How to unlock US\$48trn investment in energy infrastructure

OBSTACLES AND BARRIERS

Unlocking capital sources



Roughly US\$48 trillion investment in energy infrastructure is required over the next 20 years to replace ageing assets, build new energy infrastructure, meet climate change targets, and provide access to the 1.2 billion people without energy.

Managing trade-offs



Balancing the three dimensions of the energy trilemma is hard. And, as time elapses, it will get even harder and more expensive.

Reducing uncertainty



Political and regulatory uncertainty driven by national policy and regulatory changes, lack of an international climate framework, and the speed of technology development drives up the cost of capital and deters investment.

RECIPE FOR SUCCESS

The World Energy Trilemma report helps governments rise to the challenge the World **Energy Council has defined** as the energy trilemma.

Balancing the three core dimensions of the energy trilemma - energy security, universal access to affordable energy services, and environmentally-sensitive production and use of energy is the basis for prosperity and competitiveness of individual countries.

Sustainable energy is not only an opportunity to transform societies and grow economies, but also a necessity – a prerequisite to meet growing energy demand and reduce the carbon footprint.



ENERGY SECURITY ENERGY

WHAT IS AT RISK?

Meeting energy demands



Secure energy is critical to maintaining and driving economic growth. Meeting rising demands for energy enables the expansion of all sectors of the economy including agriculture, transport. manufacturing, construction, health, and social services.

Delivering social benefits









Energy must be accessible and affordable at all levels of society. The shift from primary energy to electricity is a key feature of modern society and increased energy access is strongly correlated to growth in education, life expectation, and economic development.

Minimising environmental impacts



The impact of energy production and energy use on the environment must be minimised in order to combat climate change as well as the implications of local air and water pollution.

TIME TO GET REAL



Policymakers must focus on reducing political and regulatory risks

- · Have a clear vision for sustainable energy and a master plan with clearly defined energy sustainability goals
- Define coherent, long-term, and predictable energy policies, underpinned by well-implemented regulations
- · Recognise that investors are not going to provide capital without an attractive profit



The financial infrastructure must exist for capital to flow easily to the energy sector

- · Help policymakers and energy sector understand the role of different financial investors and instruments
 - Support efforts for the standardisation of instruments
- · Review existing rating models and develop new approaches to bundle smaller-scale projects



The energy sector must bring clearly bankable projects to the market

- Be more proactive in the dialogues around energy policies
- Establish standard procedures and best practices for data and disclosure
- Create new pricing models that meet the reality of changing business models and encourage demand side response

Collaborative action is required





build consensus nationally and globally - as the core platform on which to craft predictable and durable energy policy



Develop a process that ensures a strong and common

understanding of emerging

technologies and how they

can support national and international energy and climate goals

(**4**) (**3**)

Stimulate the financial sector by ensuring

public policy is

attractive and business

friendly enough for

money to flow

Create joint dialogue platforms for information exchange and to increase understanding that encompasses the energy system as a whole







\$ 4

developing and emerging economies to support the development of a robust project pipeline



Form research coalitions and encourage joint pre-commercial industry initiatives





Identify how investors' risk-reward equations can be aligned with the need to provide accessible and affordable energy



The Energy Trilemma Index provides the world's most comparative assessment of how countries perform in delivering sustainable energy systems. The Index enables countries to visualise their energy system and identify areas for action. Further information can be found online at www.worldenergy.org/data/sustainability-index

WHAT GETS MEASURED, GETS DONE

2014 Energy Trilemma Index - Top 20 countries

AAA **United Kingdom** AAA AAB Canada AAB Austria Finland ABB **New Zealand** AAB AAC BBB Netherlands AAC Luxembourg AAD

AAD

Qatar

