

# Accelerating Clean Energy Innovation in India

14 September 2016

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- **Eric Lockhart**, National Renewable Energy Laboratory

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- **Dr. Sanjay Bajpai**, Department of Science and Technology
- **Varsha Joshi**, Ministry of New and Renewable Energy
- **Prakash D. Hirani**, NTPC Energy Technology Research Alliance (NETRA)

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# Solutions Center Background and Vision

CleanEnergySolutions.org

**The Clean Energy Ministerial (CEM) launched the Clean Energy Solutions Center in April 2011. The Solutions Center:**

- Is one of 13 CEM Initiatives, which include:
  - Global Superior Energy Performance Partnership
  - Super-Efficient Equipment and Appliance Deployment initiative
  - Global Lighting and Energy Access Partnership
- Helps governments design and adopt policies and programs that support the deployment of clean energy technologies
- Has more than 35 partners, including IRENA, IEA, IPEEC, Sustainable Energy for All, Bloomberg New Energy Finance and Leonardo Energy
- Is co-chaired by the U.S. Department of Energy and the Australian Department of Industry.



# Clean Energy Solutions Center

CleanEnergySolutions.org

## Goals

- **Serve** as the primary resource for clean energy policy information, assistance and peer learning for governments and government-affiliated practitioners.
- **Share** policy best practices, data, and analysis tools across countries.
- **Deliver** dynamic services that enable expert assistance, learning, and peer-to-peer sharing of experiences.
- **Foster** dialogue on emerging policy issues and innovation across the globe.

## Primary

- Government Policy Makers
- Advisors

## Secondary

- Private Sector Companies
- Energy Entrepreneurs and Investors
- Non-Governmental Organizations
- Civil Society
- Others Engaged in Clean Energy

## Target Audiences

# Ask-an-Expert: Our Experts in Action

CleanEnergySolutions.org



Connects policymakers to a global network of more than 30 energy experts for quick-response technical assistance on policies and programs relating to:



- Renewable Energy
- Energy Access
- Energy Efficiency
- Smart Grid
- Transportation
- Utilities

Delivered no-cost assistance for more than 160 requests from over 75 countries.



Please submit your question directly at [cleanenergysolutions.org/expert](https://cleanenergysolutions.org/expert)



# Dr. Renu Swarup, Department of Biotechnology



Dr. Renu Swarup is currently Senior Adviser to the Department of Biotechnology (DBT). She also holds additional charge of Managing Director, Biotechnology Industry Research Assistance Council (BIRAC) a Public Sector Undertaking of DBT setup to foster and nurture Innovation and Entrepreneurship Ecosystem in the Biotech system. A PhD in Genetics and Plant Breeding, Dr. Renu Swarup completed her Post-Doctoral at The John Innes Centre, Norwich UK, under Commonwealth Scholarship and returned to India to take up the assignment of a Science Manager in the Department of Biotechnology (DBT), Ministry of Science and Technology, GoI, in 1989. At DBT, she has been involved in developing, funding and monitoring programmes under the National Bioresource Development Board in the area of Energy Biosciences, Bio resource Development and Utilization and Plant Biotechnology - Bio prospecting, Tissue Culture and other Biomass associated programmes. As a science manager issues related to policy planning and implementation are also a part of her assignment. She was actively engaged in the formulation of the Biotechnology Vision in 2001, the National Biotechnology Development Strategy in 2007, and Strategy-II 2015-2020 as the Member Secretary of the Expert Committee. She was also a member of the Task Force on Women in Science constituted by the Scientific Advisory Committee to the Prime Minister. She is a Member of the National Academy of Sciences India and was also awarded the “Bio Spectrum Person of the Year Award” in 2012.

# Dr. Sanjay Bajpai, Department of Science and Technology



Dr. Sanjay Bajpai is Associate Head of Technology Mission Division at the Department of Science and Technology (DST), Government of India. In this role, Dr. Bajpai coordinates the department's initiatives for clean energy. He helps to plan, implement and monitor the department's foray in the area of clean energy. He is responsible for mounting up the DST's national initiative in clean energy and shaping major bilateral programmes with the US and UK in the area of Solar Energy, Building Energy Efficiency, Energy Storage, Smart grids and Clean Energy System. He holds a PhD from Indian Institute of Technology- Delhi.

# Varsha Joshi, Ministry of New and Renewable Energy



Varsha Joshi is currently the Joint Secretary under the Ministry of New and Renewable Energy, Government of India. At her current post Ms. Joshi is involved in the policy, regulation and facilitation for onshore/offshore wind, bioenergy, geothermal, tidal and hybrid energy, human resource development, training and skills augmentation for the renewable sector. Ms. Joshi has over two decades of experience in public administration and policy making in the geographically diverse regions of Delhi, Chandigarh and Arunachal Pradesh.

# Prakash D. Hirani, NTPC Energy Technology Research Alliance (NETRA)



Prakash Hirani joined R&D NTPC (Now NETRA) in 1991 and worked in the area of water/boiler chemistry, ambient air and Stack flue gas monitoring and analysis, development of value added products from waste and fly ash, environmental science, and alternative energy resources. Mr. Hirani's areas of interest include carbon mitigation, waste to energy, and environmental protection activities. He has seven years operation and maintenance experience at Coal & Gas Thermal power stations (TPS), and has worked in water/boiler chemistry, ambient air and stack flue gas monitoring and analysis, oil and lubricant, and coal sampling.

# Question and Answer Session

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## Questions



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## THANK YOU!

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