

World Energy Issues Monitor

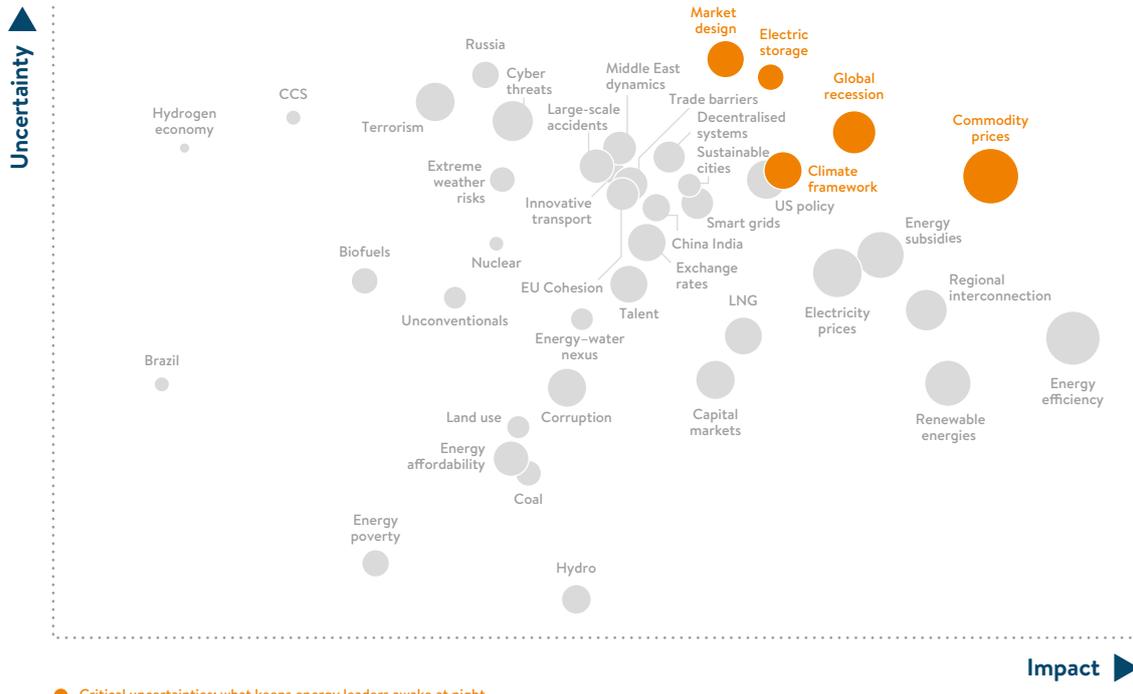
2016 | EXECUTIVE SUMMARY

A CLIMATE OF INNOVATION – RESPONDING TO THE COMMODITY PRICE STORM

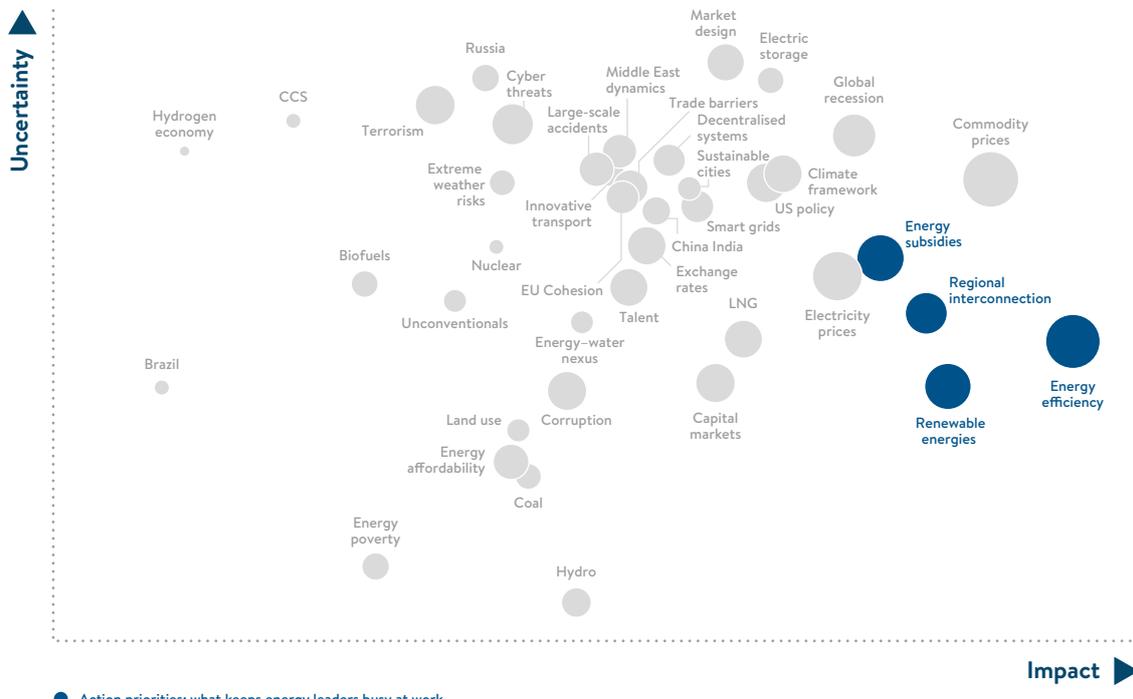
THE 2016 WORLD ENERGY ISSUES MONITOR samples the views of CEOs, Ministers and experts from across the globe to highlight the critical uncertainties facing the sector. This year's report finds that industry leaders in 2016 are most concerned about commodity prices, the ongoing effects of economic slowdown and continued climate framework uncertainty, while issues of new market design and electric storage are rapidly gaining prominence.

KEY FINDINGS

- 1 COMMODITY PRICES** and associated volatility have replaced energy prices as the number one critical uncertainty on the energy agenda for leaders and experts globally. This movement of commodity prices, to a position of extreme importance in every region, reflects the global recognition for energy leaders of the severity of the current market environment. This puts enormous pressure on many key players throughout the energy sector.
- 2 INNOVATION;** in particular issues of storage, market design and climate resilience, have become increasingly important drivers of change within the energy transition. This is reflected by the strong move of this group of issues up the energy agenda.
- 3 UNCONVENTIONALS** have lost traction for industry leadership in the current price environment. However, the trends for shifting portfolio allocations around more flexible, shorter-cycle investments have important implications as more conventional business models are challenged.
- 4 THE POSITIONING OF LNG** has remained stable in this year's Issues Monitor. The issue is recognised as a clear action priority, with a high impact despite the experienced market volatilities. What was previously regarded as an issue with significant regional implications has become an increasingly global issue, as volumes of exported LNG have grown and existing supply routes become increasingly challenged.



● Critical uncertainties: what keeps energy leaders awake at night



● Action priorities: what keeps energy leaders busy at work

Less urgent ○ ○ ○ More urgent

5 GEOPOLITICAL CONCERNS are closely linked to the current emphasis on commodity prices. Uncertainty around **Middle East dynamics** and a higher impact attributed to **US policy** has assumed increased importance in 2016. In contrast to previous year's reports, the latest geopolitical dynamics add further weight to supply side fundamentals.

6 THE EFFECTS OF THE GLOBAL RECESSION, which continue to be high on the agenda, are closely linked with the role of **China and India** and the impact of slowing demand. This is having an impact on the confidence for the energy sector as a whole.

7 THE RISK FROM CYBER THREATS has moved up the agenda this year, specifically in North America and Europe. A clearer understanding of the nature of cyber risk and mitigation measures for energy infrastructure is necessary, in an environment of increasing interconnectivity and emerging technologies.

8 THE EFFECTS OF EXCHANGE RATE fluctuations and currency risk on energy operations and investments show a clear divergence between OECD and non-OECD countries. Energy leaders in non-OECD economies perceive this issue with a notably higher level of concern. In particular, emerging markets are impacted by the combination of falling commodity prices and export volumes at the same time as a surging US dollar which has put increasing pressure on corporate balance sheets.

9 THE IMPACT OF THE CONFERENCE OF PARTIES (COP21) agreement in Paris and the adoption of energy as a UN Sustainable Development Goal have reduced uncertainty associated with the issue of a **climate framework**. However, energy leaders remain cautious about the words being translated into actions without clear price signals.

10 THE LATEST NATIONALLY DETERMINED CONTRIBUTIONS commitments presented to the COP21 meeting in December 2015 signal a clear indication of intent. This has increased the expectation for a significant scale up of **renewable energies**. This has translated into a reduced level of uncertainty amongst energy leaders in this year's Issues Monitor, moving renewables firmly to the action priority space.

Key regional disparities exist in the Issues Monitor; most noticeably for issues of coal, corruption, large scale hydro and nuclear, but also resilience issues such as the energy-water nexus and cyber threats.

IMPLICATIONS FOR THE ENERGY SECTOR

These findings reinforce the theme outlined in last year's World Energy Issues Monitor around a 'new normal' for energy prices and market realities. The effects of the issues on the energy transition are now beginning to play out both across regions and at the national level.

The report also finds that the ability to finance the transition to a sustainable energy system keeps energy leaders busy at work. There is a growing acknowledgement that adaptation to new resilience challenges (cyber threats, extreme weather risks and the energy-water nexus) will require attention and funding, while smart innovation and regional interconnection are also being recognised as being key parts of the solution.

The trends highlighted throughout this year's report, demonstrate that increased volatility caused by a range of macroeconomic factors, especially in relation to energy and commodity prices, are now an established environment in which energy leaders must make difficult investment, operational and technological decisions. In such circumstances it is clear that company and policy strategies will need to adapt to meet the new operating conditions.

ABOUT THIS REPORT

The aim of this report is to ensure that energy leaders across the world better understand the reality of their operating environment so that they can make more informed decisions towards a sustainable energy future. Now in its seventh year the 2016 World Energy Issues Monitor represents the insights of over 1200 energy leaders in 90 countries representing all parts of the energy sector. It brings together the viewpoint of both industry and policy leaders along with experts from the World Energy Council's community.

WORLD ENERGY COUNCIL

The World Energy Council is the principal impartial network of leaders and practitioners promoting an affordable, stable and environmentally sensitive energy system for the greatest benefit of all. We are the UN-accredited global energy body, representing the entire energy spectrum, with member organisations in over 90 countries.

Further details at www.worldenergy.org and [@WECouncil](https://twitter.com/WECouncil)

The full report can be found at www.worldenergy.org/publications

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