

MINUTES OF SECOND IETP MEETING

India Energy Transformations Platform (IETP)

Proceedings of the second meeting

Date: Thursday, February 21, 2019

Time: 3 pm to 6 pm

Venue: Le Meridien, New Delhi

Attendees:

- Shakti Sustainable Energy Foundation (SSEF):

- Mr. Chinmaya Acharya

- Ms. Disha Agarwal

- Ms. Elisha George

§ Center for Study of Science, Technology and Policy (CSTEP):

- Dr. Anshu Bharadwaj

- Mr. Thirumalai NC

- Ms. Poornima Kumar

- Mr. Gopal Berry

§ Swiss Agency for Development and Cooperation (SDC):

- Dr. Anand Shukla, Senior Thematic Advisor at SDC, Embassy of Switzerland

- Ms. Sakshi Dasgupta, Swiss Cooperation Office India, Embassy of Switzerland

Core Group members:

- Dr. Geeta Gouri, Former Member, Competition Commission of India

- Mr. Pankaj Batra, Former Chairperson, Central Electricity Authority

- Dr. Arunabha Ghosh, CEO, Council on Energy, Environment and Water

- Dr. Winfried Damm, Programme Director, GiZ
- Dr. Satish Kumar, President and Executive Director, Alliance for an Energy Efficient Economy
- Prof. Ayodhya Tiwari, ETH Zurich (remotely)
- Ms Shikha Rokadiya, Researcher, International Council on Clean Transportation (on behalf of Dr. Anup Bandivadekar, Program Director)

Core Group members and special invitees not present:

- Dr. R. R. Sonde, Thermax
- Mr. S. K. Soonee, Advisor, Power System Operation Corporation Limited
- Prof. Geetam Tiwari, Indian Institute of Technology, Delhi
- Mr Chetan Maini, SunMobility
- Mr. Amit Kapur, J. Sagar Associates
- Mr Dipak Dasgupta, TERI
- Mr. Shalabh Tandon, Regional Head of Operations, International Finance Corporation

Meeting Proceedings:

- Ahead of the second meeting of the IETP, Core Group members and special invitees were invited to make brief presentations on non-linear, transformative ideas in the energy sector that they believed merited further research.
- The meeting commenced with a presentation by Dr Anshu Bharadwaj (CSTEP), who outlined the agenda for the meeting. He also touched upon the need to explore future energy pathways for India that satisfy different national priorities compatible with global climate commitments and India's domestic requirements alike.
- A discussion ensued on how to prioritize ideas and whether to consider aspects of feasibility of implementation while deciding upon the research topics to pursue. The general agreement was to focus on abstract but viable topics, and to explore the 'what' and 'why' aspects of potential topics first, especially because ease of implementation could greatly improve in future with technological advances.
- Following this were a round of presentations by the attendees, beginning with Dr Anand Shukla (SDC). He explained SDC's current projects that are in line with the IETP's objectives. These included one on low carbon cement production (reducing clinker production in the cement production process), CapaCITIES (climate resilient city development), and BEEP (which

aims to make the ECBC more stringently used). He also presented the potential behind exploring waste management strategies for India.

- Mr Satish Kumar pointed out, in conjunction with this, that many projects in India are piloted but never scaled up, and that more integrated research would therefore be necessary. A discussion on institutional and other shortcomings associated with implementation ensued. Market design was highlighted as a very important factor to consider in this context, by Dr Geeta Gouri.

- Next, Professor Ayodhya Tiwari (ETH Zurich) provided context to the aspect of reducing lifecycle emissions from buildings (and cement), asking the group to consider that challenging situations often act as impetus for people to adapt themselves to changing conditions, and that these often entail simply adopting existing beneficial technologies on a large scale.

- Dr. Geeta Gouri stressed on the interventions that can lead to complete decentralisation of the energy sector

- Mr Pankaj Batra's presentation delved into energy demand, and highlighted three ideas:

- o Demand response (involving incentives for reducing non-essential loads)
- o Electric vehicles (in conjunction with demand response)
- o Grid-scale non-chemical storage solutions

- Mr Satish Kumar then discussed demand-side changes involving:

1. Creating a culture of energy efficiency
2. Treating energy efficiency as a resource
3. Thermal comfort for all and reducing food waste

- In relation to this, it was agreed that low awareness was a major problem that needed to be addressed, and that behavioural energy efficiency could have significant emissions reduction impacts.

- Dr Anurabha Ghosh (CEEW) then presented three ideas for India's low carbon transition, emphasizing a price model and captive markets to achieve them:

1. Need to tap the vast potential for distributed energy production and consumption
2. Green hydrogen in industry for high intensity heat
3. Climate risk insurance, carbon markets where carbon is priced

He also presented three ideas along the lines of the 2oC target:

1. Modular nuclear reactors which are faster and safer to deploy
2. Direct air capture as a measure of extreme mitigation
3. Solar radiation management

- Dr Winfried Damm (GiZ) presented the following thoughts on energy and emissions reduction in India, highlighting that political will was a major factor in achieving them:

1. Penalize carbon and promote renewables and energy efficiency
2. PPAs for new coal fired power plants should not bind utilities to pay fixed costs. Rather, all new coal PPAs should only be variable-cost based.
3. Grid planning
4. CCS in terms of reforestation
5. Carbon tax

- Shika Rokadiya (ICCT) then discussed transport and electrification, emphasizing the need for targeted policies to drive deep electrification of the transport sector.

- Following this round of presentations by the members, Dr Anshu Bharadwaj presented CSTEP's thoughts on transformational, nonlinear ideas, in terms of:

1. Coal gasification
2. Solar RTPV's potential
3. ISA leadership and India
4. Space-based solar
5. Transformations in the industry sector
6. Agriculture (Zero Budget Natural Farming)

Action points and next steps:

The group agreed that the ideas chosen must be game-changing, although maybe abstract at this stage. The research pursued under the aegis of this Platform must be novel.

The meeting concluded with the agreement that the Secretariat will analyse the ideas that had evolved from the meeting. The shortlisted ideas would be shared with the members for freezing the final set of research themes.

Potential dates for the next meeting will be circulated along with the shortlisted ideas.