MECS Modern Energy Cooking Services

Office of the Principal Scientific Adviser to the Government of India

Manthan

ISA International Solar Alliance

EESL

MODERN ENERGY COOKING FORUM 2024 INDIA

3rd Edition

Loughborough University

UK Government

ESMAP Energy Sector Management Assistance Program

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(In-country Partner-MECS)

Finovista

ABOUT MODERN ENERGY FORUM 2024 INDIA

The Modern Energy Cooking Forum (MECF) was established in 2022 under the MECS Programme in India through their In-Country partner- Finovista, with the objective to intensify the cooperation among the stakeholders from both the public and private sectors in the area of modern energy for clean cooking. The aim is to create a platform to promote dialogue and share ideas among stakeholders and to attract more investment in renewable energy sources, and its usage as cooking fuel. The Forum has been supported by the Principal Scientific Adviser (PSA) to the Govt of India, the Bureau of Energy Efficiency (BEE), the Power Foundation of India (PFI), and Energy Efficiency Services Limited (EESL) in previous editions. The MECF 2024 aims to further consolidate and scale up the activities in India through partnerships, networking and collaboration in the clean cooking domain with a focus on developing an ecosystem for eCooking in India. The third Modern Energy Cooking Forum 2024 was organized by the MECS Programme through its In-country partner Finovista on September 27, 2024, in New Delhi and was supported by the Office of the Principal Scientific Adviser (PSA) to the Govt of India, Manthan, International Solar Alliance (ISA), Global Electric Cooking Coalition (GeCCo) and Energy Efficiency Services Limited (EESL). Additionally, the Carbon Markets Association of India (CMAI) and the Consumer Electronics and Appliances Manufacturers Association (CEAMA) were also associated with the MECF 2024 as the Outreach Partners.

OVERVIEW OF THE MECS PROGRAMME IN INDIA

MECS Programme is a UK Government (FCDO) funded global research programme led by Loughborough University, working in close partnership with NGOs, governments, private sector, academia and research institutes in 16 countries to accelerate a transition from biomass to genuinely ‘clean’ cooking.. By integrating modern energy cooking services into the planning for electricity access, quality, reliability, and sustainability, MECS hopes to leverage investment in renewable energies (both grid and off-grid) to address the clean cooking challenge. Globally, MECS is now well established as a prominent programme in the clean cooking domain and has also become a strong and active player in India. The programme is also working with partners in India to enable it to develop as a Global Hub for manufacturing clean cooking devices for domestic and international markets. These aims align with the Atmanirbhar Bharat and Make in India mission of the Government of India while focusing on the shift to modern energy cooking within India which is also one of the objectives of the GoElectric and LiFE Mission (Lifestyle for Environment) campaign launched by the Government of India.

Highlights of the Modern Energy Cooking Services (MECS): In the following session on “Highlights of the Modern Energy Cooking Services (MECS) Programme in India”, the broadfactors impacting adoption of eCooking devices are availability, affordability, and operating costs as they impact the overall affordability of eCooking. National and state-level policies have significant potential to impact these areas, helping shape the supply chain and address clean energy needs. Research and analysis are essential to inform policy-makers and enhance the effectiveness of these policies. A detailed account of MECS’s work in India since 2019 presented during the session highlighted the evidence-building phase, gathering data on the feasibility of eCooking and identifying supportive stakeholders. Over time, the existing technology landscape, the efficiency benefits of eCooking, and the capacity-building needs of manufacturers including technology support were also undertaken.Through the Women in Modern Energy Cooking (WMEC) initiative, MECS hopes to with women poised to contribute to the clean cooking sector. MECS has also curated a policy document on eCooking for manufacturers, providing information on government schemes, policies, and grants relevant to the sector.

EXECUTIVE SUMMARY

The **3rd Annual Modern Energy Cooking Forum (MECF 2024)**, held on September 27, 2024, in New Delhi, aimed to strengthen India's clean cooking ecosystem by fostering dialogue, showcasing technological advancements, and aligning stakeholders toward shared goals in clean cooking. Organised by the **MECS Programme** through its India country partner **Finovista** and was supported by the Office of the Principal Scientific Adviser (PSA) to the Govt of India, Manthan, International Solar Alliance (ISA), and Energy Efficiency Services Limited (EESL). Additionally, the Carbon Markets Association of India (CMAI) and the Consumer Electronics and Appliances Manufacturers Association (CEAMA) were associated with the MECF 2024 as the Outreach Partners. It underscored India's readiness for eCooking adoption, leveraging its growing renewable energy capacity and improving electricity access.

Key Highlights

Inaugural Session:
Senior officials and experts emphasized the need to transition to modern energy cooking to address health, environmental, and economic challenges posed by traditional biomass-based methods. The proposal for India to commit to achieving 25% eCooking adoption by 2030 aligns with broader Net Zero and sustainability goals. Initiatives like solar-powered induction stoves, rural eCooking solutions, and behavior-focused campaigns were discussed as pathways to overcoming adoption barriers.

Technology Showcase:
Leading manufacturers and organizations showcased innovations, including induction cooktops, solar cooking systems, and other energy-efficient appliances. These demonstrations illustrated the potential for scalable, cost-effective, and user-friendly solutions tailored to India's diverse cooking practices. The following companies exhibited: Mish Horeca Services, Indian Oil Corporation Limited, Rudra Solar Energy, Simi Stove Private Limited, Smith Innovative Appliances Pvt Ltd, EPACK Durable Limited, Energy Efficiency Services Limited (EESL), KOKO Networks, Soft Tech Renewable Energies (STRE) Induciia, TTK Prestige, Panacean, GHG Reduction Technologies Pvt. Ltd., V Guard, Bajaj, Systema Bio exhibited their modern cooking products.

Special Session on Research in eCooking:
A special session highlighted the latest research findings important for shaping evidence-based policies. Studies from institutions including NIAS, IIT Bombay, and IISD identified the socio-economic benefits of eCooking, behavioral drivers, and adoption barriers.

Insights from Panel Discussion

Carbon Financing and Policy Support:
Experts explored carbon credits as a tool to bridge affordability gaps in eCooking adoption, as India embraces increasing sources of renewable energy. They highlighted opportunities for public-private partnerships under Article 6.4, emphasizing mechanisms like benefit-sharing and targeted subsidies to support community-level initiatives.

State-level Implementation:
A collaborative approach involving the Bureau of Energy Efficiency (BEE) and State Designated Agencies (SDAs) and others was proposed to promote eCooking. Participants stressed the need for region-specific strategies, robust awareness campaigns, and targeted financing to address diverse challenges across India's states.

Supply Chain Development:
Addressing supply chain inefficiencies is critical for sustainable adoption. Recommendations included standardization of devices to support mass adoption, fostering after-sales services, and developing localized manufacturing and distribution networks.

Role of Women:
Women's participation emerged as vital for the success of clean cooking initiatives. The session recommended integrating women's traditional knowledge and creating entrepreneurial opportunities for women in the clean cooking value chain through work with self-help groups and capacity-building programs.

Role of DISCOMs:
Discussions focused on the ongoing work towards 24/7 reliable electricity across the country, addressing infrastructure gaps, and educating consumers on the benefits of eCooking. Policy interventions like time of day or eCooking tariffs were proposed to drive adoption.

Key Outcomes and Recommendations

Holistic Policy Support:
A coordinated national roadmap, encompassing carbon financing, awareness campaigns, and state-level capacity-building, is essential.

Affordability and Access:
Subsidies, low-interest consumer loans, and supply chain enhancements are needed to reduce CAPEX and OPEX barriers.

Gender Inclusion:
Empowering women through targeted programs and entrepreneurial opportunities can amplify adoption.

Infrastructure and Reliability:
Investments in grid strengthening and off-grid solutions are critical for reaching rural households.

The MECF 2024 reinforced the potential of electric cooking as a sustainable, scalable solution for clean cooking in India. By integrating technology, policy, and community-driven approaches, the forum set a pathway to achieving clean energy goals while addressing environmental, social, and economic challenges.

AGENDA OF THE FORUM

Registration with Networking Tea — 09:30 – 10:00

Inaugural Session — 10:00 – 10:55

Welcome and Opening Remarks

- **Prof Matthew Leach**, Professor of Energy and Environmental Systems, MECS programme Lead for Clean Energy, Finance and Data Analysis

Special Remarks

- **Ms Archana Chauhan**, Head of Energy Sector Reforms, British High Commission, New Delhi, India
- **Mr. Abhishek Gupta,** Head of International, Strategy, Appliances, Rooftop Solar and PE & AEnergy Efficiency Services Limited
- **Mr Vimal Kumar,** MECS India Lead & Cofounder, Finovista

Key Note Address

- **Dr Ajay Mathur,** Director General, International Solar Alliance (ISA)

Special Address and Closing Remarks

- **Mr Milind Deore,** Secretary, Bureau of Energy Efficiency (BEE)

Clean Cooking- Technology Walkthrough & Tea Break — 1055 – 1125

Highlights of the Modern Energy Cooking Services (MECS) Programme in India — 1125– 1145

- **Dr Nick Rousseau,** International Liaison Manager, Modern Energy Cooking Services (MECS) Programme
- **Ms Sheetal Rastogi,** Cofounder, Lead - Strategy & Outreach, Finovista

Panel Discussion: Roadmap for a Successful Carbon Project in India — 1145 – 1230

- **Session Chair: Dr Lokesh Chandra Dube,** Senior Manager (Standard Development and Innovation), Gold Standard
- **Prof Matthew Leach,** Professor of Energy and Environmental Systems, MECS programme Lead for Clean Energy, Finance and Data Analysis
- **Mr Manish Dabkara,** CMD & CEO, EKI Energy Services Ltd (EKI) and President, CMAI
- **Mr Sriskandh Subramanian,** Technical Director of Climate and Sustainability, Micro Energy Credits
- **Ms Snigdha Verma,** Head – Carbon Credits, Convergence Energy Services Limited (CESL)

Panel Discussion: Enabling eCooking through States — 1230 – 1315

- **Session Chair: Dr Debajit Palit, Professor of Energy,** NTPC School of Business
- **Mr Abhishek Sharma**, Director, Bureau of Energy Efficiency (BEE)
- **Dr Parveen Dhamija,** Former Advisor Skill Council of Green Job MSDE GOI Advisor & Scientist 'G' MNRE GOI Executive Officer & Head EEREM Centre Govt. of NCT Delhi
- **Mr Nitin Bhatt,** Deputy General Manager (Sales & Public Relations), Energy Efficiency Services Ltd (EESL)
- **Mr Manoj Mahata,** Energy Advisor, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (GIZ India)

Lunch — 1315 – 1415

Panel Discussion: Women in Modern Energy Cooking (WMEC) — 1415 – 1500

- **Session Chair: Ms Sheetal Rastogi,** Cofounder, Lead - Strategy & Outreach, Finovista
- **Mr Animesh Mishra,** Chief General Manager / Head (Sales & CCPR), Energy Efficiency Services Ltd (EESL)
- **Mr Soumanil Mukherjee,** Consultant, Office of Principal Scientific Advisor to the Govt of India
- **Ms Akanksha Sharma,** Head of ClimateTech and Digital Utilities, GSMA
- **Ms Swetha Ravi Kumar,** Head of FSR Global, Florence School of Regulation
- **Chef Divya Bose,** Indian Federation of Culinary Associations (IFCA)
- **Renu Sharma,** Dharma Life,Lead Deputy Manager- Project and Services

Panel Discussion: Access Vs Adoption - Role of Supply Chain — 1500 – 1545

- **Session Chair: Dr Nick Rousseau,** International Liaison Manager, MECS Programme
- **Mr Ravi Shankar Chaudhary,** Secretary General, Consumer Electronics and Appliances Manufacturers Association (CEAMA)
- **Mr Mazher Alam,** GM (Mktg. Strategy) - Indian Oil Corporation Ltd (IOCL)
- **Ms Anubha Shukla,** Chief Commercial Officer, Husk Power Systems
- **Ms Sumedha Awasthy,** Associate, CLASP

Networking Tea — 1545 – 1600

Panel Discussion: Role of DISCOMs in large scale scaling up of eCooking — 1600 – 1645

- **Session Chair: Ms Reena Suri,** Executive Director, India Smart Grid Forum
- **Prof Jyoti Parikh,** Executive Director, Integrated Research and Action for Development (IRADe)
- **Mr Gopal Nariya,** Vice President, BSES Rajdhani Power Ltd
- **Mr Rajan Varshney,** DGM (EMG/BE), NTPC, Farakka
- **Prof Rudrodip Majumdar,** Assistant Professor, National Institute of Advanced Studies

Sum up and Next steps and the way forward — 1645 – 1700

Exhibitions and Demonstrations — 0930 – 1700

AGENDA OF THE SPECIAL SESSION

Session On Research in Cooking with Modern Fuels

1415 - 1430

Opening Remarks

- **Dr Debajit Palit,** Professor of Energy, NTPC School of Business
- **Dr Nick Rousseau,** International Liaison Manager, MECS Programme

Findings- Evidence-based Approach to Assess the Energy Transition in the Residential Cooking Sector in India

1430 – 1515

- **Prof Rudrodip Majumdar,** Assistant Professor, National Institute of Advanced Studies

eCooking - EnDev Bangladesh

1515 – 1600

- **Ms Puja Saha,** Junior Energy Advisor, GIZ Bangladesh

Networking Tea

1600 – 1615

Enabling Electric Cooking Ecosystem in Rural India- Case Study of Bihar

1615 – 1650

- **Prof Jayendran Venkateswaran,** Professor, IIT Bombay

Challenges and opportunities of promoting electric cooking in India

1650 – 1730

- **Mr Sunil Mani, Advisor,** International Institute for Sustainable Development

SPEAKER BYTES

DR AJAY MATHUR

Director General
International Solar Alliance

""Test at Scale" to provide the solutions for challenges that slow down the transition, he appealed to the researchers. Tailor-made solutions are needed for different areas considering their priorities."

MR ABHISHEK GUPTA

Head of International, Strategy, Appliances, Rooftop Solar & PE & AEnergy Efficiency Services Limited

"Compatibility of utensils with eCooking devices and storage cost of electricity are the two major areas to be worked on for the transition to eCooking."

MS ARCHANA CHAUHAN

Head-Energy Sector Reform
British High Commission, New Delhi

"International cooperation is the key for the sectors of global concern like emission reduction and climate change. Collaboration among the different stockholders is crucial to achieve the Net Zero Goals."

MR VIMAL KUMAR

MECS India Lead & Cofounder
Finovista

"With the Grid getting green and 46% of electricity is coming from renewable sources. eCooking is becoming the greenest way of cooking practice."

MR MILIND DEORE

Secretary
Bureau of Energy Efficiency

"Transition is happening in every sector of the economy such that it looks more like an energy revolution rather than an energy transition."

MR LOKESH CHANDRA DUBE

Senior Manager
Standard Development and Innovation, Gold Standard

"Mechanisms of VCM can be utilized for compliance purposes as well till such time that compliance markets in countries have not been developed. They can adapt the guidelines, tools, methodology, and standards of VCM and move forward."

SPEAKER BYTES

PROF MATTHEW LEACH

Professor Of Energy and Environmental Systems,
MECS Programme Lead for Clean Energy, Finance and Data Analysis

"Clean Cooking projects should employ the right methodologies and avoid over-crediting to ensure the integrity of the credit generated."

MR MANISH DABKARA

Chairman & MD,
EKI Energy Services Ltd

"Awareness, working with experienced consultants, adaptation of established methodologies, Comprehensive baseline assessment, implementation and monitoring of plan, and engaging reputed third-party company for verification are the Important ingredients of a successful carbon credit project."

MR SRISKANDH SUBRAMANIAN

Chief Sustainability Officer
Micro Energy Credits

"VCM is at fatigue, Art 6.2 based funds can come from sovereign and other multilateral, this will give a good boost to clean cooking in India."

MS SNIGHDA VERMA

Head, Carbon Credits
Convergence Energy Services Ltd.

"The Carbon market is new for everyone, PSUs should learn from each other's experience about the monetization of carbon projects."

DR NICK ROUSSEAU

International Liaison Manager
MECS Programme

"In a Country like India, which has a wide range of diversity and population that is dispersed among remote locations, tribal areas, and difficult terrains, the Supply chain of appliances used for as basic needs as cooking becomes critical."

MR MD MAZHER ALAM

GM (Mktg. Strategy)
Indian Oil Corporation Ltd

"With the infusion of Finances through carbon credit, clean cooking projects now have the potential to become self-sustaining additional CSR projects."

SPEAKER BYTES

MR RAVI SHANKAR CHAUDHARY

Secretary General
Consumer Electronics and Appliances Manufacturers Association

"Supply chain has to adapt as per the demand. Manufacturers must observe the priority of the consumer and their needs."

MS ANUBHA SHUKLA

Chief Commercial Officer
Husk Power Systems

"Transition to eCooking depends on three things; Product, Distribution, and Financing. Distribution Needs to figure out who we are targeting."

MS SUMEDHA AWASTHY

Associate, CLASP

"Labeling and standardization create consumer awareness regarding products."

PROF JYOTI PARIKH

Executive Director, Integrated Research and Action for Development

"Over a period of time, several transitions in the cooking sector have taken place. Now, it is time to transition toward electric cooking".

MR RAJAN VARSHNEY

Deputy General Manager
NTPC

"Peer-to-peer trading could emerge as a good solution for challenges regarding grid overload."

PROF RUDRODIP MAJUMDAR

Assistant Professor, National Institute of Advanced Studies

"50% of households reported in the study of transformer busting before a power cut, which indicates overloading and inadequate infrastructure required to support the exciting load"

SPEAKER BYTES

MR GOPAL NARIYA

Vice-President, BSES Rajdhani Power Limited

"The huge gap between peak demand and the average demand is a matter of concern for DISCOMs. The average load factor will get improve with the addition of demand from the electric cooking sector"

DR PARVEEN DHAMIJA

Former Adviser - Skill Council for Green Jobs
Former Adviser / Scientist G, Ministry of New & Renewable Energy

"Despite progress, rural populations still rely on biomass heavily, clean cooking solutions must be adopted as per the national clean cooking roadmap's multifuel approach."

MR NITIN BHATT

Deputy General Manager, Energy Efficiency Services Ltd

"EESL has reached out to all 545 Lok Sabha MPs, receiving positive responses from around 100, with some MPs committing to use their MPLAD funds to support the clean cooking initiative in their constituencies."

MR MANOJ MAHATA

Energy Advisor, GIZ India
Implementation of Energy Plan, GIZ India

"State must commit to the clean cooking program and endorse campaigns similar to LPG promotion for eCooking in their states."

MR ABHISHEK SHARMA

Director, Bureau of Energy Efficiency (BEE)

"Ongoing workshops are effectively raising awareness about the benefits of eCooking, and pilot programs in various states are showing promising responses."

PROF DEBAJIT PALIT

Professor of Energy, NTPC School of Business

"The Role of the state in the adoption of eCooking is crucial, states in coordination with the center must ensure the development of infrastructure is feasible for transition."

SPEAKER BYTES

MS SHEETAL RASTOGI

Co-founder, Lead - Strategy & Outreach, Finovista, MECS Programme in India

"Women are often seen as the primary users of eCooking devices, their knowledge of cooking practices is recognized, yet there is insufficient integration of their knowledge in product design or the value chain of these devices."

MR SOUMNIL MUKHERJEE

Consultant, Office of Principal Scientific Advisor to the Govt of India

"Women's participation in modern energy cooking initiatives is critically important, there is an untapped potential in rural livelihood programs that could incorporate women-led SHGs for the adoption of eCooking."

MR ANIMESH MISHRA

Chief General Manager / Head (Sales & CCPR), Energy Efficiency Services Ltd (EESL)

"ASHA and Anganwadi workers are effective communicators and can advocate for products that enhance adoption rates. 80% of those involved in manufacturing EESL's induction cookstoves are women."

MS AKANSHA SHARMA

Head of ClimateTech and Digital Utilities, GSMA

"Women have active interaction with digital technology even in rural areas, with a little effort they would adapt to the eCooking practices too."

MS SWETHA RAVI KUMAR

Head of FSR Global, Florence School of Regulation

"Accessible technologies help build credit history and enable financing for small businesses in Africa in the clean cooking sector. Learning and replicating those models in India will encourage women-led ventures in the eCooking sector."

CHEF DIVYA BOSE

Senior Lecturer, Institute of Hotel Management, PUSA, New Delhi

"Cooking is an inherent skill among women, but cultural beliefs and local cooking patterns complicate the transition to clean energy. Social media campaigns could play a vital role in increasing acceptance and encouraging people to embrace new cooking methods."

SPEAKER BYTES

MS RENU SHARMA

Dharma Life
Lead Deputy Manager-
Project and Services

"The participatory Approach is important, every community has unique needs and ongoing feedback is essential for product modification. "

MS REENA SURI

Executive Director
India Smart Grid Forum

"Strengthening the grid is less expensive than the laying City gas distribution network. City gas distribution costs 25000 INR per customer while strengthening the grid will cost only 8-9 thousand INR per customer, which will enable 2-3 kW power supply to each household"

MODERN ENERGY COOKING FORUM (MECF)

Driving Collaboration for Clean Cooking Solutions

Established in 2022 under the MECS Programme in India, the **Modern Energy Cooking Forum (MECF)** serves as a dynamic platform to foster public-private collaboration in advancing clean cooking solutions. Spearheaded by **Finovista**, the Forum facilitates stakeholder dialogue, promotes innovation, and attracts investments in renewable energy as a sustainable cooking fuel. Over the years, MECF has garnered support from key organizations, including the **Principal Scientific Adviser (PSA) to the Government of India, Bureau of Energy Efficiency (BEE), Power Foundation of India (PFI), and Energy Efficiency Services Limited (EESL)**. The 2024 edition, held on September 27 in New Delhi, sought to scale efforts through robust partnerships and networking, emphasizing the development of an eCooking ecosystem in India.

This year's forum, co-organized with **Principal Scientific Adviser (PSA) to the Government of India, International Solar Alliance (ISA)**, and **Global Electric Cooking Coalition (GeCCo)**, also featured **Carbon Markets Association of India (CMAI)** and **Consumer Electronics and Appliances Manufacturers Association (CEAMA)** as outreach partners. Together, these collaborations reinforced MECF's commitment to driving India's clean energy transition with a focus on cooking.

INAUGURAL SESSION

The Inaugural Session was attended by senior functionaries from government and other organisations engaged in development and efficient use of clean and sustainable energy who highlighted the country's readiness for this transition, noting its rapidly growing renewable energy capacity and improvements in electricity access for households. They spoke about efforts undertaken to support the adoption of electric cooking in both urban and rural settings, with special attention to creating cost-effective and user-friendly solutions based on clean energy suited to Indian needs. In rural areas, the development of off-grid solar power system and solar-powered cookstove systems addresses challenges such as limited grid connectivity and affordability, while urban programs focus on grid-based eCooking solutions integrated with renewable energy. Key initiatives include pilot projects for solar-powered cooking devices, large-scale procurement for widespread distribution, and the development of labelling programs to boost consumer confidence in these technologies. Public campaigns have been instrumental in raising awareness about the benefits of electric cooking, encouraging households to consider it as a viable and cleaner alternative. The proposed aim to transition 25% of Indian households to electric cooking by 2030, which aligns with the broader goal of reducing emissions and promoting healthier, could be possibility if sincere efforts are made.

Prof. Matthew Leach, Emeritus Professor, Modern Energy Cooking Services (MECS) Programme, UK

In his inaugural address emphasized the far-reaching adverse impacts and challenges caused by traditional biomass-based cooking and other polluting fuels on both individuals and the environment. He highlighted the urgent need to for households and institutions to adopt modern energy cooking practices. He further explained that the Modern Energy Cooking Services (MECS) program, funded by the UK Government, is centred on research and innovation. In collaboration with the World Bank's Energy Sector Management Assistance Program (ESMAP), MECS has established partnerships with multiple countries, including India, across several thematic workstreams such as carbon management, technological development, and innovation. The program aims to support the transition to modern cooking fuels, including electric, liquid, and gaseous options like bio-ethanol and biogas

While there are other clean fuels option available, electricity will have a central role in this transition by providing user convenience and, in the long term, by aligning with global Net Zero objectives. A key focus of MECS is to integrate eCooking into electricity access initiatives, whether through on-grid, off-grid, or mini-grid systems. The program aspires to deliver market-ready innovations, technologies, and business models that offer households and institutions a broader range of clean cooking choices. Shifting from improving current fuel sources to advancing modern energy cooking practices, MECS launched the Global Electric Cooking Coalition (GeCCo) at COP28. This coalition brings together like-minded organizations to promote knowledge-sharing, leadership, and funding for eCooking, providing support for readiness assessments, market activation, and policy advocacy within countries to establish eCooking as a central part of clean cooking strategies. The MECS team continue to explore how GeCCo could operate in India

Elaborating on MECS's strategy for promotion of eCooking, the MECS program has deployed on-grid and off-grid projects across 19 countries through its Challenge Fund, which enhances supply chain delivery and mini-grid business models. It also supports national strategies for clean and electric cooking, with Kenya's strategy already delivered. Additionally, MECS works to stimulate electricity demand by collaborating with utility providers. In the standards domain, MECS works with CLASP to contribute to the development of appliance standards. The program has also introduced a new carbon credit methodology, now adopted by entities like Gold Standard and Verra, to enable clean cooking projects to access carbon credits.

Vimal Kumar, Co-Founder, Finovista

Opened by asserting that traditional flame-based cooking is increasingly being replaced by electron-based cooking and emphasized India's preparedness for a transition to modern energy cooking practices. He noted that eCooking adoption relies on devices being both energy-efficient and user-friendly

Highlighting India's status as a power surplus nation, with an installed capacity of around 450 GW and a commitment to expand this to 800 GW by 2030, he mentioned that the renewable energy now constitutes 45% of India's grid mix, with a target of reaching 500 GW by 2030, creating an ideal environment for the shift to eCooking. While per capita electricity consumption in Europe averages 12,000 kWh, India's current level is only 1,200 kWh, which he pointed out must rise to achieve India's aspiration of "Vikshit Bharat." He underlined that as the grid becomes greener, eCooking will be a crucial component of future cooking practices, offering extensive potential for innovation and the development of user-centric technology. To drive adoption, Kumar emphasized the need to focus on "BET" – Behaviour, Economics, and Technology

Abhishek Gupta, International Head of Solar Strategy, Appliance, and Project Evaluation & Assessment, EESL

Shared that EESL has been actively working in the electric cooking sector for the past 18 months. He emphasized that both capital and operational costs are crucial factors in the adoption of eCooking, prompting EESL to develop an off-grid solution featuring a solar-powered induction cookstove. This project is currently piloted in Uttar Pradesh and Jharkhand, though the major challenge remains the cost of storing electricity . To address this, EESL is engaging with solution providers specializing in battery technologies and discussing partnerships with IOCL, particularly around their SuryaNutan project.

He noted that off-grid eCooking solutions have significant potential for areas where electricity access is limited. He also pointed to the design challenges posed by the shape of traditional Indian utensils, which impacts their stability on induction cooktops, highlighting that a seamless, risk-free solution is still required. In line with its pursuit of unified off-grid eCooking solutions, EESL has scaled up procurement of modules, inverters, and induction cooktops to support a comprehensive solution under the PM Surya Ghar Yojana

In collaboration with the MECS program, EESL is also exploring solar cookers, which offer notable efficiency gains over traditional options, though adoption remains challenging. Cost reduction remains a priority, and EESL is in discussions with various solution providers to this end. He underscored the significant impact of clean cooking on a nation's Sustainable Development Goals (SDGs), benefiting health, air quality, water, and sanitation, and stressed the need for targeted institutional funding interventions to drive these efforts.

Archana Chauhan, Energy Head, The British High Commission

Underscored that clean cooking is not simply a matter of convenience but a necessity for health, environmental sustainability, and economic empowerment. Each year, millions suffer from the effects of harmful air pollution, a pressing issue in India. Women and girls bear much of this burden, impacting their educational and economic opportunities.

The Modern Energy Cooking Services (MECS) program is pivotal in advancing clean cooking technologies, offering innovative and sustainable solutions to tackle both health and environmental challenges, ultimately supporting Net Zero goals. Through the India-UK bilateral Aspire program, the British High Commission collaborates closely with India's Ministry of Power and the Ministry of New and Renewable Energy on clean energy initiatives. These efforts include supporting EESL in developing solar-based induction cookstove solutions and implementing cost-effective, scalable solutions. Chauhan emphasized the need for initial incentives to enhance cost competitiveness, with the High Commission working alongside EESL and the Kerala government to distribute and assess 100 cookstoves and conduct cost competitiveness analysis.

Additionally, the British High Commission has engaged in developing methodologies to estimate carbon credits from clean cooking initiatives. Capacity building and training remain central to these efforts, aiming to make clean cooking a reality worldwide.

Dr. Ajay Mathur, Director General of the International Solar Alliance

Spoke about challenges associated with the adoption of the LPG program, noting that 10-15% of people in each district in India lack the economic means to pay for either electricity or gas. This situation calls for solutions with zero or near-zero operational costs, as many of these individuals rely on biomass, which is available at no cost. Without a comparable alternative, they are unlikely to transition to cleaner fuels. To address this, the ISA organized a competition for startups in Africa last year and in the Asia-Pacific region this year, focusing on solar cooking innovations. This initiative yielded a product—a single stove system with battery storage and a solar panel—that allows users to charge the battery either through solar energy or the grid

He shared insights from a prior labeling program, which revealed the importance of offering a range of devices to meet diverse needs. He emphasized the need for inclusive solutions, especially for users with limited means who own only a single pot and cannot afford new devices. Addressing broader needs, he highlighted solutions for institutional cooking and rural households, emphasizing the importance of need-based cooking solutions. He observed that convenience often dictates choice, with rural users favoring LPG for its ease of access and reliability, despite awareness of its drawbacks. Given the inconsistency of electricity supply and the lack of supportive infrastructure in rural areas, a reliable, convenient cooking solution remains paramount. Standalone systems with a solar panel, battery storage, and resistance-based cooking devices are necessary to meet rural needs.

He urged researchers and manufacturers to "Test at Scale," assessing devices on effectiveness, operating and capital cost analysis, product lifespan, and user acceptance to identify barriers to widespread adoption. He called on public policy institutions to design rural programs with minimal operating costs and capital cost subsidies of 80-90%. He also endorsed the Bureau of Energy Efficiency's labeling initiative for the clean cooking sector, which provides a cost-efficiency metric.

Milind Deore, Secretary,Bureau of Energy Efficiency (BEE)

Highlighted the evolving role of BEE in supporting India's energy transition. He stated that the recent Energy Conservation (Amendment) Act, 2022 expanded BEE's mandate from energy efficiency to include a focus on energy transition across sectors. He emphasized the urgency of adopting cleaner energy solutions across the economy. One critical area of focus is cooking, where 38% of India's population still relies on biomass, which poses severe health risks, particularly for women and children. He shared a concerning statistic: biomass-based cooking results in the deaths of approximately 100,000 children in India each year.

Electric cooking (eCooking) currently has only a 5% penetration rate in India, with 10.5% in urban areas and a mere 2.7% in rural regions, highlighting the need for solutions tailored to the specific needs of Indian households. Electricity access has greatly improved, with over 28 million households connected to the grid under the Saubhagya scheme in just 18 months, bringing the country's installed capacity to 442 GW, of which 44% is from renewable sources. Power availability has also seen a marked increase, with urban areas now averaging 23.5 hours of electricity daily and rural areas 23 hours

To raise awareness of eCooking's benefits, BEE under the Ministry of Power launched the "GoElectric" campaign . This campaign, run through State Designated Agencies, has successfully conveyed the advantages of eCooking to many consumers. However, Deore noted the program faces scaling challenges similar to those encountered by other national initiatives, such as the Ujjwala and street lighting programs.

He also mentioned about an Energy Transition Advisory Committee (ETAC) set up by the Ministry of Petroleum and Natural Gas , which recently published a report on India's path to net-zero emissions by 2070. This report calls for 50% household adoption of eCooking by 2070, with an interim target of 25% by 2030. Deore stressed that electric cooking is a true clean energy alternative unlike LPG, though it faces challenges such as high operational and capital costs. Government support, in the form of capital cost incentives and a rationalized electricity tariff for households, could drive higher adoption rates, while programs like the Surya Ghar Yojana are positioned to further support eCooking on a large scale.

BEE has also introduced a Star Labelling program that ranks electric cooking devices by energy efficiency, encouraging manufacturers to develop energy-efficient appliances. This labelling initiative aims to build consumer trust and accelerate the adoption of reliable and efficient eCooking devices across the country.

Highlights of the MECS Programme in India

Nick Rousseau, International Liaison Manager, MECS Programme

- Nick Rousseau, International Liaison Manager at Modern Energy Cooking Services (MECS), outlined a three-stage journey toward adopting electric cooking (eCooking). The first stage is acquiring an eCooking device, followed by initial usage for simple tasks like cooking rice, making tea or boiling water, and culminating in regular, full-fledged cooking.
- Device availability , a user-friendly interface , and lower operating costs are critical factors influencing adoption of eCooking.
- Transitioning to eCooking to the point where it is adopted for most meal preparations involves a learning curve, as users adapt to the nuances of electric devices.
- An advantage of eCooking is that kitchens using electric devices are often cooler than those relying on traditional flame-based stoves, which could aid in the transition and encourage others in the family to get involved.
- In rural areas, access to inexpensive or free biomass presents a deterrent to the widespread adoption of eCooking.
- Key factors influencing this transition include the appliance supply chain, public awareness, energy and fuel availability, and the involvement of women in the decision-making process.
- National and state-level policies have significant potential to impact these areas, helping shape the supply chain and address energy and fuel needs. Research and analysis are essential for informed policy making.
- Rousseau further highlighted that several enablers can accelerate the shift toward eCooking: consistent electricity supply, grid capacity to handle additional load, incorporation of renewable energy, carbon financing, and the comparative costs of fuel– all of which create a foundation for increasing eCooking adoption.

Sheetal Rastogi, Co-Founder, Finovista

- MECS (Modern Energy Cooking Services) initiated its work in India in 2019 with an evidence-building phase, officially launching the program in March 2020. This began with gathering data on the feasibility of eCooking and identifying supportive stakeholders.
- Over time, MECS expanded its efforts to understand the existing technology landscape, the efficiency benefits of eCooking, and the capacity-building needs of manufacturers.
- MECS's work in India is centered around four key pillars: generating evidence to inform policy, promoting and raising awareness of eCooking, enhancing the supply chain and technology support for local manufacturers, and delivering training and capacity-building programs.
- The first evidence-building initiative was the development of the India eCookBook, followed by the creation of awareness platforms such as a talk series and a monthly webinar focused on various aspects of eCooking, currently in its third edition.
- MECS has launched several initiatives to strengthen Indian manufacturers, starting with an Entrepreneurship Development Program (EDP) that trained 16 manufacturers and provided one-on-one mentoring.
- MECS has also organized investor pitching sessions to connect manufacturers with the financial ecosystem. In collaboration with EESL under the National Energy Conservation Program (NECP),
- MECS has engaged with manufacturers to leverage EESL's bulk procurement demands. One partner company from this collaboration won the EDP prize for their energy-efficient EPC.
- MECS has worked closely with the Bureau of Energy Efficiency (BEE) on eCooking initiativesand in December 2023, hosted an All-India State Designated Agency (SDA) meet, organizing workshops and capacity-building sessions that inspired several state-level activities.
- Funded by MECS, IIT Bombay developed a rural supply chain model, and with the Kerala SDA, MECS trained Anganwadi workers in eCooking practices–a similar initiative was also undertaken in Delhi.
- MECS has conducted additional training for Anganwadi workers and street food vendors, supporting two national street food festivals in Delhi, where vendors prepared meals on eCooking devices in a live pilot, earning money as they demonstrated the technology's efficiency.
- A "train the trainer" program was recently completed for the Skill Council of India for Green Jobs, with participation from 20 organizations, covering assessment and training on electric cooking.
- MECS also concluded a supply chain needs assessment for manufacturers, where interviews with manufacturers and distributors highlighted challenges within the eCooking supply chain.
- Through the Women in Modern Energy Cooking (WMEC) initiative, MECS conducted interviews with women strategically poised to contribute to the clean cooking sector.
- MECS has also curated a policy document on eCooking for manufacturers, providing information on government schemes, policies, and grants relevant to the sector.

Panel Discussion : Roadmap for a Successful Carbon Project in India

In the first panel discussion on “Preparing the roadmap for a successful carbon Project in India” , experts recognized India’s position as the fourth largest greenhouse gas emitter and the country’s commitment to reducing its carbon footprint, highlighting new opportunities for carbon credits. The panel noted that the slow adoption of eCooking solutions is primarily hindered by affordability challenges in both CAPEX and OPEX and emphasized the role carbon financing could play in accelerating clean eCooking adoption. Experts addressed the lack of awareness among businesses regarding carbon credits and their application while acknowledging the inclusion of renewable energy-based cooking in Article 6.4 as a promising development. They discussed the potential unlocked by public-private partnerships under Article 6.4, and the potential value of mechanisms that share some of the benefits with end users, particularly in community-based clean cooking initiatives. The panel further explored the feasibility of eCooking carbon project development and the essential role of technology and innovation in carbon market development.

- Modern cooking practices are critical for limiting GHG emissions and other toxic pollutions from residential, commercial, and institutional kitchens in the light of India's increasing demand for energy for its developmental needs.
- The advancements made within the voluntary carbon market (VCM) can be leveraged for compliance purposes until such time as formal compliance markets are established to enable Stakeholders adapt existing guidelines, tools, methodologies, and standards from the VCM to facilitate progress in their efforts toward emissions reduction
- The substantial surge in the voluntary carbon market in 2021 led to instances of over-crediting due to factors such as the fraction of non-renewable biomass (fNRB), overly optimistic baselines, and the stacking of various fuels and technologies within households raising issue of credit integrity.
- Measures such as a comprehensive baseline assessment, effectively implementing and monitoring the project plan, and engaging reputable third-party verification companies are crucial for avoiding issues related to over-crediting and maintaining project integrity.
- A new methodology has been developed by MECS and is now recognised by Gold Standard - which is applicable across all types of renewable energy.
- This methodology is part of a broader initiative aimed at implementing a comprehensive digital monitoring, reporting, and verification process (dMRV), which is being adopted by individual developers and major institutions such as the World Bank and Gold Standard.
- India’s Micro Energy Credit became the first company to receive carbon credits using this methodology, which is now being adopted by numerous firms in Asia and Africa.
- The Integrity Council for the Voluntary Carbon Market has begun labelling standards and methodologies as Climate Community and Biodiversity (CCB) certified to enable buyers to distinguish between certified and non-certified credits
- There is a need of raising awareness about carbon credit initiatives, collaborating with experienced consultants who have prior expertise in such projects, and adapting established methodologies.
- In India, the demand for VCM is increasing as corporations strive to enhance their Environmental, Social, and Governance (ESG) profiles.
- Although the global VCM market contracted from approximately $2.1 billion in 2021 to $0.5 billion, projections suggest that it could grow to between $10 billion and $250 billion by 2030-2050.
- The initial focus should be on decarbonizing operations as much as possible before resorting to offsets to achieve net-zero goals. Once it becomes increasingly challenging to abate emissions, organizations can then turn to nature- and technology-based removal solutions.
- The inclusion of renewable energy-based cooking systems in Articles 6.2 and 6.4 by the Government of India could provide a substantial boost to clean cooking initiatives in India.
- Since the carbon credit market is relatively new for all participants there is a need for mutual learning among stakeholders. Public sector undertakings (PSUs) should also share their experiences regarding project monetization, fostering a collaborative environment.

Panel Discussion : Enabling eCooking through States

The experts participating in the panel discussion on “Session on Enabling eCooking through States” discussed the potential for enabling eCooking across Indian states through the framework of the Energy Conservation (EC) Act 2001, which establishes a dual-level structure with the Bureau of Energy Efficiency (BEE) as the central nodal agency and State Designated Agencies (SDAs) at the state level. Given India’s diverse climate, economy, and literacy levels, panelists emphasized the need for region-specific clean cooking solutions. However, panellists highlighted the necessity for enhanced state-level policy support, targeted incentives to reduce CAPEX and OPEX costs, and consumer financing options. Experts recommended a blend of consumer awareness campaigns, capacity-building workshops, demonstration projects, and widespread information dissemination to accelerate eCooking adoption across diverse regions.

- Launch of the “GoElectric” campaign reflects the Government of India’s intent to promote electric cooking.
- State governments must play their crucial role in facilitating the adoption of electric cooking technologies through targeted programs.
- Electricity distribution companies (Discoms) have faced issues related to peak evening demand which need to be addressed.
- BEE is collaborating with 36 SDAs across all 28 states and 8 Union Territories, primarily involving renewable energy agencies, electrical inspectors, DISCOMs, and standalone SDAs.
- BEE is working to develop state energy efficiency plans aimed at identifying existing gaps and formulate future strategies for optimal resource utilization across various sectors, with a common objective of promoting electric cooking (eCooking).
- The approach to advancing eCooking is threefold, encompassing capacity building and awareness, deployment, and standards and labelling.
- The introduction of a BEE’s star rating system in 2023 aims to address quality variations within the market.
- The critical need to reduce air pollution, alleviate burdens on women, and enhance device efficiency through transition to eCooking align with the Sustainable Development Goals (SDGs).
- The national clean cooking roadmap should have a multifuel approach and also include education and entrepreneurship among women to enhance distribution and after-sales services to promote eCooking.
- Need for comprehensive awareness campaigns tailored to local contexts to effectively communicate the benefits of electric cooking
- Collaboration with state governments is essential for demand aggregation, which can help lower costs.
- EESL aims to distribute 500,000 induction cookstoves across India within the next 6 to 7 months, focusing on raising awareness.
- EESL is working on a plan to make clean cooking mandatory in all anganwadis nationwide.
- EESL is engaging large organizations, including public sector undertakings (PSUs) and the corporate sector, to adopt induction cookstoves in their canteens.
- A number of Hon’ble Members of Parliament (MPs) have pledged to use their MPLAD funds to support the clean cooking initiative in their constituencies.
- GIZ India is supporting six states over the past four years in developing comprehensive state energy plans with focus on energy efficiency, particularly in the cooking sector.
- Huge potential for collaborations exists with organizations such as GIZ, MECS and EESL, along with opportunities for carbon finance.
- Need for a coordinated effort among various departments and stakeholders, supported by other organisations to develop robust programs backed by political authority.

Panel Discussion: Women in Modern Energy Cooking (WMEC)

In the next panel discussion on “Session on Women in Modern Energy Cooking (WMEC)”, the experts explored the need to elevate women’s participation in leadership, and decision-making to develop relevant and efficient, clean cooking technologies in view of women’s role as both primary users and crucial stakeholders. Panelists discussed how leveraging women’s traditional knowledge of cooking could drive innovative, context-appropriate solutions. Barriers such as limited access to finance, skill development opportunities, and policy support were identified as significant challenges to women’s involvement in the sector. The session underscored that aligning clean cooking technologies with local cooking practices, through thoughtful strategies, could greatly enhance adoption, ultimately driving forward both the clean energy transition and socio-economic development goals.

- Clean cooking and eCooking technologies have a significant impact on the lives of women and children.Cooking and cooking technologies have a significant impact on the lives of women and children.
- Achieving gender equity throughout the eCooking value chain is important.
- Lack of awareness among rural women about clean cooking technologies and its advantages serves as a major barrier which limits their ability to engage in decision-making regarding purchasing these solutions.Self-help groups (SHGs) in India represent a robust model, and accordingly, capacity building and knowledge enhancement within these groups to increase women's involvement can facilitate technology adoption in the sector.

- Need for a multifaceted approach to Women's participation in Modern Energy Cooking (WMEC), including sharing case studies to foster competition and spur innovation. It will have a significant impact on rural communities
- Top-down models often fail to resonate at the local level; hence, a needs assessment approach is essential for effectively addressing existing gaps.
- Leveraging platforms like “Manthan” to support entrepreneurial ventures among women in rural areas could be useful in promoting eCooking.
- By partnering with local NGOs, self-help groups (SHGs), and ASHA and Anganwadi workers, eCooking technology can become both cost-effective and accessible.
- Women, especially ASHA and Anganwadi workers, can serve as effective communicators and advocates for clean cooking technologies/products to enhance its adoption rates.
- 80% of those involved in the manufacturing of EESL's induction cookstoves are women, underscoring the industry's commitment to eCooking.
- Need to address the perception that LPG is a more efficient and economical choice, especially in a developing nation like India, which has distinct carbon mitigation goals compared to developed countries.
- Women should take the lead in decision-making processes, both at home and within organizations, as their leadership is essential for advancing initiatives in the clean cooking sector.
- Despite the critical roles women play in fuel collection and biomass production, their contributions are seldom recognized or supported through upskilling initiatives, thereby reinforcing systemic challenges in achieving gender equity
- Capacity building among rural women in the eCooking domain may be taken as a long-term strategy as it fosters trust in products and services.
- Affordable maintenance for cooking technologies is a must as high costs could compel women to revert to traditional cooking methods.
- Need to create an enabling environment that nurtures women as business leaders.
- Clean cooking solutions must prioritize immediate needs of financial and gender equity while addressing environmental issues.
- In urban environments, the challenges shift towards optimizing appliance usage and affordability, particularly for the middle class and above.
- To bolster support for women entrepreneurs recognizing their roles and responsibilities, empowering them, and creating platforms for their voices to be heard are important.
- Cooking is an inherent skill among women; however, cultural beliefs and local cooking practices present challenges in the transition to clean energy.
- Making eCooking more accessible and user-friendly for women, and standardizing cooking operations are the need for a shift in mind set alongside skill development.
- Organizing contests and boot camps to train women and students with the aim to glamorize the eCooking process and make it more appealing.
- A single stove is inadequate for a comprehensive transition to eCooking; at least double stoves with options for temperature control are necessary to meet cooking needs effectively.
- Community involvement and participatory approach are equally crucial as continuous feedback is essential for product improvement.
- Exploring carbon credit offsets and subsidies to address financial barriers for a smoother transition to clean cooking technologies

Panel Discussion : Access Vs Adoption - The Role of Supply Chain

The next panel discussion on “Access Vs Adoption - The Role of Supply Chain” highlighted that a well-coordinated specialized supply chain, spanning raw material procurement, manufacturing, distribution, financing, and after-sales service, is essential for ensuring both competitiveness and accessibility of eCooking devices in the market. The inclusion of after-sales services, such as end-of-life management, was emphasized as key to enhancing product reliability and consumer trust, particularly where localized service networks are limited. The panel stressed the need for differentiated strategies for rural and urban markets. Device standardization through quality assurance and energy efficiency certifications was also seen as vital, helping consumers in cost-sensitive markets. Experts underscored that government support, both financial and regulatory, is crucial to strengthening specific supply chain components to drive more sustainable and widespread adoption of eCooking technologies across India.

- Supply chain plays a crucial role in the transition toward modern cooking solutions in a country like India, characterized by a wide range of diversity and a population dispersed across remote locations.
- Rural areas have distinct needs, while urban areas face different challenges. Addressing these diverse requirements is essential for wider adoption of modern cooking technologies.
- Several challenges remain regarding widespread adoption of clean cooking devices, including securing sufficient funds, scaling up production, attracting carbon investments, and obtaining ongoing CSR funding.
- The necessity is for innovative products that cater to the needs of the masses.
- With the potential for financing through carbon credits, new projects could evolve into self-sustaining CSR initiatives.
- The supply chain has to adapt the demand trend since different consumer segments have varying needs of cooking devices.
- The transition from traditional cooking to eCooking is expected to occur in a phased manner.
- Accordingly, the manufacturers must carefully observe and prioritize the preferences and requirements of consumers, particularly women, as electric cooking devices are closely linked to societal aspirations.
- Public-private collaborations must play effectively in reaching out to consumers and addressing their needs and challenges.
- The transition to eCooking relies on three critical components: product design, distribution strategies, and financing, all of which must be approached holistically.
- Products must be practical and user-centric; if a device does not resonate with the user's needs, individuals are likely to revert to traditional cooking methods.
- Changing user behavior poses significant challenges, thus necessitating that product design aligns closely with user habits.
- Post-sale evaluation of products, as well as standardization and labeling are needed within the industry for success of the eCooking products.
- Labeling and standardization foster trust among consumers. By implementing robust labeling and standardization measures, the industry can enhance consumer confidence in the products ultimately facilitating better adoption and satisfaction.

Panel Discussion: The Role of DISCOMs in Scaling up of eCooking

The next session was on “Role of DISCOMs in Scaling up of eCooking”. The Experts underlined that “DISCOMs are responsible for providing a reliable, stable power supply and managing the electrical infrastructure necessary to support the increased power demand arising from eCooking devices. DISCOMs can also help in educating consumers understand the benefits of eCooking–including energy efficiency, cost savings, and environmental impacts. Key discussion points included the PM Surya Ghar Muft Bijli Yojana and its potential to accelerate eCooking adoption, alongside the infrastructure challenges faced by DISCOMs in ensuring a dependable electricity supply, especially when demand spikes. Panelists explored how these challenges differ between urban and rural areas and identified needed policy support to address these disparities

- The journey toward clean cooking and energy access in India has been complex and multifaceted, particularly given that 1.3 billion people worldwide lack energy access, with half of this population residing in India.
- eCooking has already become the preferred cooking method in many developed countries. In India, the government has undertaken several initiatives, including the GoElectric campaign, which positions eCooking as a key component alongside electric vehicle initiatives.
- Strengthening the electricity grid could significantly pave the way for a transition toward electric cooking.
- Transition to eCooking presents a revenue opportunity for Distribution Companies (DISCOMs).
- Despite universal electrification in India, many households still lack access to quality electricity. DISCOMs encounter numerous challenges, including reactive power management and load distribution, which can disrupt the system.
- The need is to identify the necessary policies or interventions to address these challenges.
- To effectively tackle the challenges of transmission and distribution, it is crucial to integrate various technologies and innovative ideas, such as utilizing smart metering for efficient load management.
- For wider adoption of eCooking, it is necessary for Distribution Companies (DISCOMs) to provide 24/7 access to high-quality power.
- If DISCOMs fail to improve their operational efficiency, provisions for penalties should be established.
- Peer-to-peer trading could offer a viable solution to address challenges associated with grid overload.
- The government consider subsidizing eCooking initiatives, given its substantial expenditure on subsidizing oil and gas.
- There exists a lack of basic infrastructure to support eCooking in many kitchens, with 13% of households lacking a 5 Amp plug and 64% having only one such plug. Furthermore, 47% of households did not have any 15-25A plugs, which are essential for electric cooking.
- Through demand aggregation, the price of electric cooking appliances could potentially decrease to between 4,000 and 5,000 INR.
- There are concerns about the stability of the power grid during base and peak loads.
- A balanced approach to enhance power generation that incorporates various sources, including nuclear, integrated gasification combined cycle (IGCC), clean coal, and advanced hydrogen technologies could be preferred.
- Decarbonizing the cooking sector is vital, as it is a significant contributor to environmental pollution and rising temperatures.
- One of the critical challenges for Distribution Companies (DISCOMs) is the substantial gap between peak demand and average demand. However the load factor is expected to improve with the increased demand from the eCooking sector.
- Strengthening the infrastructure to meet enhanced power demands poses a considerable challenge, as urban planning has not sufficiently accounted for the needs of utility infrastructure.

Special session on Research in the field of Electric Cooking

This year Forum hosted a special session on research work being carried out in the field of electric cooking. The experts participating in the discussion sought to connect research findings with policy formulation, underscoring the value of solid evidence in guiding policy decisions to advance clean cooking technologies. The findings presented included essential insights into the barriers, drivers, and potential socio-economic benefits of eCooking adoption across urban and rural areas. In particular, NIAS shared results from a baseline study in Bengaluru that analysed weekly cooking patterns among low- and middle-income households, while IIT-Bombay and JEEViKA highlighted and presented findings on the role of local women trained as clean cooking champions in sustaining electric cooking practices. IISD focused on the urban-rural adoption disparity, and presented a model demonstrating potential government savings on LPG subsidies. EnDev Bangladesh (GIZ) shared their progress in supporting clean cooking in Bangladesh through a market-based approach that empowers entrepreneurs and sets standards for eCooking appliances.

- Full-scale academic research and collaboration in the clean cooking domain is a necessity for its mass adoption.
- However, the current lack of dedicated academic journals, such as “Boiling Point,” that focus on this important area of study is a matter of concern as it limits the dissemination of knowledge and hinders ongoing research efforts.
- Robust research could provide policymakers with the necessary evidence to help and enable policy making to address the pressing challenges in the clean cooking sector.
- A research titled “An Evidence-based Approach to Access Energy Transition in Clean Cooking,” carried out by NIAS, Bengaluru aimed to identify bottlenecks in the residential cooking sector and explore how energy transitions can be facilitated.
- Need for improving power infrastructure to support the transition to eCooking.
- Recommended several measures to enhance this transition, including the expansion of product offerings, intensification of marketing efforts, increased engagement with government initiatives, strengthening local manufacturing capabilities, and prioritizing affordability for consumers are some of the measures recommended based on NIAS research.
- Various projects undertaken by GiZ in collaboration with EnDev in Bangladesh have confirmed that transition to clean cooking has significant impacts on health and environmental outcomes, capacity building, and social empowerment.
- A project by IITB titled "Enabling Electric Cooking Ecosystem in Rural India” conducted in collaboration with J-Wires in two districts of Bihar identified significant opportunities, such as a strong Self-Help Group (SHG) network, nearly 100% electrified households, low penetration of eCooking appliances, and the availability of skilled manpower for installation and service, besides a promising carbon market due to the prevalent use of biomass for cooking
- Another study titled "Challenges and Opportunities to Promote Electric Cooking in India” conducted at the International Institute of Sustainable Development confirmed the dependency on imported LPG incurs significant costs to the Exchequer and exposes consumers to the volatility of international energy markets.
- Furthermore, as a fossil fuel, LPG does not align with India's long-term net-zero commitments. In contrast, eCooking addresses many of the risks associated with LPG dependency and aligns well with India’s clean energy targets and net-zero objectives.
- The study indicated that with targeted technological improvements and policy interventions, eCooking could readily serve as the primary cooking fuel for most households in India.
- Promoting decentralized O&M services of eCooking devices offers a potential solution to enhance user confidence and increase the adoption of eCooking technologies.

GLIMPSE OF EXHIBITION ON MODERN ENERGY COOKING TECHNOLOGIES










TECHNOLOGY SHOWCASE /EXHIBITION OF MODERN COOKING APPLIANCES

This year's Forum hosted a dynamic technology showcase at the Indian Habitat Centre on 27th September, spotlighting the latest advancements in clean cooking technologies. This exhibition brought together a diverse array of companies, including industry leaders like Indian Oil Corporation Limited, Energy Efficiency Services Limited (EESL), and TTK Prestige, along with innovative startups such as Simi Stove Private Limited and GHG Reduction Technologies Pvt. Ltd. From cutting-edge electric pressure cookers and infrared radiant cookstoves to ethanol gel stoves and biogas production units, the event featured a broad spectrum of products designed to drive the transition toward sustainable cooking practices. Delegates had the opportunity to engage with these innovations firsthand, fostering awareness, dialogue, and collaboration among key stakeholders in the clean cooking ecosystem.

Companies: Mish Horeca Services, Indian Oil Corporation Limited, Rudra Solar Energy, Simi Stove Private Limited, Smith Innovative Appliances Pvt Ltd, EPACK Durable Limited, Energy Efficiency Services Limited (EESL), KOKO Networks, Soft Tech Renewable Energies (STRE) Induciia, TTK Prestige, Panacean, GHG Reduction Technologies Pvt. Ltd., V Guard, Bajaj, Systema Bio.

Product Showcase: Cooking Technologies:

- EPC (Electric Pressure Cooker)
- Infrared radiant cookstoves
- Ethanol-based burners and cooking gel devices
- Induction cookstoves (including double-burner models)
- Smart rice cookers, air fryers, and kettles

Sustainable Innovations:

- Small biogas production units for rural applications
- Solar Thermal hybrid Cooktop
- Hybrid double-burner cookstoves

The session aimed to showcase the advancements, innovative technologies, and designs in modern cooking appliances. It provides the platform to educate attendees about the socio-economic and environmental benefits of clean cooking technologies while facilitating partnerships among manufacturers, researchers, and policymakers. It emphasized the need for localized manufacturing, decentralized maintenance services, and supportive government policies to ensure widespread adoption.

SPEAKER PROFILE

PROF MATTHEW LEACH

PROFESSOR OF ENERGY AND ENVIRONMENTAL SYSTEMS,
MECS PROGRAMME LEAD FOR CLEAN ENERGY, FINANCE AND DATA ANALYSIS

Matt is Professor of Energy and Environmental Systems and leads work within the MECS programme on data analysis and modelling. He is a chartered engineer and has been researching and teaching on energy policy, low carbon technologies, decentralized energy system and energy modelling for more than 30 years.
Within MECS, Matthew's work has included development of tools and analysis for the costs of cooking, and the financial, environmental and social costs and benefits of cooking transitions, applied for numerous countries in Africa and South and Southeast Asia. Most recently he has been supporting development of digital data carbon credit methodologies for modern cooking.

DR AJAY MATHUR

DIRECTOR GENERAL
INTERNATIONAL SOLAR ALLIANCE

Dr Mathur has spearheaded the implementation of solar energy projects and capacity building projects in many developing countries, and of the publication of annual progress reports on solar technology, markets and investments. The ISA is a treaty –based inter-governmental organization with 119 member countries, which aims to make solar as the energy-of-choice in its member countries. Prior to joining ISA, Dr. Mathur was Director General of the Energy and Resources Institute (TERI) and a member of the Prime Minister of India's Council on Climate Change.
He was co-chair of the global Energy Transitions Commission and the Clean Cooling Initiatives of the One Planet Summit. He earlier headed the Indian Bureau of Energy Efficiency and was responsible for its foundational programmes, which mainstreamed energy efficiency through initiatives such as the Star Labelling program for appliances, the Energy Conservation Building Code, and the Perform

MS ARCHANA CHAUHAN

HEAD-ENERGY SECTOR REFORM
BRITISH HIGH COMMISSION, NEW DELHI

Archana heads the Energy Sector Policy Reforms at British High Commission, New Delhi where she leads the UK-India Bilateral programme called Accelerating Smart Power and Renewable Energy in India (ASPiRE) which majorly provides support in smart Power and renewables sector in India. She is energy professional with an experience of over 12 years in energy and power sector, particularly in the areas of energy efficiency, renewables and electric mobility.

Archana possesses expertise in collaborating with central and state government in India on energy policies, policy implementation and various business models for the emerging energy sector. Previously, Archana headed the National electric bus programme in Convergence Energy Services Limited (CESL).

MR MILIND DEORE

SECRETARY
BUREAU OF ENERGY EFFICIENCY

Milind Deore, Secretary of BEE, brings over 22 years of expertise in the energy sector, including 12+ years at BEE. He leads key initiatives under the Energy Conservation Act, such as the Perform, Achieve, and Trade (PAT) Scheme, Standards and Labelling (S&L) Program, and energy efficiency efforts for MSMEs and DISCOMs.Under his guidance, the National Energy Conservation Awards (NECA) and the National Painting Competition have expanded and the State Energy Efficiency Index (SEEI), fostering competition and best practices across states. He has strengthened energy audits in DISCOMs, enhanced SME efficiency through resource mapping, and enforced compliance in energy-intensive sectors. Notably, he spearheaded the Renewable Consumption Obligation (RCO) notification, setting India's renewable energy targets for 2024-2030. His leadership extends to managing international projects, including GEF-funded energy efficiency programs with UNIDO and the World Bank, driving advanced technologies in India's SME sector.

DR NICK ROUSSEAU

INTERNATIONAL LIAISON MANAGER
MECS PROGRAMME

Nick has over 20 years of experience of working in UK Government – his final role was Head of International Innovation Strategy at the Department of Business, Innovation and Skills. Nick led the innovation strand of the Newton programme and Government to Government policy dialogues. Nick's consultancy, Unconventional Connections, focuses on innovation collaboration included work funded by DfID on harnessing the UK's strengths in clean energy technology to increase access to clean energy in Africa and SE Asia. Nick has a personal interest in sustainable solutions to local and global food-related challenges – in 2015 he set up the Woven Network – UK-based network for those working on insect protein. Nick holds BA, MSc and PhD degrees in psychology from the universities of Cambridge, Loughborough and Sheffield with a focus on psychology and user centred system design. Within the MECS project, Nick is one of the International Liaison Managers for India.

MR ABHISHEK SHARMA

DIRECTOR, BUREAU OF ENERGY EFFICIENCY (BEE)

With wide experience of over 14 years, Mr Abhishek Sharma is the Joint Director of BEE and prior to this he had been associated with Energy efficiency and renewable energy management centre.

MR VIMAL KUMAR

MECS INDIA LEAD & COFOUNDER
FINOVISTA

Mr Vimal is Co-founder of Finovista, works extensively in the areas of In-country Representation, Program Management Consulting, Technology Transfer and Capacity Building. He possesses extensive expertise and experience in managing various National, Bilateral and Multilateral programs and Indo-German GINSEP's Ambassador. At Finovista, he leads prestigious programs viz, India-UK Future Telecom Partnership Prog (UK Govt), UK-India Innovation Partnership Initiative (UKIPI) under COP26 (UK Govt), Tech4Good Innovation Challenge (German Govt), Social Enterprise (So Enterprising) Development (Indian Govt), Promotion of CSIR Knowledgebase etc. Additionally, during the association with Global Innovation & Technology Alliance (GITA), as a Head of Strategy & Partnership, conceptualized and managed Bilateral Collaborative Industrial R&D Programs with Canada, Finland, Israel, Italy, Spain, South Korea, UK etc. Vimal believes in integrating Innovation and Finance for societal development and economic growth.

DR LOKESH CHANDRA DUBE

SENIOR MANAGER
STANDARD DEVELOPMENT AND INNOVATION, GOLD STANDARD

Lokesh Chandra Dube is a Senior Manager at Gold Standard, specializing in Standard Development & Innovation, and a Visiting Research Fellow at IISD-CMI, focusing on Climate Change Policy, Carbon Management, GHG Inventorization, Carbon Forestry & REDD+, and Carbon Finance. He has been instrumental in preparing India's National Communications and Biennial Update Reports for the Ministry of Environment, Forest and Climate Change (MoEF&CC) and was part of India's delegation to COP 25. A former consultant with Emergent Ventures India and GHG Auditor with TÜV NORD Group, Lokesh has worked on over 60 UNFCCC Mitigation CDM projects and developed a new CDM methodology. He is a Fellow of the International Society for Tropical Ecology, a recipient of the Aquaguard Young Scientist Award-2005, and was nominated by the Government of India to the UNFCCC Roster of Experts.

MR MANISH DABKARA

CHAIRMAN & MD,
EKI ENERGY SERVICES LTD

Manish Dabkara is the Chairman & MD of EKI Energy Services Ltd., a global leader in carbon credit development and supply, which he founded in 2008. Under his leadership, EKI has supplied over 200 million carbon offsets and expanded its client base to 3500+ across 40+ countries. A certified Energy Auditor and Manager, with certifications from IIM-A, IIM Indore, CII, and GIZ, Manish holds a Master's in Technology in Energy Management. Recognized as one of Fortune's 40 Under 40 in 2022, he is also the President-elect of the Carbon Markets Association of India and a recipient of multiple awards, including the Rajiv Gandhi Excellence Award and Hurun India Impact Entrepreneur of the Year 2022. Manish ranks among India's top 15 self-made billionaires under 40 and is the only businessman from the carbon credit industry in the IIFL Wealth Hurun India list.

MR SRISKANDH SUBRAMANIAN

CHIEF SUSTAINABILITY OFFICER
MICRO ENERGY CREDITS

Sriskandh oversees the carbon program of MEC. He has worked on global sustainability issues for over 15 years. He has previously worked as the Head of Standard Development at the Gold Standard Foundation and serves on the Registration and Issuance Team of the UNFCCC. Sriskandh oversees the carbon program of MicroEnergy Credits. He has worked on global sustainability issues for close to 20 years. He has previously worked as the Head of Standard Development at the Gold Standard Foundation and has been a co-author of several of the cookstove methodologies used in the sector. He previously served on the Registration and Issuance Team of the UNFCCC. MicroEnergy Credits has been active in the clean cooking space for nearly two decades and recently achieved the first registration and issuance of carbon credits using the MECS-supported Gold Standard metered methodology.

MS SNIGDHA VERMA

HEAD, CARBON CREDITS
CONVERGENCE ENERGY SERVICES LTD.

Ms. Snigdha Verma represents a venture of the Ministry of Power, Government of India –Convergence Energy Services Ltd. (CESL). At CESL, she oversees carbon credit asset creation and monetization from Gram UJALA and Public E-Mobility programs. Ms. Verma graduated with a Master of Science in Public Policy from Carnegie Mellon University, Pennsylvania, in 2010. She started her development policy career at The World Bank / IFC in Washington DC where she worked for half a decade, contributing to knowledge papers including Good Practices for Financial Consumer Protection. She returned to India and started serving 'Solar Mamas' at Barefoot College, a not-for-profit social enterprise, leading projects in Assam Tea Plantations.

Ms. Verma has been interviewed by She Inspires program of Sansad (Rajya Sabha) TV, invited as a fellow by Monash University – Melbourne, Australia, and received the "Women in Power" Award for 2024 by India Smart Grid Forum. She regularly writes for and presents at global institutions such as Booz Allen Hamilton, Carbon Copy, The Climate Group, and UN Women.

DR DEBAJIT PALIT

PROFESSOR OF ENERGY
NTPC SCHOOL OF BUSINESS

Dr. Debajit Palit has over 25 years of experience in renewable energy, energy transition, clean energy access, rural electrification, and the water-energy-food nexus. He was listed in Stanford University's Top 2% of the World's Scientists for three consecutive years. Before joining NTPC School of Business in 2022, Dr. Palit spent over two decades at The Energy and Resources Institute (TERI), leading nearly 200 projects, including the award-winning Lighting a Billion Lives Initiative. He has worked on projects for the UN, World Bank, ADB, and governments in 17 countries, published 3 books and 145 papers, and is a prominent speaker on rural energy, mini-grids, and energy-gender-poverty issues. Dr. Palit is conversant with policy and programme formulation and has been part of various Government of India Committees and National/International Expert Groups on Energy & Rural Electrification and Jury Member for academic & corporate awards.

DR PARVEEN DHAMIJA

FORMER ADVISER- SKILL COUNCIL FOR GREEN JOBS
FORMER ADVISER / SCIENTIST G, MINISTRY OF NEW & RENEWABLE ENERGY

Dr Parveen Dhamija is currently Advisor, Skill Council for Green Jobs (SCGJ), New Delhi for skill development in renewable energy and sustainable development and Former Scientist 'G' / Advisor of Ministry of New and Renewable Energy.

Dr Parveen Dhamija has more than three decades of vast experience and expertise in development, promotion, adoption and monitoring of different renewable technologies with special focus on Biomass based technologies for promoting clean cooking to reduce indoor air pollution for improving health of women and reducing their drudgery by coordinating National Programmes of Biogas, Improved Chulhas, Women and Renewable Energy Development Village Energy Security and promotion of new technologies like Fuel Cells Hydrogen energy, Battery Operated Vehicles, Geothermal Energy and Tidal Energy.

Dr Parveen Dhamija was also Head of the State Nodal Agency and State Designated Agency for Government of Delhi for promotion of renewable energy, improving energy efficiency and climate change activities in the State of Delhi.

MR MANOJ MAHATA

ENERGY ADVISOR
IMPLEMENTATION OF ENERGY PLAN, GIZ INDIA

Manoj has 25 years of experience, with 20 years in the development sector. He holds a BE in Mechanical Engineering, an MBA in Materials and HR, and a PGD in Marketing. His expertise spans the design and management of bi/multi-lateral development cooperation, the implementation of development programs and strategies, and multi-sectoral strategic energy planning, having assisted six state governments. Manoj has significant experience in rural development, particularly for small and micro-enterprise growth, and has worked across various energy sectors, including mini-grids, bio-energy, decentralized renewable energy (DRE) applications, cooking energy technologies, and value chain assessment and development. His work also includes policy and regulatory analysis.

MS AKANKSHA SHARMA

HEAD OF CLIMATETECH AND DIGITAL UTILITIES,
GSMA

Akanksha is the Head of the ClimateTech and Digital Utilities programmes at the GSMA. She specialises in the use of information and communications technology for social good and effective climate action. Akanksha has led key research pieces and investments focussed on tech business models linked to energy, water, sanitation, climate resilience and adaptation as well as climate finance in low- and middle-income countries across Asia and Africa.
An avid reader and a public speaker, Akanksha has been with the GSMA for over a decade. Prior to this, Akanksha worked with a power and utilities research firm in India. A psychology graduate, Akanksha did her Master's in Business Management in India, the country she was born and raised in.

MR SUNIL MANI

POLICY ADVISOR
INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT

Sunil is a policy advisor for IISD's Energy program with research focusing on clean cooking, energy access, just energy transitions, and budgeting for net-zero scenarios in India.
Before joining IISD, Sunil worked as a researcher for seven years at the Council on Energy, Environment and Water, studying the energy access situation for households and community use in India (through a multidimensional lens), and on devising corrective policy measures.
Based in India, Sunil completed both his undergraduate and Master's degree in quantitative economics from Delhi University and Shiv Nadar University, respectively, and quantitative research has been at the core of most of his work

MS SWETHA RAVI KUMAR

HEAD OF FSR GLOBAL, FLORENCE SCHOOL
OF REGULATION

Swetha is the Executive Director of FSR Global. She is responsible for the development of the research, training and policy dialogue activities of FSR Global, which focuses on strengthening the global south-south and north-south transcontinental knowledge exchange. Some of the key project areas she is currently focused on include; Smart Grid Observatory for India, Resource Adequacy Planning and Modelling for India, Digitalisation of the Power Sector, Regulation for SDG 7; Electric Vehicles – Mobility meets the Power Sector etc.
She is also the Vice President of Communications at both the International and Indian Associations for Energy Economics and chairs 'The Energy Network,' a women's platform for energy professionals. Swetha has previously worked with FMO Dutch Development Bank, Fraunhofer Institute, CII Green Business Centre, ISRO, and others. She holds a Master's in Sustainable Energy Engineering from KTH Royal Institute of Technology, Sweden, and an Advanced Management Program from IIM Bangalore, India.

CHEF DIVYA BOSE

SENIOR LECTURER
INSTITUTE OF HOTEL MANAGEMENT, PUSA, NEW DELHI

Chef Divya Bose is a passionate and dedicated culinary expert with over 17 years of experience in the hospitality and academic sectors. As a professional Chef Trainer (Senior Lecturer) specializing in Bakery and Confectionery at the Institute of Hotel Management, Pusa, New Delhi, she brings a wealth of knowledge and leadership toher role. Chef Divya has also served as a Freelance Food Consultant, specializing i product development and operations consulting. Her mentorship has led students to win prestigious awards, including a Silver Medal at AAHAR 2013 and the International Young Chef's Challenge in China. She began her culinary journey at IHM Pusa, winning numerous competitions, including the Best Plated Dessert award. Known for her pragmatic and analytical approach, she excels at motivating teams and fostering talent to achieve common goals.

MR SOUMANIL MUKHERJEE

CONSULTANT,
OFFICE OF PRINCIPAL SCIENTIFIC ADVISOR TO THE GOVT OF INDIA

Soumanil has 14+ years of working with Industries and Government Ecosystems in Market Research, Content Writing, Product Marketing, and Business Development. His previous stints were with Confederation of Indian Industry (CII) and PHD Chamber of Commerce and Industry in the Skill Development and Livelihood, Membership, Culture & Sports departments, and Government sectors. He has worked extensively in the K-12 and Higher Education segment and managed bulk assessments through sector skill councils for multiple employment-linked skill training schemes by the Govt of India. One of the CSR projects he delivered which were undertaken by CII was for 'Saksham' project of DFCCIL that won "Golden Peacock Award for sustainability" in the year 2016. Over the last few years, he also helped two Start-ups from SaaS Industry and large Ed-Tech companies in different capacities. Soumanil is an MBA from IMT Ghaziabad with specializations in International Business, Brand Management and Strategic Management. Under his current role in the Strategic Alliances Division, he is responsible for facilitating partnerships among State Governments, Public Sector Undertakings (PSUs) and India's research & start-ups innovation ecosystem.

MR RAVI SHANKAR CHAUDHARY

SECRETARY GENERAL
CONSUMER ELECTRONICS AND APPLIANCES MANUFACTURERS ASSOCIATION

Mr. Ravi Shankar Chaudhary is an MBA from the Indian Institute of Management (Ahmedabad) and has approximately 15 years of global experience in areas such as Public Sector Advisory, Government Relations, Governance and reforms, Policy Formulation, and implementation, with a focus on Electronics and IT sectors. Ravi has worked on numerous projects for central and state governments in India, Africa, and West Asia. Ravi has worked extensively in government advisory during his stint with Government Consulting functions of Deloitte and Wipro. Ravi has handled projects funded by international development agencies such as the World Bank, Asian Development Bank, European Union Development Fund, etc. as well as large business conglomerates. Ravi's additional credentials are a Harvard Certification in 'Management Essentials' and he is a certified 'Wipro Learning Champion'.

MR MD MAZHER ALAM

GM (MKTG. STRATEGY)
INDIAN OIL CORPORATION LTD

Mohd. Mazher Alam GM (Marketing Strategy) ,IOCL, is an experienced oil industry professional with over 27 + years of extensive experience in Leading and Managing Teams including General Administration, Business Planning, Product Management, Sales, Retail, Project Management, Product Development and Channel Management, Safety Administration, Security and Fire Administration, materials management. He excels in driving revenue growth, identifying new opportunities, and building relationships with key decision-makers. Currently, he is driving Indian Oil's Indoor Solar Cooking project from empowerment of vendors to commercialization of the product in the market. Looking after Advanced data analytics initiative "I-DEA" for solving cases of LPG, HR using data driven insights. An alumnus of IIT Delhi, Mazher is known for enhancing operational effectiveness and delivering results within cost, time, and quality parameters.

MR NITIN BHATT

DEPUTY GENERAL MANAGER
(SALES & PUBLIC RELATIONS) ENERGY EFFICIENCY SERVICES LTD

MMr Nitin Bhatt is currently serving as Deputy General Manager at EESL under the Ministry of Power, Government of India, bringing over a decade of expertise to the field of Energy Efficiency. Notably, he has served as the State Head for Punjab and Haryana, spearheading the successful implementation of UJALA, a national flagship scheme of the Government of India. His innovative execution strategy led to the program's success in both states. He is also a former Member of the Advisory Board of Punjab State Electricity Regulatory Commission.

In recognition of his outstanding achievements, Mr. Bhatt was entrusted with replicating the UJALA scheme in Malaysia, which he effectively implemented. Leveraging his exceptional project management skills, he is now actively contributing his knowledge to IMT GT – JBC (Indonesia Malaysia Thailand Growth Triangle – Joint Business Council). His focus includes implementing various Energy Efficiency measures, with a special emphasis on the Eco-Schools program in the region.

Mr. Bhatt leads all Energy Efficiency initiatives in Ladakh, overseeing projects like Inverter LED bulb distribution, space heating solutions, Energy Management Systems, and Clean Cooking Schemes, all aligned with the goal of achieving a 'Carbon Neutral Ladakh.' Additionally, he serves as the Program Head for the newly launched National Efficient Cooking Programme, demonstrating his commitment to sustainable practices.

MS ANUBHA SHUKLA

CHIEF COMMERCIAL OFFICER
HUSK POWER SYSTEMS

Ms. Anubha Shukla is a leader in sustainable energy and rural empowerment, with over a decade of experience in renewables strategy, business development, marketing, and sales. Having worked with industry giants like L&T, Hilti, and Mahindra Susten, she now serves as the Chief Commercial Officer at Husk Power Systems, where she leads the company's Direct-to-Rural (D2R) platform. This innovative approach combines e-commerce, retail, and offline channels with credit financing to deliver energy solutions to rural communities in India and Africa. Anubha is dedicated to transforming overlooked markets and disrupting the rural tech and energy sectors.

MS REENA SURI

EXECUTIVE DIRECTOR
INDIA SMART GRID FORUM

Ms Reena Suri, Executive Director of the India Smart Grid Forum (ISGF) since 2013, brings over 20 years of rich experience in the energy sector. She has played a key role in various ISGF projects, including the Electrification Plan for Public Transportation, Blockchain for Electric Utilities, Energy Storage Roadmap for India, Smart Grid Roadmap, and developing smart grid and EV infrastructure plans for the SAARC Region. Reena also led the World Bank EV Project in Kolkata. As the founder-editor of the Smart Grid Bulletin, Reena has been a voice for smart grid advancements since 2013. She is passionate about increasing gender diversity in the energy sector, leading initiatives to improve networking and mentoring programs for women, raise awareness and technology skills among women, and attract women to technical education by showcasing inspiring role models.

MR GOPAL K NARIYA

VICE-PRESIDENT
BSES RAJDHANI POWER LIMITED

Mr Gopal.K. Nariya has 30 years of experience in power distribution, transmission and generation. He is the Vice President, BSES Rajdhani Power Limited. Currently, he oversees Central Engineering Services, Automation, Demand side management, PAT, Energy Audit and Analytics, Non-Tariff Income, O & M – Asset Master Management. Previously, he has occupied leadership roles at Reliance Infrastructure Limited, GIPCL (subsidiary of erstwhile GEB) and the Ahmadabad Electricity Company Limited. Mr Nariya has pursued graduation in B.E(Electrical) from No

DR JYOTI PARIKH

EXECUTIVE DIRECTOR
INTEGRATED RESEARCH AND ACTION FOR DEVELOPMENT

Dr Jyoti K Parikh, Executive Director and Founding Director of IRADe. She was a member of the former Prime Minister's Council on Climate Change – India. She served as energy consultant to the World Bank, the U.S. Department of Energy, EU, Brussels and U.N. agencies. She has served as an advisor to various ministries for the Government of India and has held national and international Appointments. She was on the Board of directors Executive Director Integrated Research and Action for Development (IRADe) of Indian Renewable Energy Development Agency Ltd (IREDA) 2001-2004 and National Institute of Urban Affairs (NIUA), MoUD, GoI. She has served on several International Journal editorial boards, and as a reviewer. She obtained her M.Sc. from the University of California, Berkeley, in 1964 and Ph.D. in Theoretical Physics from the University of Maryland, College Park in 1967. She has guided 12 Ph.D. theses and given lectures in more than 40 countries worldwide.

MS RENU SHARMA

DHARMA LIFE
LEAD DEPUTY MANAGER- PROJECT AND SERVICES

A development professional having a European master's degree in Comparative Local Development Studies, and PG diploma in Rural Management with more than 10 years of professional experience. Cross-functional and cross-sectoral experience of having worked with the government (at State and National level) and Multilateral organisations (UN).

Experience of working for Deen Dayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM), a poverty reduction programme of Government of India for improving livelihoods of rural poor. Possess good experience in the areas of women empowerment, health, gender, policy advocacy, social inclusion and development, financial inclusion, capacity building, livelihood development, monitoring, learning and evaluation (MLE).

Awardee of Erasmus+ Scholarship, a prestigious, international study programme by the European Union

MS SUMEDHA AWASTHY

ASSOCIATE
CLASP

Sumedha Awasthy has 6 years of experience in renewable energy, climate change, and energy efficiency. She previously worked at the Centre for Science and Environment, designing clean cooking programs, and at the International Institute for Energy Conservation, where she contributed to state climate action plans and GHG accounting projects. Sumedha has also supported the Government of Maharashtra in developing a comprehensive rating tool for Farmer Producer Companies and trained staff on creating bankable business models. She has been part of the World Bank RISE team and is involved in the Clean Cooking Alliance mentorship program. Outside of work, she volunteers for a not-for-profit working to create awareness about breast cancer. She holds a master's degree in Resource Management and Design Application from the University of Delhi, India, and has done a certificate course from Harvard Business School on Sustainable Business Practices

MR ANIMESH MISHRA

CHIEF GENERAL MANAGER / HEAD (SALES & CCPR)
ENERGY EFFICIENCY SERVICES LTD (EESL)

His Journey at EESL, assuming the mantle of Head of Sales and PR. With a trove of two decades of experience glistening in his repertoire, he had previously graced telecom and manufacturing giants like Airtel, Sleepwell, and Vodafone. At EESL, Animesh's virtuosity shone, orchestrating triumph after triumph in the realm of campaigns. He pioneered the Channel Partner Program, expertly weaving partnerships, expanded the Distribution Network, and painted vibrant portraits of brand presence through Digital Marketing. Animesh's pièce de résistance, however, lay in his fervent commitment to advancing the Digital India program, earning him accolades across numerous platforms, a testament to his dedication in shaping EESL digital destiny.

DR RUDRODIP MAJUMDAR

ASSISTANT PROFESSOR,
NATIONAL INSTITUTE OF ADVANCED STUDIES

Dr. Rudrodip Majumdar joined NIAS on August 23rd, 2019. He has a PhD in Nuclear Engineering from North Carolina University in the USA and an MTech in Nuclear Engineering from IIT Kanpur. Before joining NIAS Rudrodip worked as an Institute Postdoctoral Fellow at IIT Bombay and as a Postdoctoral Research Assistant at North Carolina State University. Rudrodip's research interests broadly lie in renewable and clean energy, nuclear and plasma fusion energy, industrial applications of plasma, and the analysis of energy-efficient sustainable systems. He has 31 International Journal articles, 16 International Conference proceedings papers, and 11 invited Book Chapters in edited International Monographs. His research on urban sustainability has been quoted in popular media such as Deccan Herald, News Karnataka, and Bangalore Mirror.

MS PUJA SAHA

JUNIOR ENERGY ADVISOR
GIZ BANGLADESH

Puja Saha is a dedicated professional with a strong background in Renewable Energy and Sustainable Development. She holds an M.Tech in Alternate Hydro Energy Systems from Indian Institute of Technology Roorkee (IIT-R), India and a B.Sc. in Electrical, Electronic & Communication Engineering from Military Institute of Science and Technology (MIST), Bangladesh. As a Junior Energy Advisor at GIZ Bangladesh, Puja has led impactful projects, including initiatives focused on solar energy, electric vehicles, and clean cooking solutions, demonstrating exceptional leadership. Her commitment to advancing sustainable energy practices is further reflected in her role with EnDev Bangladesh, where she is leading efforts to promote clean cooking technologies.

DR JAYENDRAN VENKATESWARAN

PROFESSOR
IIT BOMBAY

Prof. Jayendran Venkateswaran is an Institute Chair Professor of Industrial Engineering and Operations Research at IIT Bombay, specializing in systems thinking, simulation, supply chain, sustainability, and OR for development. With experience working with multinational companies like General Mills and RBI, he has published extensively and guided 9 PhD and 40+ Master's students since joining in 2005. He is also currently the Head of IEOR department.Prof. Jayendran co-led the award-winning Solar Urja through Localisation for Sustainability (SoULS) initiative at IIT Bombay, promoting decentralized solar energy, skilling, and rural entrepreneurship. He collaborates with development agencies and rural communities, and the initiative received the IEEE Empower a Billion Lives Global Award in 2019. Prof. Jayendran serves as Secretary of the Operations Research Society of India (ORSI) Mumbai Chapter and is a member of the System Dynamics Society and Society of Operations Management. He holds a PhD and Master's in Systems & Industrial Engineering from the University of Arizona.

MS SHEETAL RASTOGI

CO-FOUNDER
LEAD - STRATEGY & OUTREACH,
FINOVISTA, MECS PROGRAMME IN INDIA

Sheetal holds over 16 years of experience in developing strategy and execution roadmaps for new business initiatives. She has a diverse background of working with leading firms in Banking & Finance, Manufacturing, and Specialty Retail. At Finovista, Sheetal has been leading strategy and programme execution has led to the execution of multiple innovation support and entrepreneurship development programmes in Finovista, some of which were on specific thematic areas like Clean Cooking, Bamboo Innovation Challenge, and Women entrepreneurship programmes. Under MECS Programme, in India, Sheetal has been instrumental in leading the executions of the various initiatives under the programme, planning and strategizing new initiatives and concepts "Talk Series" & "Modern Energy

Cooking Forum 2022". She has also been the lead for the work under building strong evidence on electric cooking through India eCookbook – Cooking Study Design & Development, project In-depth exploration of 100% cooking with electricity, field trail of electric cooking for 14 households, electric cooking appliance mapping.

MR ABHISHEK GUPTA

HEAD OF INTERNATIONAL, STRATEGY, APPLIANCES, ROOFTOP SOLAR AND PE & AENERGY EFFICIENCY SERVICES LIMITED

Mr Abhishek Gupta is the head of International Business, Strategy, Appliances, Rooftop Solar and Project Evaluation & Assessment verticals at Energy Efficiency Services Limited which is India's leading energy service company.
Additionally, he is Director on the Board of seven entities namely EESL Energy Solutions LLC, UAE; Edina UK Limited, UK; Edina Power Limited, UK; Edina Limited, Ireland; Stanbeck Limited, Ireland; Armoura Holdings Limited, Ireland; Edina Australia Pty Limited, Australia. He has over 23 years of experience in the sustainability, energy efficiency, renewable energy, and infrastructure sectors, and he is a certified energy auditor by the National Productivity Council.
Mr Abhishek's core competencies include strategy, negotiation, business development, management, and contract management. He leads the team that formulates and evaluates business strategies for developing new business verticals, models, and markets for EESL and its group entities, both in India and abroad. He also oversees the project appraisal and assessment of potential business opportunities, ensuring their bankability, adoptability, and replicability. He aims to create value and impact in the field of energy efficiency and green solutions, by leveraging my expertise and experience in various domains, such as sustainable cooling, clean cooking, women empowerment, net zero, carbon neutrality, and green hydrogen.

MR RAJAN VARSHNEY

DEPUTY GENERAL MANAGER
NTPC

Rajan Varshney is presently heading New initiatives at NTPC the largest power company which is diversifying into related fields. Rajan Varshney is MTech from IITD and BE & MBA from Delhi. Certifications include "Harvard Management Mentor", Certifications in Carbon Markets and Energy Markets.

He has over 35 years experience in the energy sector. He has installed an innovative waste water treatment system in NTPC corporate office. He took initiatives in ash utilisation. He designed and implemented the ERP system in NTPC in the late Nineties and carried out many innovations that have won many accolades. He spearheaded efforts for September 2020 notifications for H2/HCNG as permitted fuel in Indian Motor Vehicle act and Safety standards for FCEVs. He is passionate about environment & sustainability. He has been lead speaker at various national and international conferences. His interest areas include Concentrated Solar Power, Concentrated Solar Thermal, OTEC, Nanomaterials, wastewater treatment, CO_2 capture and utilisation, Hydrogen economy, Waste to bio-Hydrogen and Sustainable fuels etc.

PARTNER PROFILES

Modern Energy Cooking Services Programme (MECS)

Modern Energy Cooking Services (MECS) is a UK Aid (FCDO) funded research programme led by Loughborough University and the World Bank's Energy Sector Management Assistance Program (ESMAP). By integrating Modern Energy Cooking Services into the planning for electricity access, quality, reliability, and sustainability, Modern Energy Cooking Services hopes to leverage investment in renewable energies (both grid and off-grid) to address the clean cooking challenge. Modern Energy Cooking Services is implementing a strategy focused on including the cooking needs of households in the investment and action on access to affordable, reliable, sustainable modern energy for all.

Office of the Principal Scientific Adviser to the Government of India

The Government of India established the Office of the Principal Scientific Adviser (PSA) in November 1999. The PSA's office aims to provide pragmatic and objective advice to the Prime Minister and the cabinet in matters of Science and Technology. The Office of PSA was placed under the Cabinet Secretariat in August, 2018. S&T fundamentals with applied research in collaboration with multiple stakeholders, both in central and state governments. Enabling future preparedness in emerging domains of science and technology. Formulating and coordinating major inter-ministerial S&T missions. Providing an enabling ecosystem for technology led innovations and techno-entrepreneurship. Driving innovation and technology delivery towards solving socio-economic challenges for sustainable growth. Fostering effective public-private linkages for driving research and Innovation sectors energy sources.

International Solar Alliance (ISA)

The International Solar Alliance (ISA) is an action-oriented, member-driven, collaborative platform for increased deployment of solar energy technologies as a means for bringing energy access, ensuring energy security, and driving energy transition in its member countries. The ISA strives to develop and deploy cost-effective and transformational energy solutions powered by the sun to help member countries develop low-carbon growth trajectories, with particular focus on delivering impact in countries categorized as Least Developed Countries (LDCs) and the Small Island Developing States (SIDS). ISA's has partnerships with multilateral development banks (MDBs), development financial institutions (DFIs), private and public sector organisations, civil society and other international institutions. The ISA is guided by its 'Towards 1000' strategy which aims to mobilise USD 1,000 billion of investments in solar energy solutions by 2030, while delivering energy access to 1,000 million people using clean energy solutions and resulting in installation of 1,000 GW of solar energy capacity. Currently, the ISA has 9 comprehensive programmes, each focusing on a distinct application that could help scale deployment of solar energy solutions.

PARTNER PROFILES

Energy Efficiency Services Limited (EESL)

Energy Efficiency Services Limited (EESL) is a Super Energy Service Company (ESCO), which enables consumers, industries and governments to effectively manage their energy needs through energy efficient technologies. EESL is implementing the world's largest energy efficiency portfolio across sectors like lighting, buildings, industry electric mobility, smart metering, agriculture, etc. at an enormous scale.EESL's energy efficiency solutions have saved India over 47 billion kWh energy annually while reducing 36.5 million tons of carbon emission. Founded in 2009, EESL is promoted by Ministry of Power,Government of India as a Joint Venture of four reputed public- sector undertakings NTPC Limited, Power Finance Corporation Limited, REC Limited and POWERGRID Corporation of India Limited. EESL focuses on solution-driven innovation without taking support of any subsidy from the Govt.

Outreach partners

Carbon Markets Association of India (CMAI)

The Carbon Markets Association of India (CMAI) is a strategic alliance of industry leaders dedicated to fostering the development of a robust carbon credit market in India, supporting the nation's commitment to achieve Net Zero by 2070. CMAI actively collaborates with stakeholders, including the government, businesses, farmers, MSMEs, think tanks, and financial institutions, to drive sustainable practices and formulate strategies aligned with India's Nationally Determined Contributions (NDC). The organization is a key participant in national carbon market initiatives, such as the National Cap & Trade Carbon Market, and is a member of the NITI Aayog task force on Carbon Capture and Utilization. It has signed several MoUs with government bodies, including the Ministry of New & Renewable Energy and the Ministry of Agriculture, to promote capacity building and sustainable climate solutions at the grassroots level.

CMAI plays a critical role in advancing India's carbon market by contributing to policy frameworks and knowledge sharing across diverse sectors. Registered as a not-for-profit organization, it engages in various outreach efforts, including its involvement in the LiFE campaign, with the goal of reaching 2 million households to promote sustainable practices. CMAI's leadership includes President Manish Dabkara, also the Managing Director of EKI Energy Services, and Secretary-General Rohit Kumar, who is recognized for his environmental initiatives. Prominent members of the association include major corporations such as NTPC, Reliance Ltd., Tata Power Renewable Energy Limited, and Indian Oil Corporation, as well as international and governmental organizations. Through these efforts, CMAI is positioned as a pivotal player in India's transition to a low-carbon economy.

PARTNER PROFILES

Consumer Electronics and Appliances Manufacturers Association (CEAMA)

The Consumer Electronics and Appliances Manufacturers Association (CEAMA), established in 1978, is a leading industry body representing the consumer electronics and home appliances sector across India. As a non-profit organization, CEAMA works to enhance the growth and development of the industry by fostering healthy competition, interacting with the government on policy matters, and providing training and consultancy services. The association's membership includes a wide range of companies producing products such as televisions, air conditioners, washing machines, and small appliances. CEAMA's primary focus is on creating value for the consumer electronics and appliances industry through sustainable engagement with various stakeholders. It acts as a liaison between the industry and the government, advocating for policies that promote sector growth. CEAMA also emphasizes the importance of environmental sustainability, energy efficiency, and waste management, playing a pivotal role in addressing industry challenges through strategic collaborations and partnerships.

Finovista

Finovista is a New Delhi based consulting agency, specializing in Technical Assistance, Program Management, Capacity Building, and In-country Representation in key development sectors. Our expertise lies in sectors crucial to sustainability and global development, including climate change, energy, clean cooking, agriculture, rural technologies, advanced manufacturing, and climate finance. With a strong commitment to delivering innovative solutions and driving positive change, we have a proven track record of successful program management and implementation. Our extensive partnerships extend to Development Agencies, Governments, Universities, Business Chambers, Corporates, Startups, and SMEs.