

Towards Energy Security and Inclusive Energy Transitions

PLENARY SESSION SUMMARY

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Making Words Count @WSDS 2023

Energy security is usually seen from the supply-side perspective. However, it is equally important to underline that the demand side has an extremely important role in furthering energy security. We need to keep in mind that nobody is left behind in our quest to meet the demand for energy from newer sources.

Mr A. K. Saxena Senior Director, TERI

Green hydrogen will be a part of India's success, and it will be a pillar of our energy dialogue in the future. One year ago, the Russian invasion of Ukraine kicked off a huge shift and how we think of our energy systems. We have not changed course but simply the speed at which we reach our end destination. Our sustainability and climate goals remain the same. Our ambition is now even higher. Accelerating the roll-out of renewables is a strategic investment in our sustainable future and economic growth. It is the key to unlocking our energy security.

H.E. Ms Kadri Simson European Commissioner for Energy

Hon'ble Prime Minister Shri Narendra Modi's 'Lifestyle for the Environment' mission essentially looks to citizens to be the custodians of the planet and not just the government. For a country like India, nimble and agile policies, as well as substantial government actions, are required to facilitate new energy sources. A central policy design dilemma is: how do you provide the protection or how do you encourage renewables while ensuring affordability? The answer to that obviously lies in carefully targeted subsidy schemes.

Mr Suman Bery

Vice Chairperson, NITI Aayog, Government of India

The G20 countries have to accelerate the energy transition. It is vital to provide more funding to developing countries to ensure that the twin objectives of energy access and energy transition are met. There is no pathway to 'net zero' without addressing energy poverty systematically. So, we must use every opportunity to act decisively.

Ms Damilola Ogunbiyi CEO and Special Representative of the UN Secretary-General for Sustainable Energy for All

We have to focus on the demand and energy efficiency side along with decarbonizing the energy supply. Every time somebody drives down the streets of Delhi or London in a 4-wheeler, 3-wheeler, or 2-wheeler, if it is an internal combustion engine, then they will be turning 75% of the energy into heat and only 25% of energy into kinetic energy. If we switch to battery electric vehicles, 90% or more of the energy will provide mobility. To reach net zero, we have to decarbonize the energy supply and, in particular, decarbonize the electricity supply. But it is also important for us to focus on the demand side, energy efficiency, and energy productivity.

Lord Adair Turner

Chairman, Energy Transitions Commission

India has significant potential to become a leader in renewable energy technologies. We must work together to find innovative solutions for a sustainable future.

Prof. Kazuhiko Takeuchi President, Institute of Global Environmental Studies

We are transitioning in the energy world, and India is perfectly poised to build, accelerate, and benefit from it. Clean, green molecules are key resources to decarbonize the base sectors such as steel, ammonia, and shipping.

Dr Jon Creyts Chief Executive Officer, Rocky Mountain Institute Global developments tell us that we are moving to a new normal. We have to do more than just put on our life jackets; we must navigate through rough waters ahead of geopolitical change, economic change, and climate change. We are all on the same boat, but I am afraid that the boat is leaking.

Mr Arne Walther

Former Chairman, International Energy Agency

The policymakers and regulators need to be nimble and need to look at what is needed. There is a need for convergence in terms of ideas, in terms of policies and regulations. And I must say, India stands as a shining example of what ambition would look like and how we can catalyse very large-scale interventions.

Mr Saurabh Kumar

India Head, Global Energy Alliance for People and Planet

If we really emphasize energy efficiency, which is the first fuel and rightly called so, we can reduce the demand for energy, and when we reduce the demand for energy, we will reduce the infrastructure investment costs and we do not have to ask for finance from the North. We need it, and we deserve to have it, but we do not have to ask for that much more.

> Ms Seema Paul Program Director, Sequoia Climate Foundation

Actionable Messages

Message I: It is important to have nimble and agile policies along with substantial government actions for facilitating new energy resources. Carefully targeted subsidy schemes would encourage renewables while ensuring affordability.

Message 2: Creating common, transparent, and interoperable standards across the complex global supply chain is essential. Engagement on Scope 3 emissions, involvement of MSME sectors, and pulling forward entrepreneurial activity will ensure solutions towards sustainable development.

Message 3: Producers of low-carbon steel, low-carbon cement, and other materials must be rewarded so that those countries and companies buying these products can gain confidence about contributing to global climate goals.

Message 4: Hydrogen can act as the best solution for decarbonizing heavy industry and other hard-to-abate sectors. Electricity grid integration and regional interconnections should also be prioritized to improve energy security.

Message 5: We need action to end energy poverty. We need to promote a just energy transition. To meet the twin objectives of energy access and energy transition, more funding should be provided for developing countries.

Narrative

The plenary session titled "Towards Energy Security and Inclusive Energy Transitions" was conducted as part of the World Sustainable Development Summit (WSDS), the annual flagship event of The Energy and Resources Institute (TERI). Energy security has been one of the central pillars for countries around the world, as energy is essential for human development and economic growth. Energy security, according to the International Energy Agency, is the uninterrupted availability of energy sources at an affordable price. The Russia–Ukraine conflict situation has an impact on energy security, especially in the European Union (EU), where countries are speeding away from their reliance on fossil fuels. In this background, the aim of the session was to explore the imperatives of inclusion in energy transitions in terms of availability, accessibility, affordability, awareness, acceptability, reliability, demand, and supply policy interventions. The moderator for the session was **Mr A K Saxena, Senior Director, TERI**.

During the thematic address, **Mr Suman Bery, Vice Chairperson, NITI Aayog, Government of India,** gave an overall idea of the prevailing uncertainties and upcoming hard political decisions. In the beginning, he highlighted India's impressive record and progress in various performance indices. He then put forward that carefully targeted subsidy schemes are the best solution for the policy design dilemma of affordability while ensuring energy security through renewables. Mr Bery pointed out that to facilitate energy security in India, substantial government action is required. Mr Bery shared a major argument that investment in renewables is supported by expectations of a sustained high oil/gas price. He opined that nimble and agile policies are essential in a developing nation to guarantee energy access for all. Mr Bery concluded by mentioning the need for diversification for an uninterrupted power supply in a country like India, where blackouts and brownouts are frequent.

Following the thematic address, **H.E. Ms Kadri Simson, European Commissioner for Energy,** delivered the ministerial address. She initiated by providing an update on the faster energy transition happening in Europe and their commitment to becoming climate neutral by 2050. She remarked that the Russian invasion of Ukraine kicked off a huge shift in how Europe thinks about its energy system. Highlighting the role of renewables in sustainable development, she emphasized that strategic investment through renewables is the key to unlocking energy security. Ms Simson spoke about the EU India Clean Energy and Climate Partnership and EU India green hydrogen forum, through which collaborations across various sectors, such as energy efficiency, wind energy, and green hydrogen, are happening. She highlighted that electricity grid integration and regional interconnections will help India reach its ambitious goals. She said that hydrogen would be the pillar of future energy dialogues and envisaged that the EU would work with India and its International Solar Alliance to diversify their supply chain and bring resilience. Ms Simson opined that the heart of Europe's energy transition is just transition and leaving no one behind. She concluded by summing up that all the efforts are extended to tackle energy poverty across the globe, support coal regions in the transition to a more diversified future, and, finally, close the gender gap.

Following the ministerial address, **Ms Damilola Ogunbiyi, CEO and Special Representative of the UN Secretary-General for Sustainable Energy for All,** delivered the leadership address. She mentioned the necessity of promoting energy transition in the end-use actors and productive use applications while advancing to end energy poverty. She shed light on the agriculture and micro, small, and medium enterprise sectors that play an important role in reducing poverty. Ms Ogunbiyi then explained the role played by her organization through the programme 'Universal Energy Facility' to significantly speed and scale up energy access across Sub-Saharan Africa to uplift people out of poverty. She commented on the role of G20 members in strengthening and accelerating energy transitions during this critical decade of action. Reminding to fast-track the Bali Compact, she underscored the importance of funding for developing countries to meet the twin objectives of energy access and energy transition. Ms Ogunbiyi supported India's G20 presidency and committed to joining the pathway.

Lord Adair Turner, Chairman, Energy Transitions Commission, shared that Energy Transitions Commission's main focus is climate change: how to limit climate change and how to get emissions down to do that. He mentioned the catastrophic effects of every 0.1°C above 1.5°C, especially for countries like India. He underscored that for all countries to reach net zero, they must decarbonize the energy sector. Lord

Turner stressed that India's target of 500 gigawatts of zero-carbon electricity by 2030 is a crucial part of the country's decarbonization strategy and said it is important to focus on the demand side, energy efficiency, and energy productivity. Lord Turner urged everyone to recognize the potential role of 'electrification' for a clean and efficient economy through the example of e-vehicles.

Following Lord Adair Turner's address, the discussion steered towards India's potential to become a leader in renewable energy technologies by integrating local communities, especially MSMEs and farmers. Including women in shaping India's sustainable development policies is crucial. **Prof. Kazuhiko Takeuchi, President, Institute for Global Environmental Strategies,** also made a point on how he sees Japan and India's collaboration towards finding innovative solutions for a better future. His organization IGES and TERI have been engaged in joint efforts such as the Japan–India technology matching platform and is involved in research on technology co-innovation to explore how the two can strengthen collaboration on innovative technologies.

Dr Jon Creyts, Chief Executive Officer, Rocky Mountain Institute, emphasized solar and wind as the most economical forms of new energy and, at the same time, scaling hydrogen as a fuel and use of plentiful domestic solar is an important lever for India to develop and will reduce the country's dependence on foreign fuels, thereby, supporting National Energy Security. Dr Jon Creyts stressed on India being able to generate momentum towards differentiated markets for low carbon products, collaborating design of innovative financial instruments to help attract capital flows in developing economies in terms of zero-emission vehicles, rooftop solar, net zero construction, big industrial investments in green production, mobilizing finance for the Global South and focus on the interventions that can bring forward marginalized communities, local economies to participate in the energy transitions, while it holds the G20 presidency.

Mr Arne Walther, Former Chairman, International Energy Agency, highlighted the reasons responsible for our slow pace in achieving endeavours such as energy transitions and reaching our climate goals. The reasons are the escalating war in Europe and the weaponization of energy for geopolitical purposes leading to skyrocketed energy prices. Mr Arne Walther mentioned the widening gap between policies and climate and carbon emission targets and the expected increase in the energy demand by 10% by 2030. He said that despite all that is being done to scale up renewables, the demand for fossil fuels is increasing. Thus, Mr Walther opined that we need both energy transition and energy addition. Investments in energy need to be ramped up both in the renewables and the oil, gas and carbon capture storage (CCS). Mr Walther said that stepping up the financial and technological assistance to the Global South would be an endeavour of the Global North.

Mr Saurabh Kumar, India Head, Global Energy Alliance for People and Planet, emphasized the existence of decentralized solar potential in India from the economic and social perspective, which is community based and involves and impacts communities. He touched upon the points such as government investments in renewable sectors, stewardship, and leadership of NITI Aayog in the electrification of transport, the requirement of risk guarantee payment, and security mechanisms to bring in more investments from private sectors. He discussed the Revamped Distribution scheme of the Power Ministry, catalysing nearly INR 30,000 crore of investment over the next three to four years. He mentioned that policymakers and regulators need to be nimble and the requirement of convergence in thoughts and ideas in terms of policies and decision-making with respect to sustainable development.

The leadership address by Mr Saurabh Kumar was followed by the leadership address by **Ms Seema Paul**, **Program Director, Sequoia Climate Foundation**. Ms Seema Paul talked about the vital role played by India in setting the target on renewable energy and how it has been able to accelerate solarization by learning from its own experiences. She mentioned that reducing the demand for energy will reduce the cost of infrastructure, thereby reducing our dependence on financial support from the North. Bringing out the macroeconomic security aspect of energy security, she said that according to a report, India holds a 53-billion-dollar market for productive enterprises. Ms Paul also emphasized the point of digitization and providing consumers with incentives to increase or decrease the use of energy to meet sustainability goals.
