

Energy Transitions Commission India

Taj Mansingh Hotel
No.1 Man Singh Road
New Delhi – 110001

25th June 2018

2nd Stakeholder Engagement Meeting

The integration of 175 GW of renewable capacity will, according to recent studies, not require a fundamental re-engineering of the Indian power system. A recent comprehensive study on the integration of 175 GW of renewable capacity in India concluded that the current system has the necessary flexibility capabilities to integrate such a significant share of renewable electricity (NREL, LBNL, POSOCO, 2017). However, going beyond the medium-term goal of 175 GW of renewable capacity after 2022 would most likely require more significant and structural change to infrastructure and policy and regulatory frameworks in the Indian electricity system. In order to provide policy-makers and private sector players' confidence that a significantly increasing share of renewables penetration is technically possible beyond 2022, The Energy Transitions Commission India project is undertaking the detailed technical and financial feasibility analysis that is still required.

Agenda

10:30 – 11:00 – Registration & coffee

11:00 – 12:30 – Capacity scenarios till 2030

To facilitate and support Government of India's objectives of transitioning to an electricity system with a high share of renewable energy, ETC India is studying feasible capacity scenarios for renewable and conventional energy till 2030. This will be an input to the analysis on balancing, reserves and flexibility requirements for grid integration until 2030. This research will contribute to reducing the current uncertainty among stakeholders in India on the future investment portfolio.

- Introduction and update on ETC India – Dr Ajay Mathur, DG, TERI, and Lord Adair Turner, Co-Chair, Energy Transitions Commission International
- Presentation on capacity scenarios to 2030 – TERI ETC India project team
- Discussion

12:30 – 13:30 – Lunch

13:30 – 15:00 – Flexibility needs and options by 2030

As the energy mix evolves in India, existing flexibility mechanisms will become increasingly strained. ETC India is analysing the flexibility requirements and available flexibility resources under the proposed pathways on the time horizon of 2030, in order to reach higher levels of clean energy penetration in India. ETC India's initial approach and methodology for the quantification of flexibility needs and options will be presented.

- Presentation on the assessment of flexibility needs and options by 2030, Climate Policy Initiative London
- Discussion

15:00 – 15:30 – Coffee break

15:30 – 16:30 – Demand analysis

A robust demand-side analysis is crucial to the effective planning of the investment, technology mix and operation of the electricity system. ETC India is analysing the projected annual electricity demand for all sectors and for each Indian state – and by aggregation national level – to 2030, through detailed and context-specific modelling. ETC India will present interim results for the Baseline and Transition Scenarios.

- Baseline and transition scenarios for demand to 2030 – TERI ETC India project team
- Discussion

16:30 – 17:30 – Stranded assets: discussion of a TERI discussion paper

There is concern that stressed assets may pose significant risk of disruption to the Indian power and financial sectors. TERI has studied the macroeconomic as well as sector-specific factors that have driven this situation; the likely trajectory for the issue of stranded assets in the coal sector; and the policy options that may exist for a desirable outcome. TERI will present the findings of its discussion paper.

- Assessment & modelling of stranded assets – TERI
- Discussion