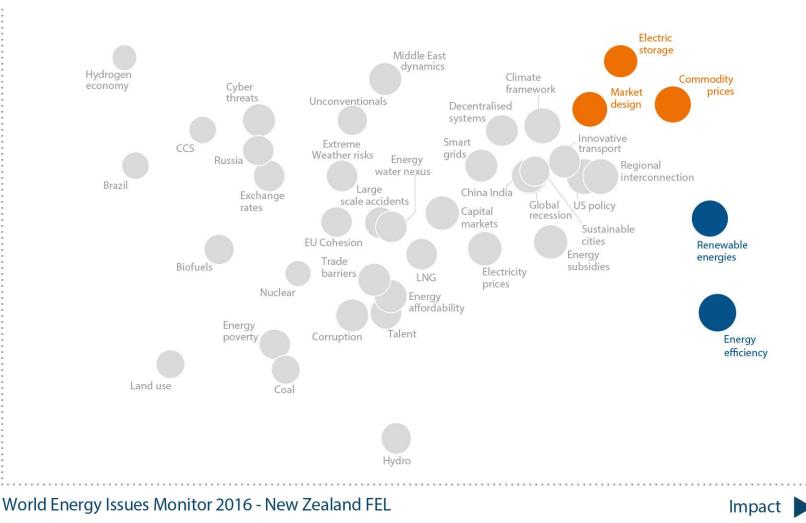
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World Energy Issues Monitor 2016 - New Zealand

- Critical uncertainties: what keeps energy leaders awake at night
- Action priorities: what keeps energy leaders busy at work
- Emerging issues

Impact

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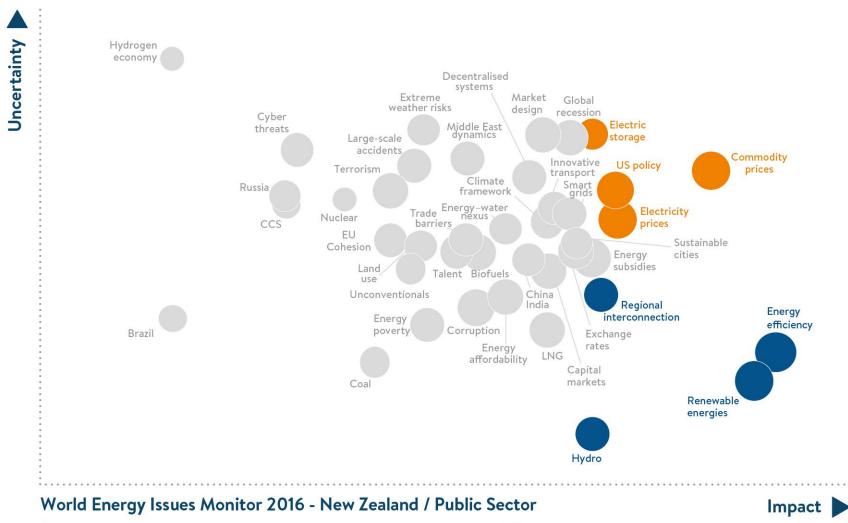
Critical uncertainties: what keeps future energy leaders awake at night

Action priorities: what keeps future energy leaders busy at work

Uncertainty

More urgent





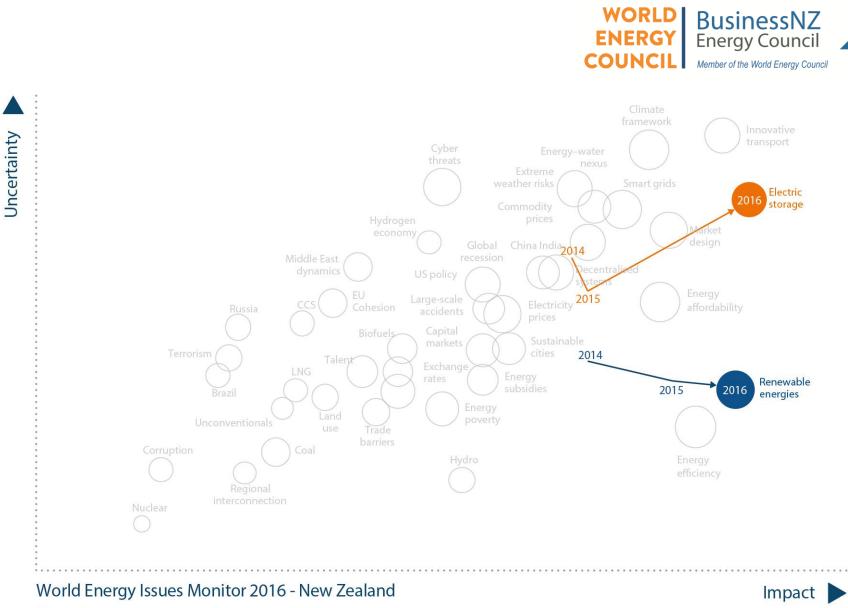
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- Critical uncertainties: what keeps energy leaders awake at night
- Action priorities: what keeps energy leaders busy at work

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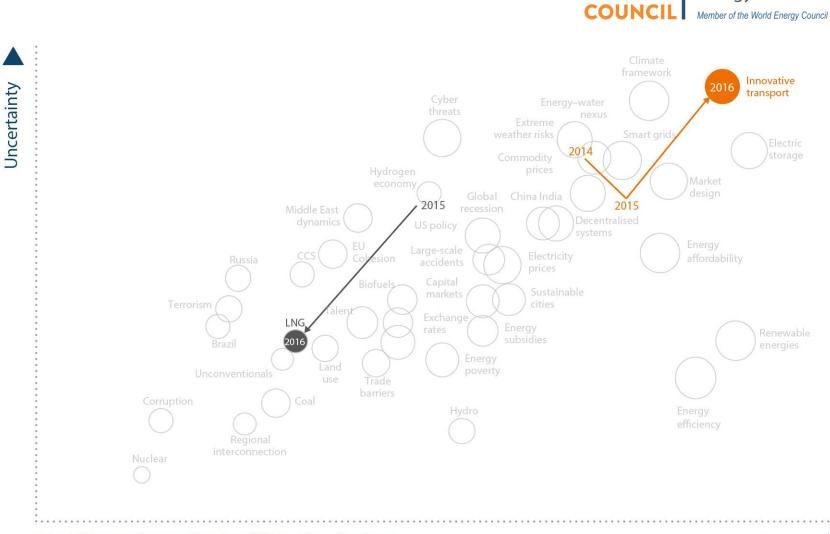
New Zealand Time Lapse Key Issues and Biggest Movers



- Timelapse: Energy Storage 2014 to 2016
- Timelapse: Renewable Energies 2014 to 2016

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- Timelapse: Innovative transport 2014 to 2016
- Timelapse: LNG 2015 to 2016

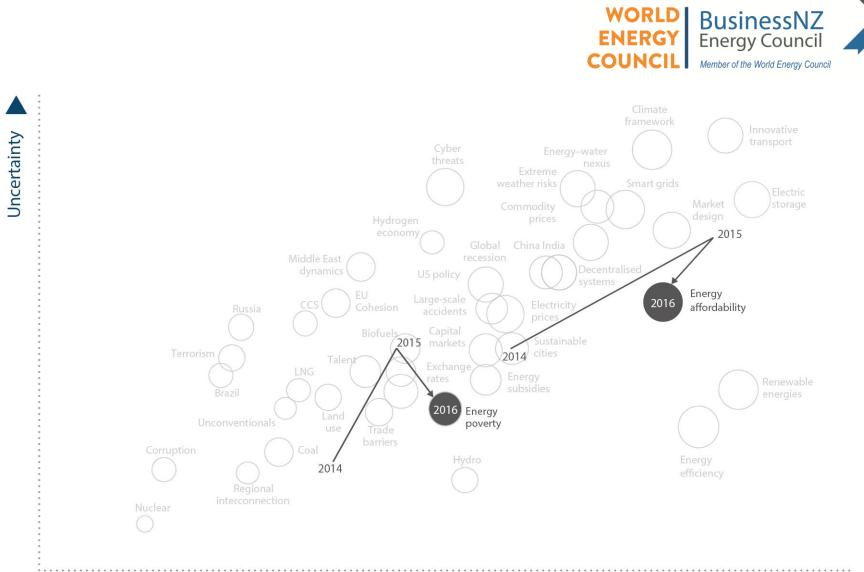
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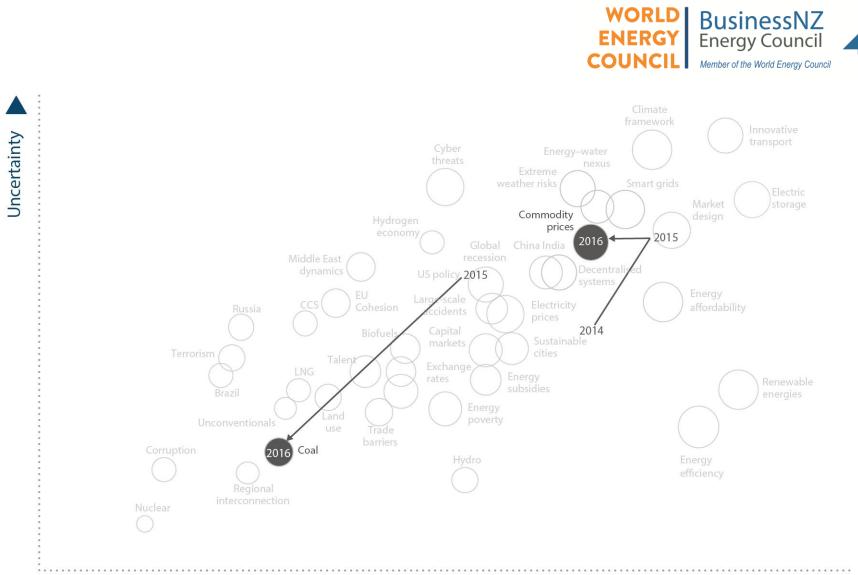
Timelapse: Energy affordability 2014 to 2016
Timelapse: Energy payorty 2014 to 2016

Timelapse: Energy poverty 2014 to 2016

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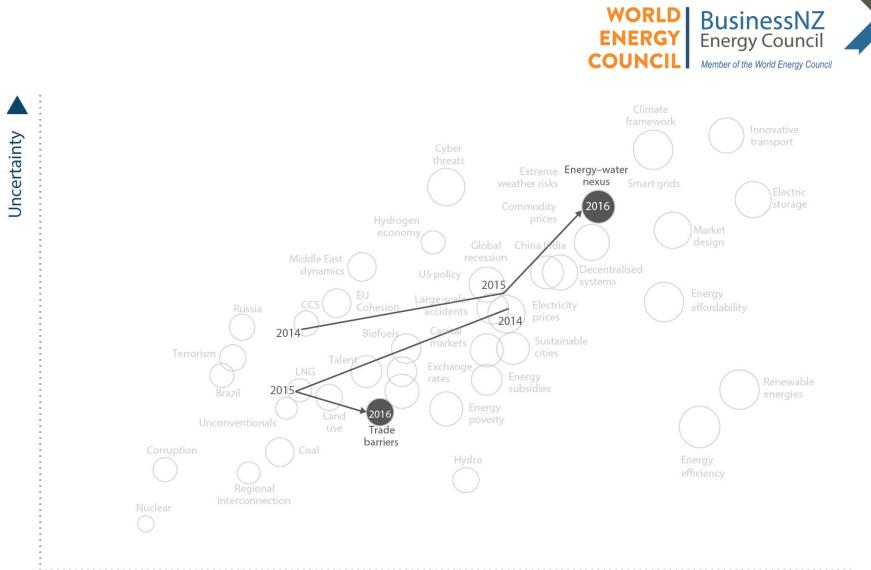


- Timelapse: coal 2015 to 2016
- Timelapse: commodity prices 2014 to 2016

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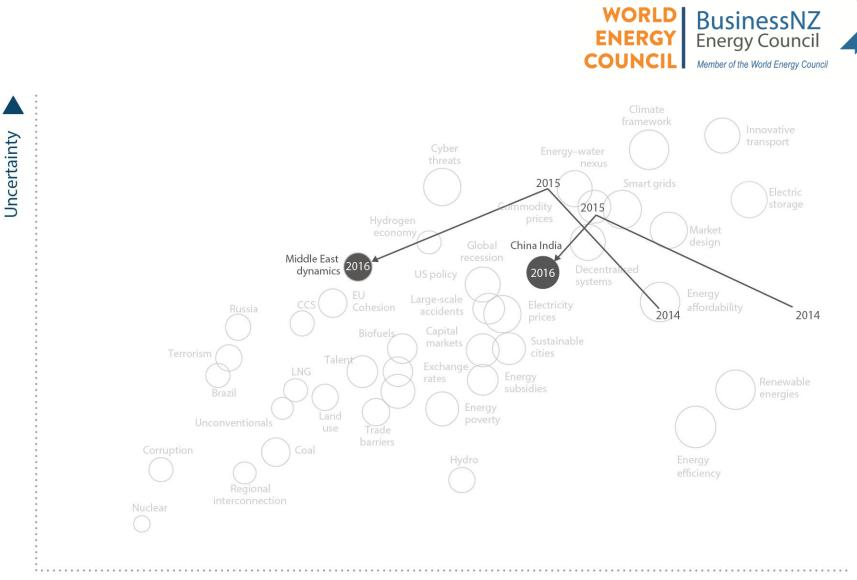


- Timelapse: Energy-water nexus 2014 to 2016
- Timelapse: Trade barriers 2014 to 2016

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- Timelapse: China & India 2014 to 2016
- Timelapse: Middle East dynamics 2014 to 2016

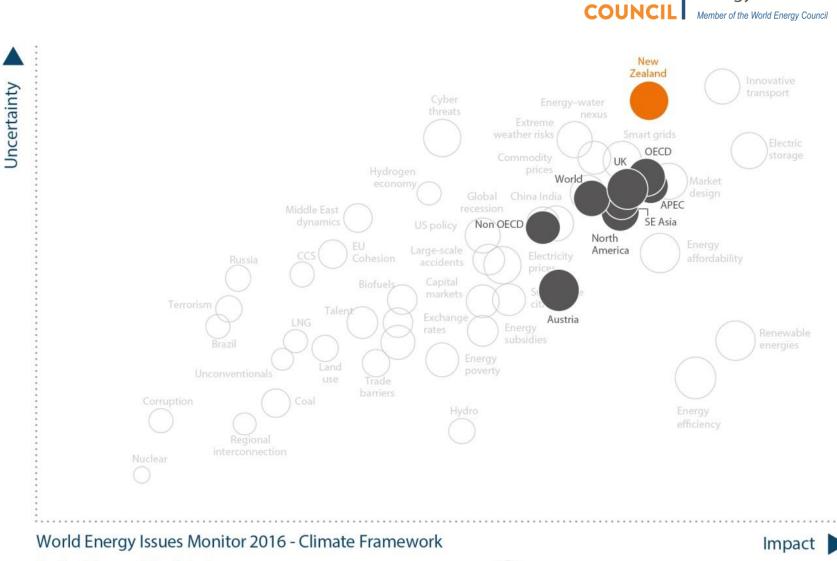
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New Zealand Issue Comparisons with other Regions/Countries



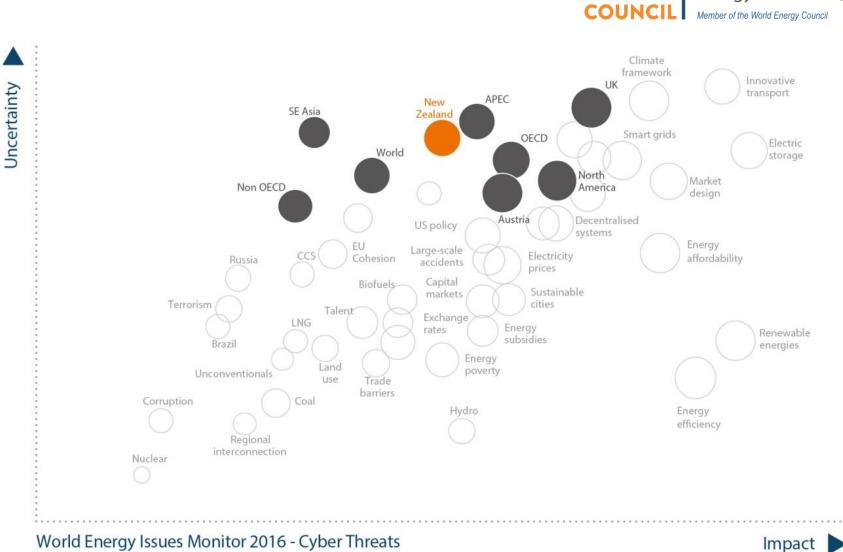
- Climate Framework: New Zealand
- Climate Framework: Other regions

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World Energy Issues Monitor 2016 - Cyber Threats

Cyber threats: New Zealand

Cyber threats: Other regions

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Climate framework Innovative transport Cyber Energy-water threats nexus Extreme weather risks Smart grids Electric UK storage Commodity prices Market omy World design Non OECD Global China India OECD recession Decentralised **US** policy systems North Energy America Large-scale APEC Electricity affordability Russia accidents prices Capital Biofuels Sustainable New markets Zealand Talent Terrorism cities Austria Exchange LNG Energy rates Renewable SE Asia subsidies Brazil energies Energy Land poverty Unconventionals use Trade barriers Coal Corruption Energy Hydro efficiency Regional interconnection Nuclear Impact

World Energy Issues Monitor 2016 - CCS

CCS: New Zealand

Uncertainty

CCS: Other regions

Less urgent

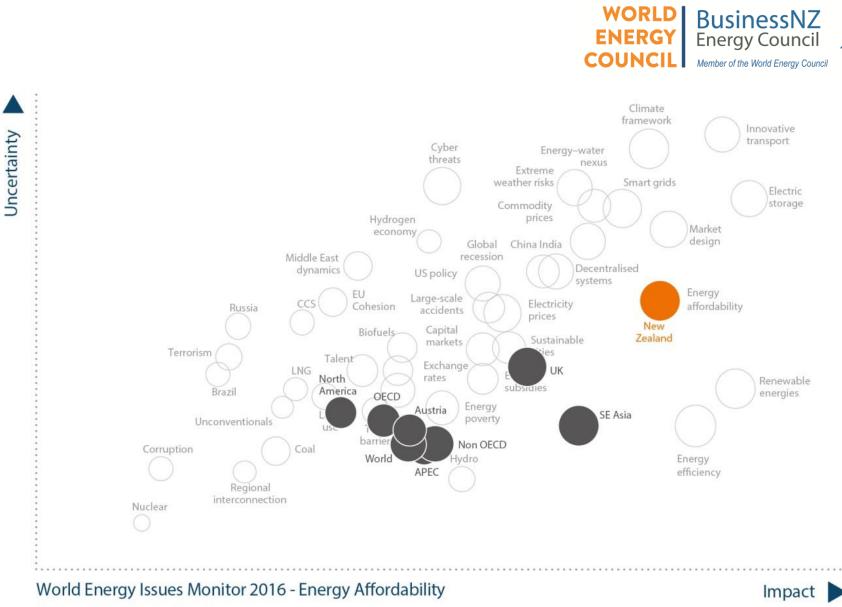
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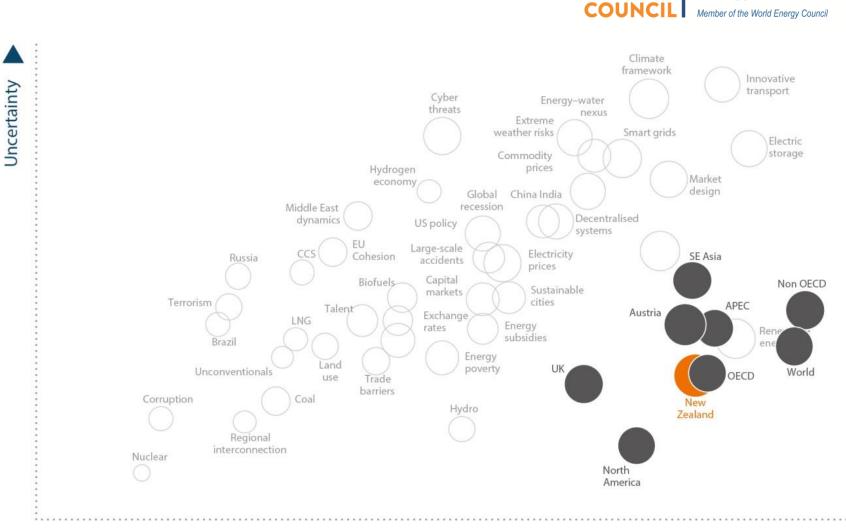
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- Energy affordability: New Zealand
- Energy affordability: Other regions

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World Energy Issues Monitor 2016 - Energy Efficiency

Energy efficiency: New Zealand

Energy efficiency: Other regions

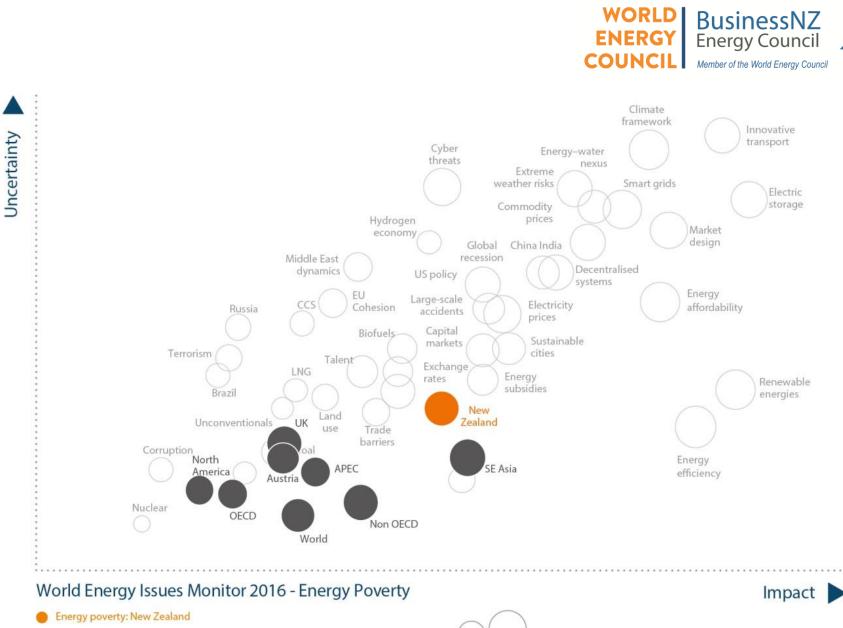
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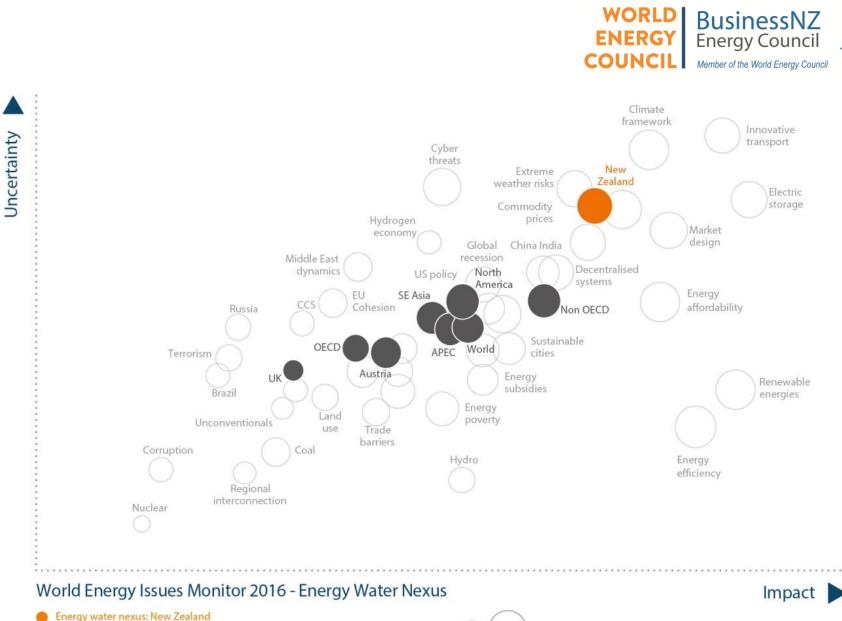
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Energy poverty: Other regions

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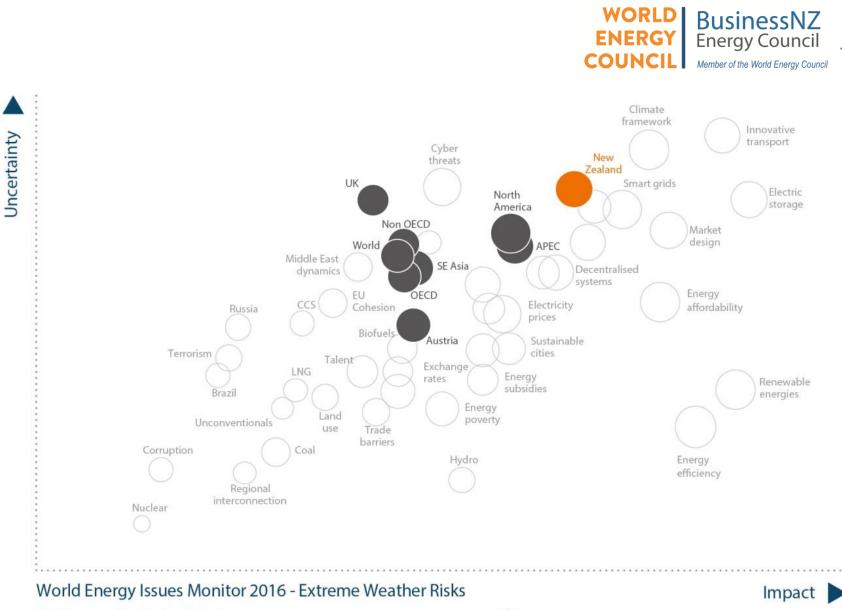
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Energy water nexus: Other regions

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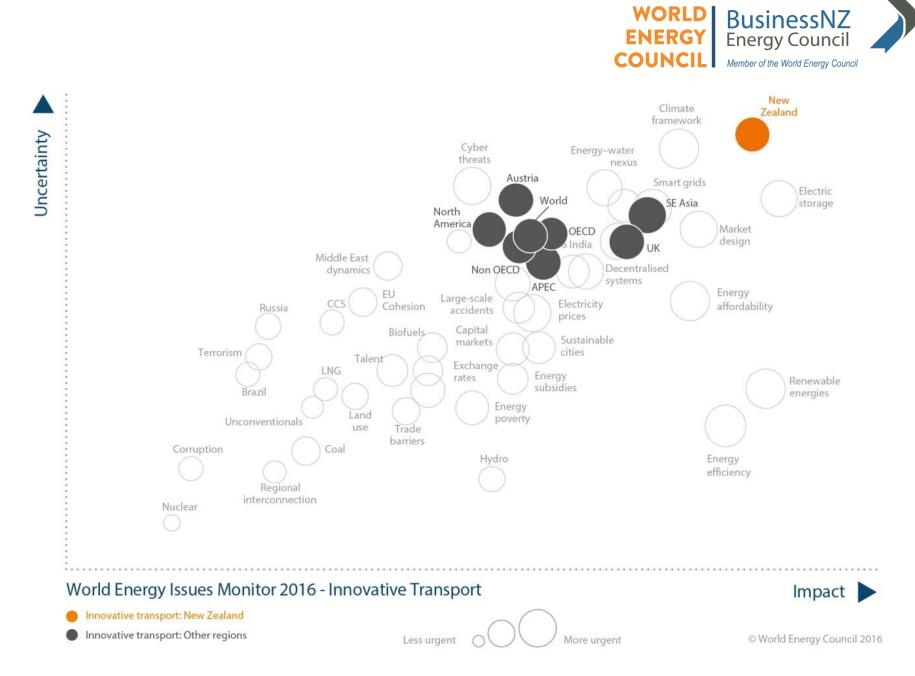
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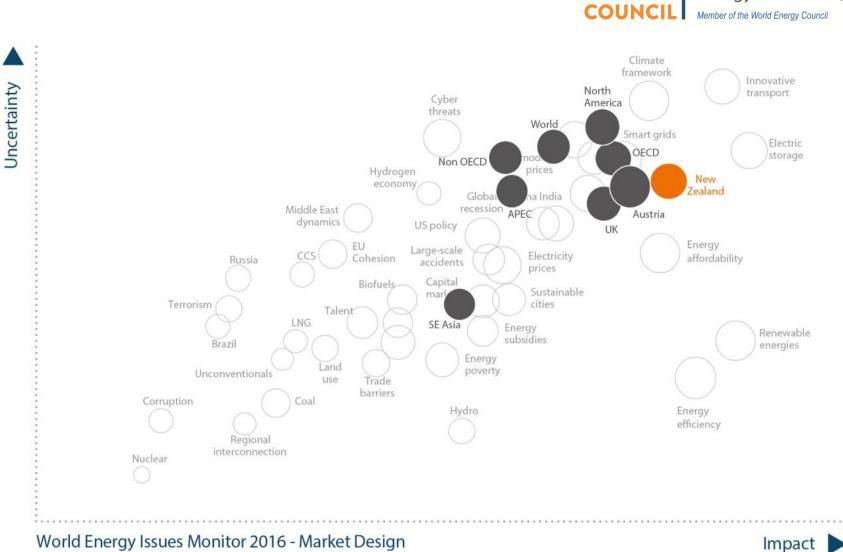


- Extreme weather risks: New Zealand
- Extreme weather risks: Other regions

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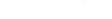
World Energy Issues Monitor 2016 - Market Design

Market design: New Zealand

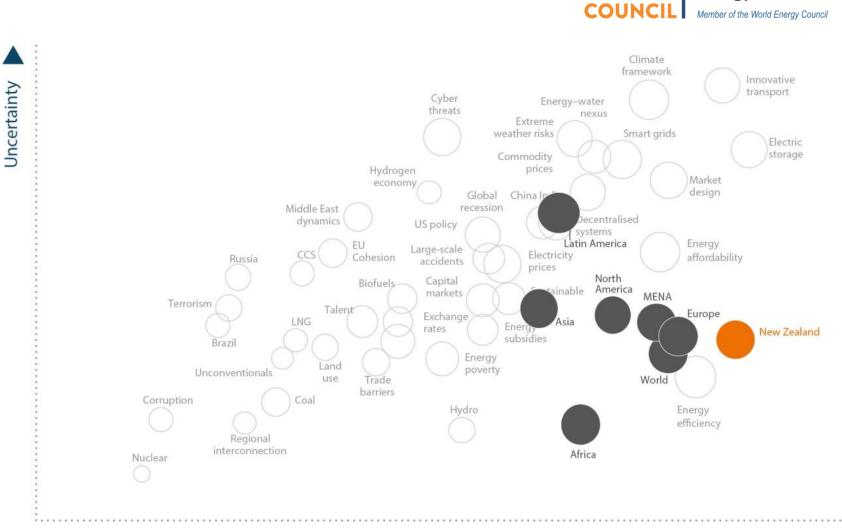
Market design: Other regions

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World Energy Issues Monitor 2016 - Renewables

- Renewable energies: New Zealand
- Renewable energies: Other regions

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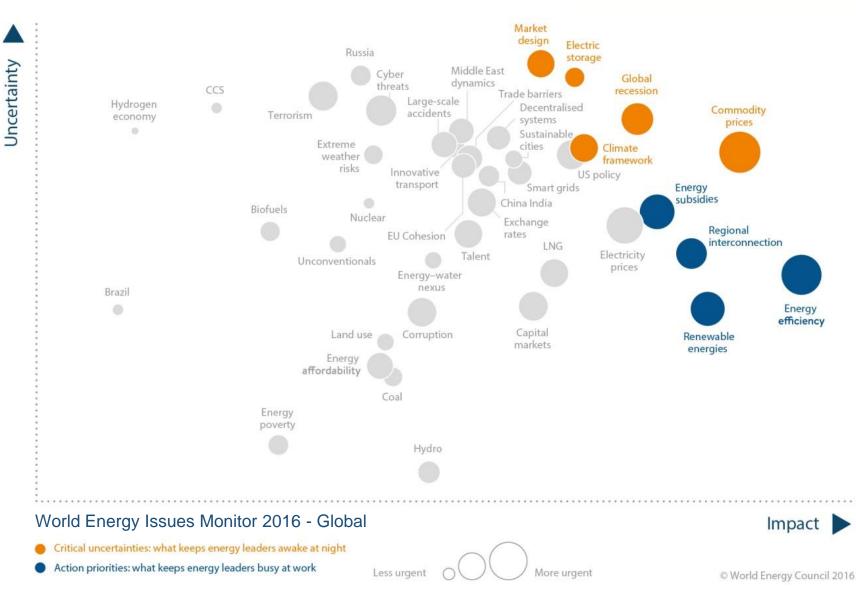
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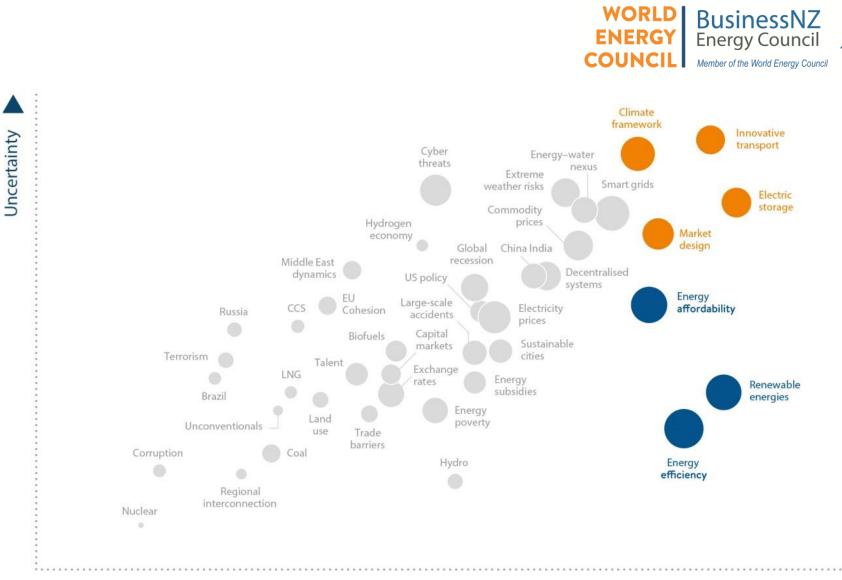


WEC World and Regional Maps

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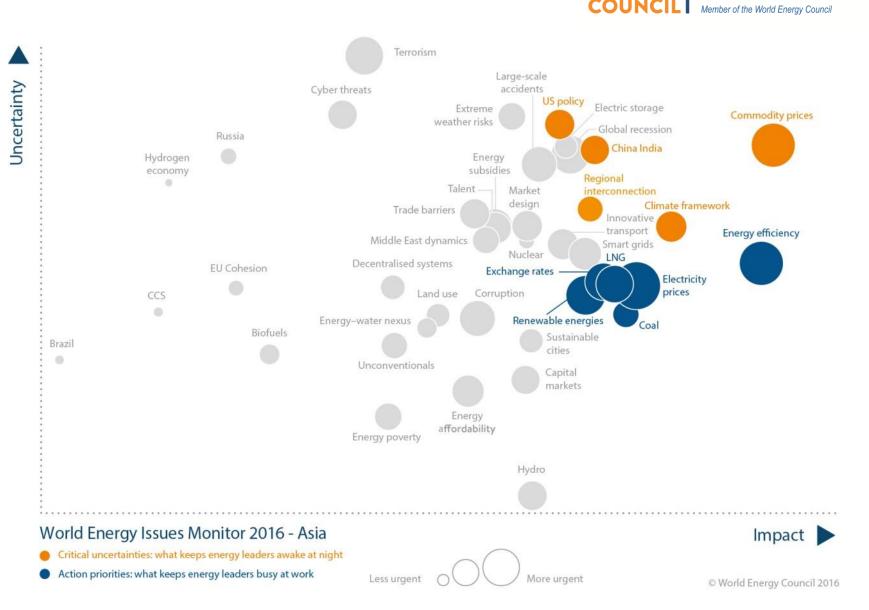
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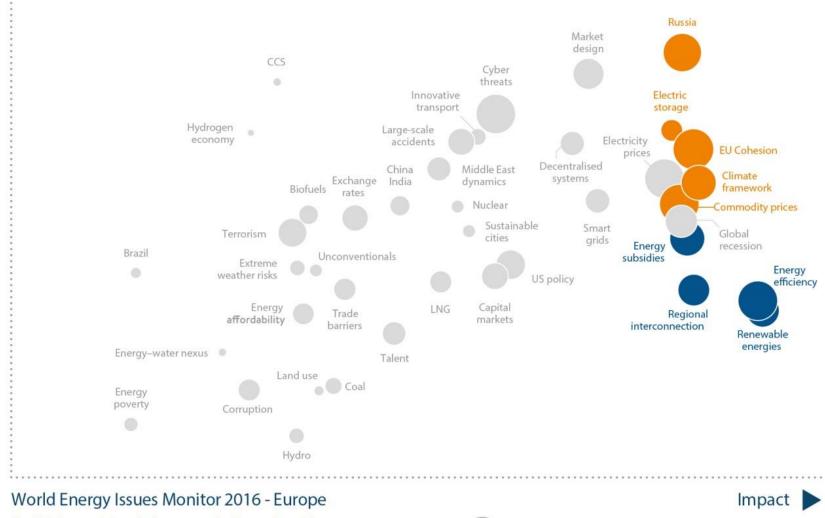
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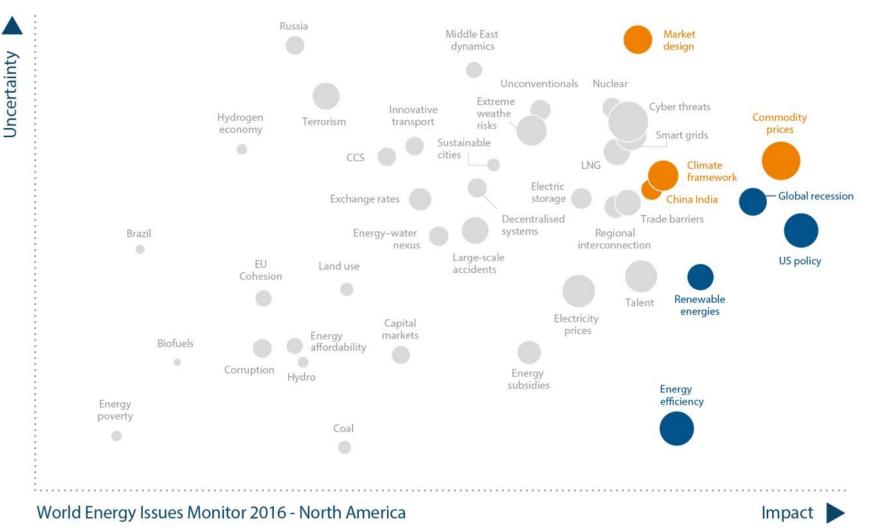
Uncertainty

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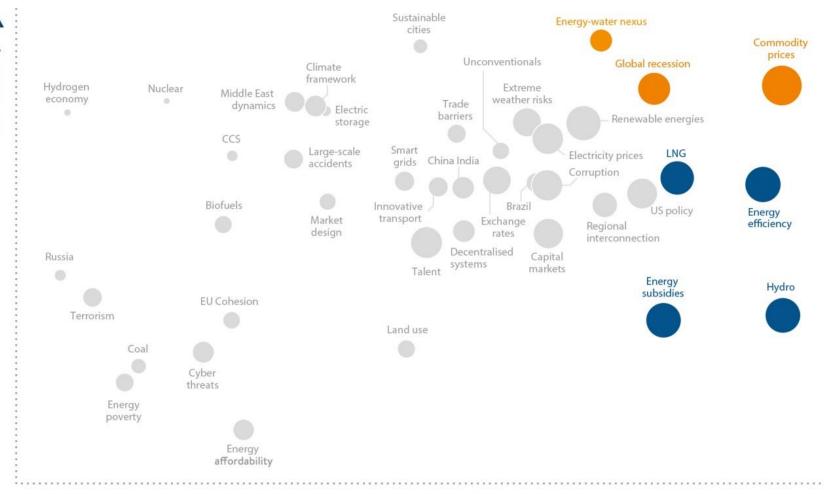
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- Critical uncertainties: what keeps energy leaders awake at night
- Action priorities: what keeps energy leaders busy at work
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World Energy Issues Monitor 2016 - Latin America & The Caribbean

- Critical uncertainties: what keeps energy leaders awake at night
- Action priorities: what keeps energy leaders busy at work

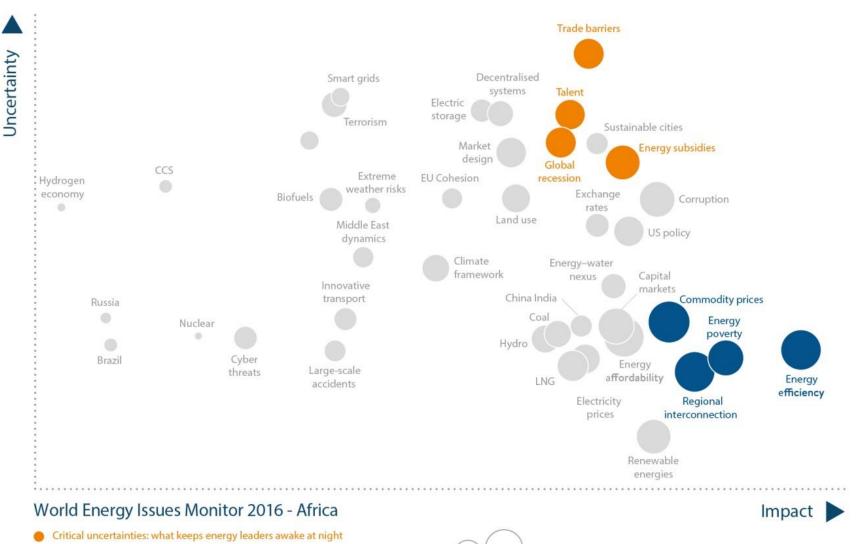
Uncertainty

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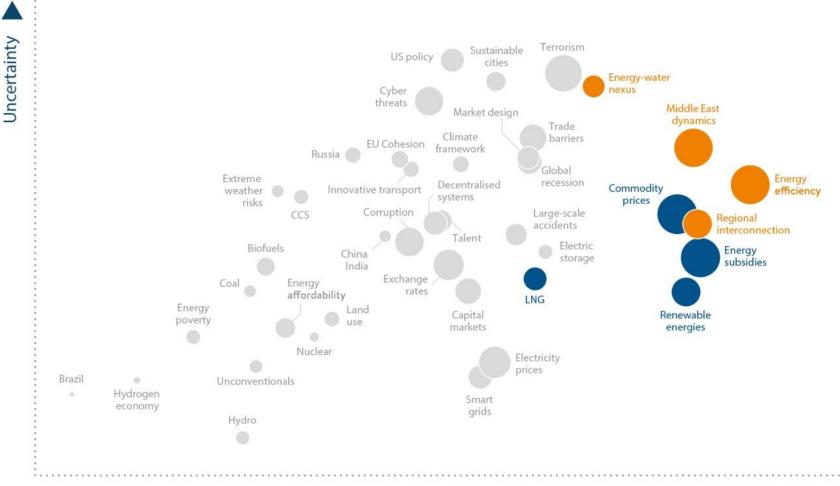




- Action priorities: what keeps energy leaders busy at work
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World Energy Issues Monitor 2016 - Middle East & North Africa

- Critical uncertainties: what keeps energy leaders awake at night
- Action priorities: what keeps energy leaders busy at work

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