



ENRich 2019

Investing amidst transition

06 November



About ENRich 2019

Climate and the world of energy are intricately interlinked. At the turn of the century global economic growth and the need for energy related resources were growing apace. That relation is now significantly altered. While, global GDP is anticipated to double, energy demand is likely to grow only by 30 percent between now and 2040. However, this is not good enough. The world is 1°C hotter than it was about a hundred years ago¹, and local impacts are even more accentuated.

Economies have started transitioning their energy sector to manage the climate imperative. Indian energy sector has also started the transformation. Renewable energy is gaining share in the energy basket, and over time, it will displace carbon heavy alternatives. The economy is moving towards electrification across board. Industries dependent on traditional energy and resources economies need to transition.

We need to navigate effectively for a better future. The new paradigm in energy and natural resources presents opportunities for greater inclusion, employment, economic efficiency, competitiveness and such other. It can also help unleash a new wave of digital revolution because energy infrastructure of the future can become the new internet.

Along with these opportunities, there could be adversities emerging from the energy transition. Energy infrastructure has substantial long-term capital lock-ins, thus timing of new investments is increasingly becoming tricky as are the efforts in financing the high cost high gestation capital assets.

ENRich 2019, the tenth edition of our flagship Energy and Natural Resources (ENR) Conclave, will delve into these issues as it deliberates around the core theme of **Navigating Energy Transition**. The Conclave will deal with various aspects of this transition including on a socially inclusive course to this transition, on technology, investments, manufacturing and deployment, demand side efficiency and promoting the circular economy, resources for shared mobility and energy equity. In a situation that is beset with issues around utility sustainability, cost recovery and return on investments, we will deliberate through its various sessions on how these aspects can be coherently stitched together. The goal would be to evolve a robust landscape where citizens and investors in the energy economy can help evolve a benign energy future that leaves the world for our future generation in as good a place as that the past generations enjoyed.

ENRich 2019 themes

- A sustainable agenda for India
- Investing amidst the energy transitions
- Circular economy in energy and resources
- ENR and the evolving Autonomous Connected Electric and Shared (ACES) Economy

The discussions in ENRich 2019 will be captured through a post-event brief for policy makers and sector professionals.



¹ Data in this paragraph abstracted from The Economist, September 20, 2019



Session context

Between now and 2040 even as the overall economic output would double globally, the demand for energy will grow only by about 30%, primarily due to energy efficiency. Developing countries like India which have low per capita consumption are likely to contribute to the entire absolute consumption growth. However, even in these growth economies the supply side is going to stand altered. As compared to a coal heavy future that has been forecasted in public documents and private forecasts as the base case, there are alternate scenarios that forecast a much more renewable heavy supply side in the future coupled with storage technologies.

In this rapidly evolving and often uncertain landscape the need for investments remain significant. India has to triple its installed power generation capacity by 2040, grow its oil refining capacity by 60-70% and also invest heavily in networks and pipelines. However, simultaneously there would be need for maintaining flexibility as technology changes. For example, refineries would need to be flexible to switch to chemicals as the demand patterns shift.



In the backdrop of such shifts many questions arise:

1. How can asset driven industries invest amidst scenarios of rapid technological and user preference change?
2. Wind and solar projects will become mainstream in the future. Where can the large volume of funds be availed from? What would be the changes required in the present commercial framework for renewable energy projects to avail the required scale of funding?
3. What would be the financing model for new/ intermediate technologies like battery storage to scale up?
4. Despite being a large consuming market India has not been able to build a large manufacturing base for cleantech. Research and Development (R&D) also remains rudimentary. How can this change?
5. Given the inherent challenges in power distribution, coupled with the increasing climate incidences, is power distribution/supply going to be an investable proposition?



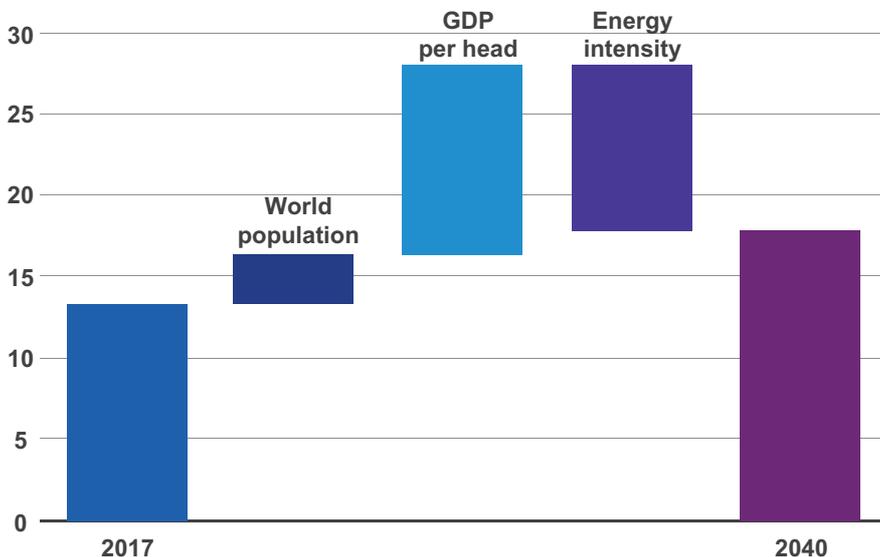
The session on Investing amidst transition at ENRich 2019 will discuss the above issues to contribute to the evolving debate and assess the options for sustainable resolution.





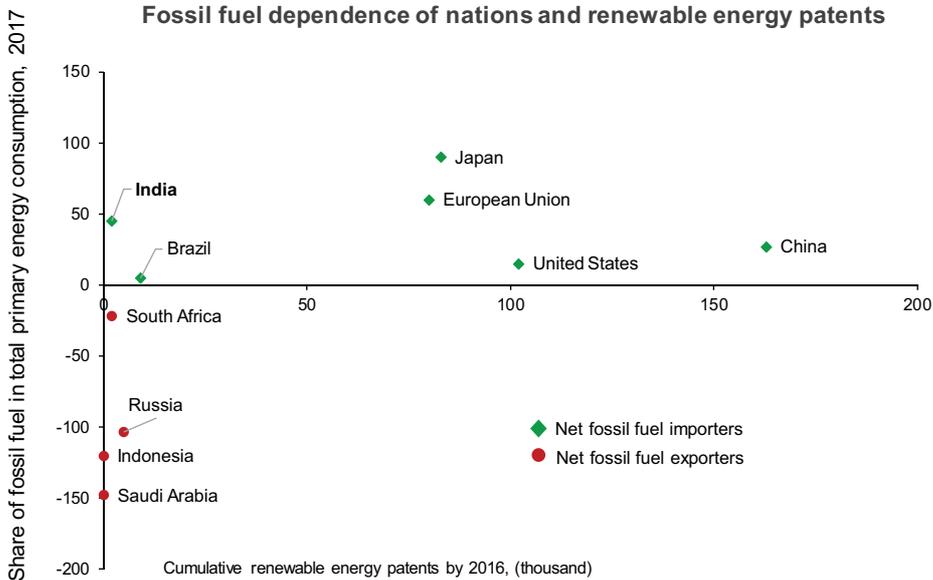
Increase in primary energy demand, 2017-2040

Billion toe



Source: BP Energy Outlook, 2019

Fossil fuel dependence of nations and renewable energy patents



Source: BP, IRENA



Featured Speakers

Gurdeep Singh

Chairman & Managing Director, NTPC Limited

Seasoned power sector expert with more than 27 years of experience in the sector ranging from business development, projects and operations



Nitin Prasad

Country Chair, Shell India

A Fortune 40 under 40 awardee with cross-cultural experience in technology and energy; leading strategy and innovation initiatives



Pankaj Mehta

Vice President, Strategy Development, Reliance Industries Ltd.

Engaged in strategy development for the Petrochemicals business. More than 20 years' experience; worked across functions - business development (projects), R&D, industry affairs & government co-ordination etc. across Petrochemicals, Life Sciences and Telecom sectors



Vinod Giri

Head – Direct Investments,
National Investment and Infrastructure Fund (NIIF)

Experienced investment banker; worked across the investment management life cycle and private equity space



Manish Aggarwal

Partner and Head – Special Situations Group (SSG),
KPMG in India

Infrastructure M&A and transactions specialist with 22 years of experience. Advised large Indian and global strategic investors. Currently leads large restructuring / resolutions across sectors



Arvind Mahajan-Moderator

Former Head of Infrastructure, Government and Healthcare (IGH), KPMG in India

Close to four decades of management consulting and industry experience; led strategic growth and transformation initiatives.



Session timing:

1215 to 1315 Hrs

on

6th November 2019

KPMG in India contacts



Nilaya Varma
Partner and Leader
National – Markets Enablement,
KPMG in India

Mobile: +91 98100 85997

Email: nilaya@kpmg.com



Anish De
Partner, National Head,
Energy and Natural
Resources, KPMG in India

Mobile: +91 98104 53776

Email: anishde@kpmg.com



Manish Aggarwal
Partner and Head
Special Situations Group (SSG),
KPMG in India

Mobile: +91 98205 84506

Email: manishaggarwal@kpmg.com

Follow us on:

kpmg.com/in/socialmedia



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2019 KPMG India, an Indian Partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.

This document is for ecommunications only.

Printed in India