

# 'Energy growth needs will be closely linked to just how quickly the economy expands, and to the energy-policy landscape'

At a workshop on 'India Energy Outlook' held today, eminent experts deliberated on how India will meet its growing energy demand as the country is set to become the main driver of global demand from the mid-2020s, taking over from China.

**New Delhi, April 13:** India is playing a leading role in shifting the centre of gravity of the global energy system towards Asia. It is now the world's third-largest energy consumer, yet there is little doubt that its energy needs will continue to increase. Rising incomes and population growth will continue to lead to increased demand for goods that require energy to produce and to use. Developments in India's energy system will have far-reaching consequences for the global energy markets, reflecting the country's growing weight in international energy balances and rapidly increasing fuel imports. The International Energy Agency's (IEA) latest projections make India the main driver of global demand from the mid-2020s, taking over from China. But the rate of growth and how energy needs will be met are far from certain; they will be closely linked to just how quickly the economy expands and to the energy-policy landscape.

To deliberate on India's energy challenges, a workshop was organized today to gather views and opinions from a range of distinguished experts from government, energy companies, international organizations, academia, the financial community and civil society. The workshop was organized by IEA and NITI Aayog (formerly Planning Commission), with the support of The Energy and Resources Institute (TERI).

Speaking on the occasion, **Dr Fatih Birol**, Chief Economist, International Energy Agency (IEA), said: "We believe that India is in the middle of a profound transformation, which is driven by the energy transformation. What matters to India, will matter to the

world. That's why this year we are focusing on India, and the *India Energy Outlook* will be published in November this year. India needs \$ 100 billion to meet its growing energy demand. Developments in India will have far-reaching consequences for regional and global markets. Nuclear energy will play a critical role in meeting energy requirements and also reducing greenhouse gas emissions. Though India's solar targets are ambitious, they can be met, and India can provide an example to other countries. As far as fossil fuels are concerned, India will become more exposed to the international markets. So oil security will be an issue for India, as the country's reliance on the global energy market will increase in times to come. India is set to become the main driver of the global energy demand from 2020s, which will depend on the economic and energy policy landscape."

**HE Piyush Goyal**, Honourable Minister of State with Independent Charge Ministry of Power, Coal and New & Renewable Energy, India, said: "If you look back at our ancient Indian traditions, we have a history of energy security, conversation of natural resources and recycling, where nothing goes waste. But our government has inherited a situation, where one-fourth of our population still does not have access to electricity. Power distribution companies are going through a crisis. We need to minimize our industrial waste, curb air pollution and provide a new thrust to renewables. We are working towards generating 100 billion units of electricity in the next three years. We are also looking to scale up the renewable sector from the present six per cent to 15 per cent. We have development imperatives we cannot wish away. We need to scale up all sources of energy, while doing a balancing act in our energy mix. As far as carbon emissions are concerned, we are one of the lowest per capita emitters in the world. The 'Polluters Pay' principle must be implemented – our government has already increased the cess on coal. We need to take up an affirmative agenda on energy so that our future generations inherit a cleaner and greener future."

Said **HE Dharmendra Pradhan**, Honourable Minister of State with Independent Charge Ministry of Petroleum & Natural Gas, India: "This workshop will provide a broad view of our challenges, problems and the emerging role of India in the world market. The precondition for growth is energy security. Today, we have 15,000 km of gas pipelines; our government's target is to build another 15,000 km of gas pipelines. We need to incorporate new technologies, innovations and knowledge exchange to meet our energy challenges. We need to formulate clear policies so that the subsidies reach the targeted poor populations. We are also working towards a new fiscal policy for gas pricing. We need to address the ambitions and aspirations of the people."

Said **HE Arvind Panagariya**, Honourable Vice-chairman, NITI Aayog, India: "India is set to become the fastest growing economy in the world. We are working towards a growth rate of 8-10 per cent in the next 15 years. India needs to rapidly expand its energy market, as one-fourth of the people are still without electricity and energy use is

also increasing rapidly. We will need a new national energy policy. The power minister has already turned around the coal sector, and now diesel prices are aligned to market prices. We have domestic challenges as well – our cities are polluted, people are suffering from various diseases and indoor air pollution too is taking a toll on poor people. We need to take away the subsidies from rich people and use that money to provide clean energy to poor people. As far as climate change is concerned, much of the responsibility lies with rich countries; India's per capita emissions are one of the lowest in the world."

**Dr Leena Srivastava,** Acting Director-General, TERI, said: "During the past four decades, TERI has shared knowledge and innovations to various stakeholders in the energy value chain. We have been highlighting the vulnerabilities in our energy systems. We need to challenge the subsidy mindset, and move towards financial inclusion of all sections of society. To address the challenges of energy-demand management, it is important to take stock and make the correct choices. We need to step up the pace of transformation and take up opportunities to provide affordable energy, affordable technologies, capital credit, mobilize various stakeholders, provide incentives and monitor progress. To achieve this, we need more investment in R&D in this sector. We need better coordination between the Centre and the States to widen the energy canvas."

### India's growing energy pie

In any feasible scenario, India will have to deal with some formidable challenges if it is to ensure reliable, affordable and clean energy. Around one-quarter of the population currently lacks access to electricity. Growing reliance on energy imports has made energy security a pressing concern, increasing India's exposure to volatile international fossil fuel prices. India is already the world's fourth-largest oil importer, third-largest coal importer and fourth largest importer of liquefied natural gas. A huge amount of investment in energy infrastructure needs to be financed, especially in the power sector. And much needs to be done to reduce local pollution and to deliver on the commitment to contribute to global efforts to address the threat of climate change, through measures such as the National Solar Mission, under which the nation's solar target by 2022 has been drastically increased to 100 GW (from 20 GW previously).

The 2015 edition of the IEA's flagship *World Energy Outlook*, to be released on November 10, will include an in-depth assessment of India's energy sector and its prospects to 2040. Among the themes that were discussed during the workshop included:

- Policy, economic and demographic drivers that will shape the size and composition of energy demand to 2040;
- Power sector infrastructure needs to sustain growth of the economy and expand access to reliable and affordable electricity supply;
- Prospects for increased production of renewable and nuclear energy;
- India's oil, natural gas and coal supply: to what extent will domestic production temper growth in imports?

#### About NITI Aayog

NITI (National Institution for Transforming India) Aayog is the Government of India's primary think-tank tasked to provide governments at the central and state levels relevant strategic and technical advice across the spectrum of key elements of policy. It replaced the Planning Commission on January 1, 2015. The NITI Aayog seeks to put an end to the tardy implementation of policy by fostering better inter-Ministry and Centre-State coordination. Further, it seeks to create a knowledge, innovation and entrepreneurial support system and is tasked with the monitoring and evaluation of government programmes.

#### About International Energy Agency (IEA)

The IEA is an autonomous organisation which works to ensure reliable, affordable and clean energy for its 29 member countries and beyond. The IEA has four main areas of focus: energy security, economic development, environmental awareness and engagement worldwide. Founded in response to the 1973/4 oil crisis, the IEA's initial role was to help countries co-ordinate a collective response to major disruptions in oil supply through the release of emergency oil stocks to the markets. While this continues to be a key aspect of its work, the IEA has evolved and expanded. It is at the heart of the global dialogue on energy, providing authoritative statistics, analysis and recommendations.

#### About TERI

The Energy and Resources Institute (TERI) is an independent, not-for-profit research organization deeply committed to every aspect of energy, environment, and sustainable development. From providing environment-friendly solutions to rural energy problems, to helping shape the development of the Indian oil and gas sector; from tackling global climate change issues across many continents to enhancing forest conservation efforts among local communities; from advancing solutions to growing urban transportation and air pollution problems to promoting energy efficiency in Indian industries, the emphasis has always been on finding innovative solutions to make the world a better place to live in. All activities at TERI move from formulating local and national-level strategies to suggesting global solutions tackling critical energy and environment related issues.

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