



All information will be treated on a confidential basis.

The Issues Survey forms the basis for the World Energy Issues Monitor, a study which presents a snapshot of how the energy landscape is perceived by energy leaders across the world. The Issues Monitor provides valuable analysis on emerging trends, issues that require priority action and energy leaders' top uncertainties.

This 1-page survey will capture your perception towards key issues affecting the energy sector on three dimensions and should not take more than 10 minutes to complete:

- **Impact** – How strong do you perceive the potential impact of the issue (e.g. nuclear) to be on the energy sector in your country? This impact may be positive or negative.
- **Uncertainty** – How uncertain are you about the impacts of the issue?
- **Urgency** – How soon do you think the energy sector in your country needs to react to the issue?

Please complete the details below and proceed to the survey on the next page. Further explanation of each issue is provided on page 3.

Please return your completed survey to Debbie Bougen (dbougen@businessnz.org.nz) by **August 31st, 2016**.

All information will be treated anonymously.

Respondent Details:

NAME		
COMPANY		
INDUSTRY / SECTOR	Academia Association Banking & Finance Consultancy Government NGO Power & Utility	Coal Nuclear Oil & Gas Renewables Technology Other:
COUNTRY*		
AGE (please select one)		
MEMBERSHIP		

Your feedback is very much appreciated. If you would like to receive the results before the official publication, please provide your email below.

EMAIL (only used to provide you with the final report)	
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Issues For explanations please see page 3.	How strong do you perceive the potential IMPACT of the issue to be on the energy sector in your country?			How UNCERTAIN are you about the impact of the issue?			URGENCY – How soon should the sector in your country react to the issue?		
	High	Med	Low	High	Med	Low	< 3 years	3-10 years	> 10 years
Macroeconomic Risks & Vulnerabilities									
Global climate framework agreement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large-scale accidents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economic growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Capital market access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy & commodity prices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electricity prices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exchange rates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy-water-food nexus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Land availability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy affordability – households	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme weather risks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cyber threats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corruption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terrorism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy Geopolitics & Regional Issues									
China growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
India growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russian foreign policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EU cohesion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Middle East/North Africa fragility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US trade & policy influencing global energy markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy Policies & Business Environment									
Trade barriers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional integration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innovative market design & policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy subsidies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decentralised systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy Vision & Technology									
Sustainable cities and urban design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon capture and storage (CCS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smartgrid and big data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innovative transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electricity storage innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuclear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large scale hydropower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unconventional fossil fuels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liquefied natural gas (LNG)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Renewable energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biofuels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydrogen economy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation of issues

Macroeconomic Risks & Vulnerabilities	
Global climate framework agreement	Global climate negotiations and the implementation of COP21 agreements.
Large-scale accidents	Past and potential large-scale accidents and resulting implications, such as the Fukushima nuclear disaster and the Deepwater Horizon oil spill.
Economic growth	Effects of economic growth (or lack thereof) on energy markets.
Capital market access	Access to capital and the ability to deliver capital for energy infrastructure, in a context of high political, market and technology risks.
Energy & commodity prices	Price and volatility risks for energy and related commodities.
Electricity prices	Price and volatility risks for electricity.
Exchange rates	Exchange rate fluctuations and currency devaluation risks on energy operations and investments.
Energy-water-food nexus	Competition for water resources and water availability due to changing weather patterns and its effects on energy production and supply.
Land availability	Access to the required land for the supply, transport and distribution of energy and the social licence to operate value chain activities.
Talent availability	The availability of labour with the necessary skills, qualifications and experience.
Energy access	Lacking access to modern energy services including household access to clean cooking facilities and electricity.
Energy affordability – households	Share of household budget spent on energy including heating fuels, electricity and gasoline ('fuel poverty').
Extreme weather risks	Increased frequency and severity of extreme weather events (e.g. floods, storms, droughts) and the impact on energy systems and infrastructure design and resilience.
Cyber threats	Threats resulting from unauthorised attempts to access control system devices or networks within the energy sector and network providers.
Corruption	Slowing down the development of effective policies and distorting the competition.
Terrorism	Physical risks resulting from terrorism, affecting energy systems, infrastructure and markets.
Energy Geopolitics & Regional Issues	
China growth	China driven innovation and policy influencing global energy trade, market dynamics and global governance.
India growth	India as the next engine of demand growth.
Russian foreign policy	Russia's foreign policy effects on domestic investment and operations, key energy partnerships and global energy markets.
EU Cohesion	Convergence to a common energy policy (critical market design; ETS -emission trading scheme-, capacity and storage incentives).
Middle East / North Africa fragility	Political regime fragility and geopolitical tensions affecting energy markets.
US trade and policy influencing global energy markets	US driven innovation and policy influencing global energy trade, market dynamics and global governance.
Energy Policies & Business Environment	
Trade barriers	Constraining or enabling green growth (e.g. through technology transfer, tariffs on green goods and services, local content requirements, border tax adjustment).
Regional integration	Converging energy policy to overcome unequal distribution and ineffective allocation of energy resources (e.g. interconnectors, pipelines, trade platforms) between countries, sub-regions or entire regions.
Innovative market design & policies	New market designs and policies securing back-up and storage capacity in natural gas and electricity markets.
Energy subsidies	Subsidies within the energy sector affecting the energy mix, competition, technology development and energy affordability.
Decentralised Systems	Innovative business models for demand side innovation and management.
Energy Vision & Technology	
Sustainable cities and urban design	Delivering resource-efficient urbanisation at scale; relating to management of waste, water, energy and transportation.
Energy efficiency	The role of measures (designs/operations/technologies) to reduce energy consumption.
Carbon capture and storage (CCS)	CCS as a technology to prevent large quantities of CO ₂ emissions from large scale fossil fuel power generation.
Smartgrid and big data	An electric power distribution network that includes two-way digital communication between consumer and producer, machines and the 'prosumer' as well as machine to machine.
Innovative transportation	Innovative transportation concepts, new modes and fuel sources including electric vehicles, hybrid and natural gas vehicles.
Electricity storage innovation	Price and scalability of batteries, 'power to gas' technology and storage as an enabler for greater integration of renewables.
Nuclear	The outlook for nuclear as part of the regional and global energy mix.
Large scale hydropower	The outlook for large scale hydro as part of the regional and global energy mix.
Unconventional fossil fuels	The outlook for shale gas, oil shale and other 'unconventionals' as part of the regional and global energy mix.
Liquefied natural gas (LNG)	The role of liquefied natural gas (LNG) in regional and global energy markets.
Coal	The role of coal (lignite, anthracite, sub-bituminous, bituminous) as part of the regional and global energy mix.
Renewable energy	Rapid growth of renewable energy sources, especially solar PV and wind, affecting energy markets.
Biofuels	The outlook for biofuels as part of the regional and global energy mix.
Hydrogen economy	A pragmatic build-up to establish niche markets.