About TERI

The Energy and Resources Institute (TERI) is a leading think tank dedicated to conducting research in the areas of energy, environment and sustainable development. TERI was established in 1974 as an information centre on energy issues. Over the following decades, it evolved into a research institute whose policy and technology solutions transformed people’s lives and the environment.

About Electricity and Fuels Division (EFD)

Electricity is a crucial sector for the development of a modern, prosperous and sustainable economy. Sustainable development of electricity sector with primary focus on reduction of carbon footprint by using the available or in-house developed tools for modeling forms core of division’s work. We carry out utility/corporate centric and thematic research and analytical studies in conventional as well as emerging areas leading to techno-economic analysis, policy and regulatory insights. Collaborative research in partnership with academic, utility and related as well as international peer organisations, pilot implementations, promoting cross-learning and exchange of best practices and stakeholders’ perspective through the platforms created by us or through focused group interactions, etc., are integral part of our work.

During the last three decades, we have achieved several milestones in the power sector, and our focus during the last few years has been on Energy Transition, Just Transition, Energy Storage Systems, E-mobility, Demand Side Management, Smart Grid, Green Hydrogen, etc.

Thrust Areas of the Division

**Energy Transitions**
Committed to fostering deployment of low carbon pathways

- Identify key challenges and suggest actions, policies and finance requirements to achieve the targets in the medium and long term
- Focus on the decarbonisation and low-carbon pathway studies at the national and state level
- Integrated Resource Planning

**Just Transition**
Aspire to promote an inclusive worldview & build resilience

- Socio-economic analysis of moving away from coal
- Promotion of Just Transition dialogue
- Planning for a post coal future

**Demand Side Management**
Comprehending energy ecosystem through a new lens

- Load research and DSM Action Plan based on emerging technologies
- Water-Energy-Food nexus
- Direct benefit transfer (DBT) for electricity

**Fuel & Emission Control**
Decoding the unseen to leap into the future

- Emission control strategies and technological options for thermal power plants
- Environmental and economic impacts
- Green hydrogen

**Smart Distribution with Storage**

- Smart Grid and Renewable Integration
- Demand Side Management
- Integrated Resource Planning
- Strategy for deployment of grid-scale battery energy storage systems
- Battery storage technology option to integrate variable renewables into the power system, in particular solar

**E-Mobility**
Peeping into the future

- Adoption of electric vehicles and charging infrastructure
- Grid integration and smart controlled charging

**Thrust Areas of the Division**

- Energy Transition
- Just Transition
- Demand Side Management
- Fuel & Emission Control

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- E-Mobility

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