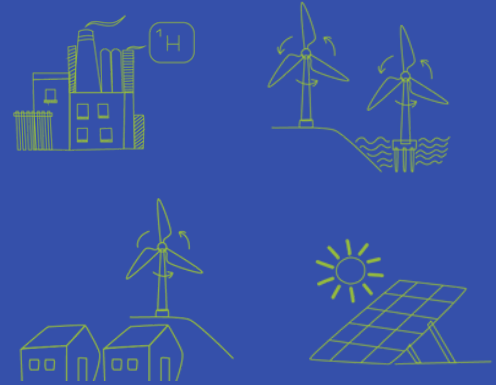




Accelerating India's Energy Transition for People, Nature and Climate

Silver Oak, India Habitat Centre, New Delhi
July 22-23, 2024



DAY 1

JULY 22, 2024

Registration begins at 10 am

10:30-11:30

Inaugural Session: Accelerating India's Energy Transition for people positive, nature positive and climate positive outcomes

Welcome Address

- **Madhav Pai**, CEO, WRI INDIA

Special Address

- **Pramod Rao**, Executive Director, Securities and Exchange Board of India
- **Dr. Sukanya Chakraborti**, Chief Technology Officer, KABIL, Government of India
- **Dr. Binu Parthan**, Deputy Director, Country Engagement and Partnerships, International Renewable Energy Agency (IRENA)
- **Saurabh Kumar**, Vice President-India, Global Energy Alliance for People and Planet (GEAPP)

Keynote Address

- **Mozaharul Alam**, Acting Head, UNEP India Country Office
- **Bhupinder Bhalla**, Secretary, Ministry of New and Renewable Energy*

Chief Guest's Address

- **Shripad Yasso Naik**, Union Minister of State for Power and New and Renewable Energy, Government of India

Closing Remarks

- **Jennifer Layke**, Global Director, Energy Program, WRI

11:30 – 12:00

Tea / Coffee break

12:00-13:30

Thematic Session 1: Energy transition for All: Access to resources for inclusive and equitable transition

India has made significant progress on household electrification over the last decade. However, reliable supply continues to be a challenge – especially for the rural healthcare, education, MSMEs, agricultural and livelihood sectors. With intermittent and unreliable supply, these end users are forced to rely on expensive and polluting diesel generators, if they can afford it, severely impacting the possibility of socio-economic development outcomes.

With the Indian government announcing a host of policy measures and targets – including the 500 GW of renewable energy capacity by 2030, the PM-KUSUM and SuryaGhar schemes, there is a significant opportunity to link the unmet and under-met electricity demand, with the achievement of these renewable energy targets. This session will look at how India's ambitious clean energy goals can support an all-of-economy approach – which looks at food, land and water issues, as well as create new jobs and work opportunities – especially for the bottom 50% of the population.

DAY 1

JULY 22, 2024

12:00-12:15

Session Keynote

- **Suman Chandra**, Director, Ministry of New and Renewable Energy (MNRE)

12:15-13:15

Panel Discussion

- **Chair: Bharath Jairaj**, Executive Director, Energy, WRI India
- **Abhishek Acharya**, Director, Ministry of MOEFCC, Government of India
- **Roshan Mascarenhas**, Associate Director, SELCO Foundation
- **Katie Ross**, Senior Director, Climate, Economics, Finance, WRI
- **Sandhya Sundararagavan**, Head - Energy Transition, WRI India

13:15-13:30

Q&A

13:30-14:30

Lunch

14:30-15:45

Thematic Session 2: Achieving the Energy Transition: Challenges and Opportunities

This session will focus on opportunities and challenges facing the transition – especially in terms of implementation. Specifically, the session will look at the role of finance, carbon markets, institutional arrangements and regulations in India's energy transition efforts. The session will also focus on what states are experiencing in India's energy transition story, and what more needs to be done to help achieve India's targets.

14:30-14:45

Session Keynote by Dinesh Jagdale, Joint Secretary, Ministry of New and Renewable Energy, Government of India

14:45-15:30

Panel Discussion

- **Chair: Ulka Kelkar**, Executive Director, Climate, Economics and Finance, WRI India
- **Mahua Acharya**, CEO, International Energy Transition Platform
- **Ashish Tiwari**, Secretary, Department of Environment, Forest & Climate Change, Government of Uttar Pradesh
- **Soumya Garnaik**, Country Representative, Global Green Growth Institute
- **Ann Josey**, Fellow, Prayas Energy Group
- **Tirthankar Mandal**, Head, Energy Program, WRI India

15:30-15:45

Q&A

15:45-16:00

Tea



DAY 1

JULY 22, 2024

16:00-17:30

Thematic Session 3: Accelerating Decarbonization: Opportunities through Emerging Technologies

The International Energy Agency (IEA) Net Zero by 2050 roadmap says that achieving net-zero emissions by 2050 will require:

- A fourfold increase in the deployment of renewable energy technologies.
- Electrification of transport and industrial processes to increase the share of electricity in final energy consumption from 20% today to around 50%.
- The use of hydrogen, bioenergy, and carbon capture, utilization, and storage (CCUS) to address emissions from hard-to-abate sectors.
- Significant improvements in energy efficiency across all sectors.
- Expansion of energy storage solutions to manage the intermittency of renewable energy sources.

The path to net zero will require us to go beyond current technologies and seek the deployment of technologies and measures that are still being developed or are not commercially competitive. New and emerging technologies including those that improve existing technologies' performance will be required to achieve transformation change. This could include reduction in costs, and improvement in performance of RE and energy storage technologies; increased adoption of efficiency, electrification and green molecules in industry and transport; changes on the demand side and infrastructure development; while ensuring sustainability of supply chains and critical minerals required for these technologies are ensured. Recent advances in AI and data are also likely to open further avenues of driving the transition by providing firms and governments means to optimize energy use and balance demand with variable generation. This session will discuss recent research and trends in new and emerging technologies required to achieve an economy-wide transition.

16:00-16:10

Special Address by Dr. Anita Gupta,

Head of Scientific Divisions (HOD), Climate, Energy and Sustainable Technology (CEST) Division

16:10-16:20

Special Address by Girish Sethi, Senior Director, The Energy and Resources Institute (TERI)

16:15-17:15

- **Moderated by Pawan Mulukutla**, Executive Director, Integrated Transport, E-Mobility, Hydrogen and Clean Air, WRI India
- **Dr. Bipin Kumar Gupta**, Senior Principal Scientist, CSIR-National Physical Laboratory
- **Dr. Anil Kottantharayil**, Professor, IIT Bombay
- **Dr. Sreedevi Upadhyayula**, Professor, IIT Delhi
- **Dr. Laltu Chandra**, Professor, Department of Sustainable Energy Engineering, IIT Kanpur
- **Dr. Pratham Arora**, Assistant Professor, IIT Roorkee
- **Naveen Ahlawat**, Head, Power to X, Jindal Steel & Power Ltd
- **Suresh Babu Muttana**, Scientist E, Climate, Energy and Sustainable Technology, Department of Science & Technology

17:15-17:30

Q&A and closing remarks

17:30-18:00

High Tea

DAY 1

JULY 22, 2024

18:00 – 20:00

India Battery Circularity Alliance: Developing Circular and Sustainable Battery Value Chains

India's clean energy transition is fueled by expanding renewable energy generation and the growing adoption of electric vehicles, increasing reliance on lithium-ion batteries (LIBs). From 2021 to 2030, India's cumulative LIB demand is expected to grow from 22 GWh to over 600 GWh, with battery manufacturing capacity scaling up to 150 GWh annually. Access to critical minerals is essential for localizing the battery manufacturing value chain and ensuring energy security. The Government of India is securing critical mineral supplies through global partnerships and domestic mining. Establishing a circular LIB ecosystem can enhance energy security by recycling batteries to reduce import dependency. The session on 'Developing Circular and Sustainable Battery Value Chains' will launch the India Battery Circularity Alliance, promoting policy, implementation, and R&D solutions for optimizing battery circularity in India.

18:00-18:05

Opening Remarks by Madhav Pai, CEO, WRI India

18:05-18:10

Presentation on Circular and Sustainable Battery Ecosystem in India by Dr. Parveen Kumar, Senior Manager- E-Mobility, WRI India

18.10-18.15

**Address on India in the Global Clean Energy Transition
Mozaharul Alam, Acting Head, UNEP India Country Office**

18.15-18.20

**Special Address on Scaling up Battery Energy Storage Systems in India
Dr Kuldeep Rana, Scientist "E"/Director, Energy Storage/Circular Economy/e-mobility/PMGS Division, Ministry of New and Renewable Energy (MNRE)**

18.20-18.25

**Special Address on Securing the Battery Value Chain for India's EV Transition
Rajnesh Singh, Director, Ministry of Heavy Industries**

18.25-18.30

**Special address on R&D Opportunities for Sustainable Battery Supply Chain
Dr. Anita Gupta, Head of Scientific Divisions (HOD), Climate, Energy and Sustainable Technology (CEST) Division, Department of Science and Technology**

18.30-18.35

**Keynote Address on Enabling Circularity for EV Batteries
Sudhendu Jyoti Sinha, Adviser (Infra Connectivity & Electric Mobility), NITI Aayog**

18.35-18.45

**Chief Guest Address on Towards an Indigenous, Sustainable and Circular Battery Manufacturing Ecosystem in India
Amitabh Kant, G20 Sherpa**

18.45-18.50

Launch of Battery360 Alliance

18.50-18.55

Launch of conference proceeding - Battery Circularity and Raw Material Security in India



DAY 1

JULY 22, 2024

18.55-19.25

Session 1: Policy and Implementation Frameworks for Battery Ecosystem

Moderated by **Pawan Mulukutla**, Executive Director- Integrated Transport, E-Mobility, Hydrogen and Clean Air, WRI India

Panel Discussion

- **Rajat Verma**, Founder and CEO, Lohum Cleantech
- **Jennifer Layke**, Global Director, Energy, World Resources Institute
- **Dr. Amrita Goldar**, Senior Fellow, Indian Council for Research on International Economic Relations (ICRIER)
- **Thirupathy Srinivasan**, Lead & Senior Advisor, Tamil Nadu EV Taskforce
- **Dr. K. Balasubramanian**, Director, NonFerrous Materials Technology Development Centre (NFTDC)
- **Trupti Deshpande**, Senior Manager-Electric Mobility, Shakti Sustainable Energy Foundation
- **Dinesh Sekar**, Senior Manager- Supply Chain and Strategy, Amara Raja Energy & Mobility Ltd

19.25-19.55

Session 2: Enabling Industry Development for Battery Circularity

Moderated by **Chaitanya Kanuri**, Associate Director, Electric Mobility, WRI India

Panel Discussion

- **Prof. Siddhartha Mukhopadhyay**, Professor, IIT Kharagpur
- **A L N Rao**, Independent Consultant
- **Utkarsh Singh**, Co-Founder, BatX Energies
- **Gourav Dolwani**, Founder and CEO, LICO Materials
- **Rohan Singh Bais**, Director, Product and Technology, Ziptrax Cleantech
- **Darshan Virupaksha**, Founder, Nunam
- **Dr. Avanish Tripathi**, Assistant Professor, IIT Delhi
- **Dr. Ganesh Madabattula**, Assistant Professor, IIT Banaras Hindu University

19.55-20.00

Closing Remarks by **Chaitanya Kanuri**, Associate Program Director- E-Mobility, WRI India

20.00
onwards

Dinner

----- DAY 1 ENDS, SCROLL FOR DAY 2 -----

DAY 2

JULY 23, 2024

Registration begins at 9 am

09:30-12:00

**Thematic Session 4: Decarbonizing India's building sector-
Research goals for the future**

India has set an ambitious target to achieve a net zero economy by 2070. The commitment demands all sectors to align their development strategies towards this goal. As India's building and construction sector is growing at a rapid pace, the demand for essential construction materials like steel, cement, aluminum, bricks, and others is expected to increase multifold. Buildings consumed a third of India's total electricity production in 2023-24. As per CSTEP's systems dynamics model *Sustainable Alternative Futures for India (SAFARI)*, the building sector's contribution to India's total GHG emissions in 2020 was estimated at approximately 26%. To achieve decarbonization goals, strategies must address embodied operational and end of life carbon from buildings. This session will invite organizations to deliberate on key gaps in current research on reducing carbon across the whole building life cycle in India.

9:30-12:00

Roundtable Discussion

Facilitators: Sumedha Malaviya, Deepak Tewari, Shyny Sam, Dhilon Subramanian, WRI India and Fairuz Loutfi, WRI Mexico

Key discussants:

- **Dr. Sukhdeo Karade**, Chief Scientist, Central Building Research Institute (CBRI) Roorkee
- **Saswati Chetia**, Director, Greentech Knowledge Solutions Private Limited (GKSPL)
- **Dr. Soumen Maity**, Chief Technology Officer, Development Alternatives
- **Rajneesh Sareen**, Programme Director, Center for Science and Environment (CSE)
- **Tarun Garg**, Principal, RMI India Foundation
- **Mohak Gupta**, Associate Programme Director - Circular Economy and Resource Efficiency, Development Alternatives
- **Soumya Garnaik**, Country Representative, Global Green Growth Institute (GGGI)
- **Pratima Washan**, Senior Expert, Alliance for Energy Efficient Economy (AEEE)
- **Ashu Dehadani**, Director, Technical Development, Green Business Certification Inc (GBCI)
- **Shiv Kumar Batra**, Global Product Management Specialist, Carrier Corporation
- **Dr. Ankita Gangotra**, Cement and Steel Lead, Industrial Decarbonization and Carbon Removal, WRI US
- **Abhishek Chauhan**, Senior Manager- Cooling solutions, Smart Joules

12:00-12:30

Session summary by Roxana Slavcheva, Global lead Built Environment, WRI

12:30 - 12.45

ACE Closing Address by Deepak Sriram Krishnan, Deputy Director, Energy, WRI India12.45
onwards**Lunch**

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**To be confirmed*