# Talking points: World Energy Trilemma 2016 - Defining measures to accelerate the energy transition

***Who*:**

The World Energy Council and the global consultancy firm, Oliver Wyman, a subsidiary of Marsh and McLennan Companies.

***Why*:**

The World Energy Council's definition of energy sustainability is based on three core dimensions (1) energy security, (2) energy equity and (3) environmental sustainability. Balancing these three goals constitutes a 'trilemma' and is the basis of prosperity and the competitiveness of individual countries.

**What:**

The 2016 Trilemma report defines measures to progress on the three goals of energy security, energy equity and environmental sustainability with the aim to accelerate the energy transition and lead countries to prosperity and increased competitiveness of their individual economies. It provides guidance in the complex task of translating the trilemma goals of security, equity and sustainability into tangible actions.

***How:***

The analysis is based on interviews with policymakers and private sector energy leaders, wide assessments of energy strategies as well as the research and findings of the Council's Trilemma work programme over the past five years (2011 -2015). The report also draws on Trilemma Index rankings from 2011 to 2015.

**Key findings:**

The report identifies 5 focus areas to progress on the energy trilemma: (1) transforming energy supply, (2) advancing energy access, (3) addressing affordability, (4) improving energy efficiency and managing demand and (5) decarbonising the energy sector.

Examples of case studies featured in the report include (but are not limited to):

1. **Transforming energy supply:** *Italy* has made advances in diversification in gas supplies and gas storage capacity. Renewable energy reached 39% of total electricity consumption. Early engagement of affected communities is critical in preventing project delays.

2. **Advancing energy access:** *Namibia* has made advanced in energy access through innovative mechanisms including energy shops. Energy shops offer information and sell energy equipment and serve as a payment collection point for credit financing for renewable energy technologies and products. Energy access in remote areas can be advanced by bringing together policy makers, technology providers and local entrepreneurs.

3. **Addressing affordability:** *Argentina*'s government froze electricity prices in response to the 2001 economic crisis. As a result there has been insufficient investment into energy in the country. Argentina became a net energy importer in 2011 for the first time since 1984. The case study

illustrates that long-term subsidies and prize freezes can erode the profitability of utilities, stall improvements in energy infrastructure and stimulate inefficient energy use.

4. **Improving energy efficiency and managing demand:** India has addressed energy efficiency through the Perform, Achieve, Trade policy. Consumers receive specified energy consumption targets. Consumers that perform better can trade their energy savings certificates. However, few of the efficiency projects involved major technology or process changes. Private sector commitment and alternative financing solutions are crucial for the success for such schemes.

5. **Decarbonising the energy sector:** *Turkey* has introduced the Law on Utilisation of Renewable Energy Resources (2005) to increase the share of renewables and work towards decarbonising the energy sector. Feed-in tariffs (FITs) are the main renewable energy support mechanism. Turkey has doubled its installed renewable energy capacity between 2005 and 2010. However, greenhouse gas emissions have increased as coal prices have been lower than the FIT rates. Higher FIT rates and longer guarantee periods could improve the success of the programme

**Key recommendations:**

1. **Policy matters:** Policy choices and a regime to support a robust energy sector are critical to lasting energy trilemma performance regardless of a country's resources or geographic location.

2. **Time matters:** Policies and investments intended to change energy supply and demand at a national level will take time and will likely be disruptive. Countries must therefore act now to progress on the trilemma with secure, equitable and environmentally sustainable energy to support a thriving energy sector, a competitive economy and a healthy society.

**About the World Energy Council:**

The World Energy Council is the principal impartial network of energy leaders and practitioners promoting an affordable, stable and environmentally sensitive energy system for the greatest benefit of all. Formed in 1923, the Council is the UN-accredited global energy body, representing the entire energy spectrum, with over 3,000 member organisations in over 90 countries, drawn from governments, private and state corporations, academia, NGOs and energy stakeholders. We inform global, regional and national energy strategies by hosting high-level events including the World Energy Congress and publishing authoritative studies, and work through our extensive member network to facilitate the world's energy policy dialogue.

**Further information:**

- Further details at www.worldenergy.org and @WECouncil
- The full report can be found at www.worldenergy.org/publications