



# MODERN ENERGY COOKING **FORUM 2023** **INDIA**

Nov 3<sup>rd</sup>, 2023 - New Delhi



## About Modern Energy Forum 2023 India

Modern Energy Cooking Forum India 2023, was organised by the Modern Energy Cooking Services (MECS) Programme, through its In-country partner - India, Finovista and supported by the Office of the Principal Scientific Adviser to the Government of India, International Solar Alliance (ISA), Power Foundation of India (PFI) and Energy Efficiency Services Ltd (EESL). The Forum established in 2022 which aims to intensify the cooperation amongst the stakeholders from both the public and private sectors in the areas of modern energy for clean cooking by offering them a platform to promote dialogue and exchange ideas to leverage investment in renewable energies, particularly electricity access, to address the clean cooking challenge. The Second Modern Energy Cooking Forum 2023 was structured to review the state of progress and brought leading thinkers together for panel discussions under multiple domains of Policy, Supply Chain, Consumer, Engaging Women, and mobilize Finance to enable the transition to modern energy based clean cooking in India.

## Overview Of MECS Programme in India

MECS Programme is a UK Government (FCDO) funded global research programme led by Loughborough University. 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 grow 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 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.

## Research to Support Policy

- Mapping Indian cooking culture and investigating the feasibility of cooking Indian cuisine on energy-efficient electric cooking devices. Assessing the impact on efficiency, cost and time, leading to the publication of the India eCookbook .
- Field Trials in 14 Indian households across Delhi & Pune for In-depth exploration of cooking with Electricity to assess 100% Cooking with Electricity.
- Working with NIAS on research for “Assessing Energy Transition in the Residential Cooking Sector in India”.
- Market Access & Capacity building for Indian Manufacturers in Clean Cooking. 1st Entrepreneurship Development Programme in Clean Cooking (EDP CC) to nurture and scale up the start-ups and innovators in electric and solar cooking.
- Supporting Indian Innovative solutions, that succeeded in the Global Leap Awards for EPC for a Pune-based Start-Up.
- Working on a deployment project for large-scale commercial pilots for electric cooking using energy-efficient devices like electric pressure cookers and supporting them through funding, technology Identification and manufacturer connects.
- Cook Clean Pitch Green 2023– An Initiative to connect Clean Cooking innovators and entrepreneurs with investors to mobilise private capital in Clean Cooking.
- 2 National-level exhibitions for Modern energy cooking technologies and multiple technology demonstration activities at State Level.

## Livelihood Creation through Electric Cooking

Supported the 12th & 13'th National Street Food Festival in 2023 organised by NASVI, for live 3 Day trials of electric cooking devices. The vendors were supported through devices and suitable utensils and training on cooking with electricity. Supporting the training of Anganwadi workers in Kerala for cooking with electricity and use of efficient clean cooking devices like the electric pressure cookers.

## Platforms for Promotion of Modern energy based Clean cooking Technologies

- Talk Series on Transition to Modern Energy in Cooking” – A first-of-its-kind, India-led global platform to engage with stakeholders on key issues in transitioning towards modern energy for cooking. After the successful completion of 24 sessions in Phase I and Phase II of the Talk Series, recently stepped into Phase III of the Talk Series.
- Modern Energy Cooking Forum 2022 & 2023.
- National & State level workshops for the promotion and awareness creation of Modern energy based clean cooking.

# Glimpse of Modern Energy Cooking Forum 2023



# Agenda of the Forum



## Registration with Networking Tea

09:30 – 10:00

## Inaugural Session

10:00 – 10:55

### Welcome and Opening Remarks

Dr Nick Rousseau, International Liaison Manager, MECS Programme

### Special Remarks

- Mr Abhay Bakre, Director General, Bureau of Energy Efficiency (BEE)
- Mr Vishal Kapoor, CEO, Energy Efficiency Services Ltd (EESL)
- Mr Gaya Prasad, Deputy Director General (RH), Pradhan Mantri Awaas Yojana - Gramin (PMAY-G), Ministry of Rural Development (MoRD), Govt of India
- Mr Raj Pal, Senior Advisor, Power Foundation of India (PFI)

### Special Address & Vote of Thanks

Dr Sanjay Kumar, Deputy Secretary General, Climate Parliament, and Former Director General of Forests and Special Secretary to the Govt of India



## Clean Cooking- Technology Walkthrough & Tea Break

10:55 – 11:25

## Highlights of the MECS Programme– Global and India

11:25 – 11:45

- Dr Nick Rousseau, International Liaison Manager, MECS Programme
- Mr Vimal Kumar, MECS India Lead & Cofounder, Finovista

## Panel Discussion: Role of Policy in promoting eCooking

11:45 – 12:30

### Session Chair: - Dr Debajit Palit, Professor, NTPC School of Business

Discussion on lessons from the successful promotion of other clean cooking solutions in India and policy recourse for supporting taking up of eCooking, going forward.

#### Panelists:

- Mr PC Sharma, Joint Director, International Solar Alliance (ISA)
- Mr. Manish Kumar Pandey, National Coordinator, UNDP-GEF-Small Grants Programmes, TERI.
- Prof Jyoti Parikh, Executive Director, Integrated Research and Action for Development (IRADe)
- Mr Krishna Kumar Sinha, Advisor Finovista & Former Industrial Advisor, Department of Industrial Policy and Promotion (DIPP), Govt of India

# Agenda of the Forum

## Panel Discussion: Gaps in Supply Chain for the Clean Cooking Sector

12:30 – 13:15

Session Chair: Dr Nick Rousseau, International Liaison Manager, MECS Programme

Discussing the current Challenges for the supply chain of devices and solutions and suggestions to enable an effective and agile downstream supply chain

### Panelists:

- Mr Animesh Mishra, Chief General Manager, Energy Efficiency Services Ltd (EESL)
- Dr Umish Srivastava, Executive Director, Indian Oil Corporation Ltd (IOCL)
- Mr Chandru Kalro, Managing Director, TTK Prestige
- Ms Meredith Muthoni Njenga, Head of Electric Finance, BURN Manufacturing

## Lunch

13:15 – 14:00

## Panel Discussion: Bringing Women at the center stage in the clean cooking sector

14:00 – 14:45

Session Chair : Ms Sheetal Rastogi, Cofounder, Finovista

Discussion on key aspects of engaging Women to accelerate the Transition to Modern Energy for Cooking

### Panelists:

- Dr Tripta Thakur, Director General, National Power Training Institute (NPTI)
- Mr Soumitra Chakraborty, Chief General Manager (Mktg. Strategy), Indian Oil Corporation Ltd (IOCL)
- Mr Soumanil Mukherjee, Consultant, Office of the Principal Scientific Adviser to the Govt. of India
- Ms Akansha Golchha, Lead - Clean Energy Access & Finance, Natural Resources Defense Council (NRDC)

## Launch of WMEC- Women in Modern Energy Cooking

14:45 – 15:00

MECS and FINOVISTA representatives along with the Women Panellists from the preceding session

## Scaling up of Modern Energy Based Cooking Through Demand Aggregation

15:00 – 15:20

- Mr Nitin Bhatt, Deputy General Manager, Energy Efficiency Service Limited (EESL)
- Mr Girja Shankar, General Manager, Energy Efficiency Service Limited (EESL)

Question and Answer Session

# Agenda of the Forum

## Highlights of the Cook Clean | Pitch Green

15:20 – 15:50

### Glimpse of the Investor Pitch Connect Initiative

- Mr Vimal Kumar, MECS India Lead & Cofounder, Finovista
- Ms Pamli Deka, Regional Coordinator South Asia, Private Financing Advisory Network (PFAN)

## Panel Discussion: Unlocking Investments in the Modern energy based Clean Cooking Sector

15:50 – 16:40

### Session Chair : Mr Deepak Gupta, Senior Vice President, Carbon Business, ReNew

Discussion on opportunities and challenges for Investing in the Clean Cooking Sector

#### Panellist:

- Ms Pamli Deka, Regional Coordinator South Asia, Private Financing Advisory Network (PFAN)
- Mr Vimal Kumar, MECS India Lead & Cofounder, Finovista
- Ms Meredith Muthoni Njenga, Head of Electric Finance, BURN Manufacturing
- Mr Hemanth Kumar, Director, International Copper Association India

## Sum up & Next steps

16:40 – 17:00

- Mr Krishna Kumar Sinha, Advisor Finovista & Former Industrial Advisor, Department of Industrial Policy and Promotion (DIPP), Govt of India
- Dr Nick Rousseau, International Liaison Manager, MECS Programme
- Ms Sheetal Rastogi, Cofounder, Finovista



Networking Tea

17:00 Onwards

Exhibition (0930 – 1700)

# EXECUTIVE SUMMARY

The second edition of the Modern Energy Cooking Forum (MECF) established by Modern Energy Cooking Services (MECS) Programme, through its In-country partner - India, Finovista to make available a dynamic platform for all stakeholders engaged in shaping the future of clean cooking in India, was organised on November 3, 2023 in New Delhi. India, has already invested substantially in addressing challenges arising from the use of biomass and other unclean fuels in cooking. The Government of India has also shown its willingness to explore new solutions and enable the transition to Modern energy cooking solutions, and with this objective has also launched, landmark initiatives like the GoElectric and Mission LiFE (Lifestyle for Environment) campaigns. Further, the recently launched National Efficient Cooking Programme (NECP) by EESL under Ministry of Power, can be seen as a strong endorsement to this commitment.

## Inaugural Session

The Inaugural Session highlighted the ongoing initiatives in India in the modern and clean cooking sector and also about programmes implemented by different ministries and industries which support the promotion of clean cooking in India. During the session, the delegates were informed about a global initiative called the Global Electric Cooking Coalition (GeCCo), representing a working group of partners that has been initiated to provide a platform for engagement to unify work, avoid duplication and optimise output quality to accelerate global transitions. Emphasis was also given on the need for shifting to eCooking to reduce dependence on imports of LPG and also to protect the health of women and girls in rural areas. Also, EESL's plan to distribute 20 lakh induction cookstoves nationwide was also discussed stating the importance of aggregation of demand helping in driving down prices of induction cookstoves to make it affordable. Brief discussion was also held where manufacturers were asked to develop affordable cooking devices to enable integrating it with the scheme of Pradhan Mantri Awaas Yojna- Gramin (PMAY-G). There is a high willingness to shift to electric cooking, however, there are certain barriers that needs to be addressed.

## Session on “MECS Programme’s Highlights”

This session comprised of multi-dimensional approach adopted by MECS in India towards promoting clean cooking initiatives addressing policy, supply chain, and consumer aspects. These efforts involved various data-driven strategies and collaborations across the ecosystem. Also, at the policy level, extensive work was undertaken, including engagements with state governments like Uttar Pradesh, Kerala, Bihar, and Punjab. Brief insights into Nepal and Kenya strategic approach towards e-cooking, and their roadmap until 2030 were also provided during the session.



# EXECUTIVE SUMMARY

## **Session on “Role of Policy in promoting eCooking”**

In the session emphasis was given on the need for a strategic shift in policies regarding the promotion of electric cooking. Few solutions were floated considering electric cooking not just for a cleaner kitchen, but rather from an energy security perspective. Some policy interventions were discussed to encourage electric cooking included solar-based electric cooking, upgrading electrical distribution infrastructure, and other aspects such as financing mechanisms, the delivery model, and strategies for promoting the concept.

## **Session on “Gaps in Supply Chain for the Clean Cooking Sector”**

During the session the discussion evolved around that the supply chain for induction cooking products is adequately established, there are barriers hindering its widespread adoption. They advocated for a government subsidy programme for electric cooking devices, acknowledging that its success might hinge on India's reduced reliance on grids in the coming decade. The representative of Burn Engineering shared insights from their extensive experience of distributing more than 4 million stoves across over 20 countries in Africa.

## **Session on “Bringing Women at the center stage in the clean cooking sector”**

In the session the participating experts underscored the need to empower women with clean cooking options, particularly in rural areas, aligning with initiatives promoting green energy and clean cooking. They called for collective efforts to provide better cooking facilities, where women can emerge as leaders in designing and implementing solutions to enhance cooking experiences and promote sustainable living practices.

## **Launch of WMEC- Women in Modern Energy Cooking**

MECS and Finovista representatives along with the Women Panellists from the preceding session were present to announce launching of WMEC with the aim to offer new pathways for women's economic empowerment, providing opportunities for women entrepreneurs to contribute to the clean cooking sector.

# EXECUTIVE SUMMARY

## Session on “Scaling up of Modern Energy Based Cooking Through Demand Aggregation”

During the session, the panellists explained their holistic strategy focusing on various crucial aspects to promote clean cooking solutions and ensure their widespread availability. The representatives highlighted the importance of offering a comprehensive product range to meet various kitchen needs efficiently with the aim to provide better and more tailored solutions to improve cooking practices across different households. They also suggested collaborative efforts with state SDAs, SRLMs, SEWA, NGOs, and other essential partners.

## Session on “Highlights of the Cook Clean | Pitch Green”

The panellists during the session highlighted the objective of Cook Clean | Pitch Green and stated that its agenda is to explore how equity and commercial funding can play pivotal roles in advancing these organisations and contributing to the energy transition journey. PFAN also assured to maintain continued engagement with the companies being mentored beyond the pitch day, emphasizing the long-term nature of the funding process rather than immediate fundraising.

## Session on “Unlocking Investments in the Modern energy based Clean Cooking Sector”

The experts during the session shared and discussed several innovative financing approaches to make electric cookstoves more affordable, especially given their higher cost, further emphasising the need for greater involvement of development finance and public institutions in the carbon market segment.

## Session on “Sum up & Next steps”

This session accounted for the significant shift from seeking evidence to convince people about the benefits of clean cooking to the current focus on implementation strategies and overcoming associated challenges. The speakers agreed that a partnership based approach to address the issues and challenges in transition to clean cooking in India is crucial.

# Inauguration panel for Forum 2023

## Welcome and Opening Remark

### Dr Nick Rousseau

In 2019, when MECS started its work in India, through its In-country partner Finovista, there were major concerns around the viability of eCooking. The work under the programme has enabled a paradigm shift, and now, people are convinced that India needs to transition to modern fuels for cooking. India is now looking for solutions and interventions to scale up eCooking, and this transformation demonstrates the progress that, India has been making toward a sustainable clean cooking future.

### Dr Simon Batchelor

It is vital to bring novel ideas together so that different parts of the globe can have better access to energy, also working together can yield better results than working separately. A plan should be initiated where all aspects of innovation are combined to create a more inclusive and modern energy approach that includes better ways of cooking. Also, because of various technologies included in clean cooking and agreements signed between countries, now the value of carbon credits for e-cooking is about \$25 per ton. This is great for people buying these electric stoves because this can get help to pay for them initially, but also they might even get money back over five years from the carbon credits. Participation of Private sector also plays a key role in fostering supply chains essential for an e-cooking revolution.



## Special Remark

### Mr Abhay Bakre

eCooking is vital in the current landscape where most households are electrified and India is moving towards energy transition. Two years back GoI launched Go Electric initiative stating the significance of e-cooking as part of a sequential solution strategy. This directional shift from fuel-based cooking to more efficient energy technology signifies a key approach in the ongoing discourse on energy transition. The transition to electric cooking presents a win-win situation, boosting electricity demand while also reducing reliance on fuel-based methods. India's goal to increase electrification on the consumption side from the current 21% to around 25% in the next few years, aiming for 27-28% by 2030, in line with the global average of about 23-24% electrification in terms of demand-side electricity use. This assessment outlines the potential for electric cooking to play a pivotal role in India's energy transition journey.

### Mr Vishal Kapoor

The energy efficiency of electric stoves, estimated to be around 30 to 35 percent higher than traditional cooking methods, and coupled with its cost-effectiveness could be a game changer. Price signals and incentives are key in facilitating consumer adoption of electric cooking. Targeting the right consumer demographic becomes crucial, particularly focusing on those with around 1 kilowatt connections, as they represent the majority and can readily shift to electric cooking, thereby aiding climate efforts and reducing cooking expenses. Collaborative endeavours between the government, EESL, MECS, and various organisations dedicated to promoting electric cooking hold immense potential to revolutionize the cooking sector, notably decreasing indoor air pollution, especially with induction cooking. EESL has taken a significant step forward by committing to distribute around 20 lakh induction cookstoves, aiming for widespread adoption through demand aggregation and other initiatives.

# Inauguration panel for Forum 2023

## Special Remark

### Mr Gaya Prasad

Identifying themselves as consumers awaiting suitable products, he highlighted the Ministry's role in implementing schemes benefiting rural areas, including Approximately 25 million houses that will be benefited through initiatives like Pradhan Mantri Awas Yojana Gramin (PMAYG) by March 2024. The Ministry along with various governmental bodies has extensively worked to provide electricity, gas, water connections, and other essential benefits to rural beneficiaries, acknowledging discussions within NITI Aayog regarding the potential of solar-based cooking systems. Also, there is a disparity between financial support offered for house construction and the lack of loan facilities for solar-based cooking appliances, the implementation of subsidized loan programmes in collaboration with the Ministry of Finance and allied ministries can play a crucial role.

### Mr Raj Pal

The Power Foundation of India, which operates under the Ministry of Power, serve as a leading policy advocacy body, engaging in national dialogues and providing authentic data, policy recommendations, and practical solutions to drive energy transition in the nation. Renewable energy sector in India is well known. Due to limited domestic availability of oil and gas, India has selected rapid expansion of renewable energy as an important strategy both for its energy transition and improving its energy security. Distributed renewable energy could be a cost effective solution increasing electricity access in rural and far flung areas. Global average of distributed solar energy is about 40% whereas in India its only 15% with a lot of scope of improvement in solar energy in India. Therefore, India must focus on the necessity for a more transformative shift to meet its economic and environmental objectives.

## Special Address & Vote of Thanks

### Dr Sanjay Kumar

He stressed the urgent need for a safer cooking method, advocating for electric cooking as a pivotal solution. Further he underscored the issue of cost as a major obstacle, acknowledging the high expense involved in adopting electric cooking methods and suggesting the need for cost reduction strategies, aligning with the concerns of industry representatives present. He highlighted the importance of understanding that consumers, not just in India but globally, are highly conscious of costs.

He explained that Apple focused on specific market strategy targeting special segment of people for selling their iPhones, similar strategies could be explored for selling electric cooking ranges, focusing on specific market segments that can afford higher-priced options, thereby indirectly influencing the adoption of mid-range products with comparable performance.

He also proposed segmenting the market to make electric cooking more exclusive for a specific segment capable of affording it, while simultaneously addressing the mass market through different strategies involving subsidization, aggregation, and scaling efforts. Additionally, he raised the idea of establishing a special tariff arrangement, possibly a lifeline tariff, for consumers purchasing electric cookers, granting them a specified allocation of subsidized electricity to incentivize adoption and usage of electric cookers.

# Highlights of the MECS Programme– Global and India

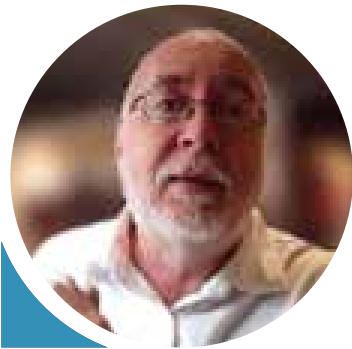
## Global

- In recent years MECS has observed successful implementation of e-cooking strategies in national policy across the globe and there is a significant shift towards e-cooking observed in African and Asian countries.
- There is enhanced potential and business viability of Kenya in the e-cooking domain with a substantial percentage of households and institutions now connected to electricity, either through national grids or off-grid solutions.
- Nepal's commitment to utilizing electricity as the primary cooking fuel for 25% of households by 2030 reflects a concerted effort beyond the mere adoption of cooking devices, aiming for substantial usage transformation.
- The Nepal government's measures, such as reducing import taxes on induction stoves and lowering electricity tariffs in 2021 to encourage e-cooking adoption, signal a conducive environment for companies offering such solutions.
- Nepal's off-grid systems, largely hydro-powered, facilitate night cooking without the need for storage, reducing capital costs.
- A global initiative called the Global Electric Cooking Coalition (GeCCo), aiming to unite e-cooking advocates and accelerate global energy transitions.
- GeCCo's is being launched at COP28, focusing on electrifying cooking as a crucial step towards achieving net-zero emissions.

## India

- MECS in India has adopted the multi-dimensional approach towards promoting clean cooking initiatives addressing policy, supply chain, and consumer aspects.
- These efforts involved various data-driven strategies and collaborations across the eco-system.
- To amplify awareness and engagement, several platforms were utilized, including a monthly talk series and an interactive WhatsApp group fostering bilateral communication.
- The annual Forum, a significant milestone, witnessed expanded partnerships with the Government of India agencies.
- At the policy level, extensive work was undertaken, including engagements with state governments like Uttar Pradesh, Kerala, Bihar, and Punjab. Notably, in Kerala, initiatives such as the Anganwadi concept, integrating electric cooking into their system framework, was also a notable initiative.

## Speaker's Bite



### Dr Simon Batchelor

UK Research and Innovation  
Co-ordinator, Gamos Ltd.,  
Loughborough University

India has taken several commendable initiatives in recent years like Go Electric campaign, star ratings for induction stoves for the promotion of clean cooking which has the potential to transform the clean cooking landscape in the country with a positive impact on well-being of the people.



### Mr Abhay Bakre

Director General, Bureau of  
Energy Efficiency (BEE)

Once India achieves over 30% electrification of energy utilization by 2035, as planned, this would signify a significant step toward attaining a developed country status. This shift would reflect a substantial transformation across households, commercial sectors, mobility, and industries, embracing more manageable, efficient, and cleaner technologies, aligning with climate-friendly practices.



### Mr Vishal Kapoor

CEO, Energy Efficiency  
Services Ltd (EESL)

The transition to electric cooking is positioned as a catalyst for a sustainable future and, a more efficient tomorrow, thus acknowledging that each induction cookstove adoption contributes to this larger goal.



### Mr Gaya Prasad

Deputy Director General (RH),  
Pradhan Mantri Awaas Yojana -  
Gramin(PMAY-G), Ministry of Rural  
Development (MoRD), Govt of India

While the necessity for transition to clean cooking is established, there is a need to develop clean cooking solutions at an affordable cost to enable the Ministry to undertake pilot projects, particularly in rural areas, for housing with clean cooking provision or similar initiatives effectively.



### Mr Raj Pal

Senior Advisor, Power  
Foundation of India (PFI)

Distributed renewable energy is one of the cost-effective solutions as against a centralized generation source, especially in rural and remote areas where electricity access remains limited.



### Dr Sanjay Kumar

Deputy Secretary General, Climate  
Parliament, and Former Director  
General of Forests and Special  
Secretary to the Govt of India.

There is a need for a forum of regulators, to facilitate cross-country knowledge exchange enabling the sharing of best practices in determining tariff structures suited for diverse regions within India and globally.

## Speaker's Bite



### Prof Jyoti Parikh

Executive Director, Integrated Research and Action for Development (IRADe)

**It is important to consider gender empowerment in the discussion on cooking solutions as it will offer them income-generation opportunities as business owners and entrepreneurs at the center of the clean cookstoves value chain.**



### Mr. Manish Kumar Pandey

National Coordinator, UNDP-GEF-Small Grants Programmes, TERI

**Even with attractive financial incentives and sophisticated designs, user discomfort could slow the adoption of clean cooking technologies.**



### Dr Umish Srivastava

Executive Director, Indian Oil Corporation Ltd (IOCL)

**Indian Oil's innovative product, Surya Nutan, designed with inherent storage capabilities enables the device to function even during power outages, catering to even rural and semi-urban areas.**



### Mr PC Sharma

Joint Director, International Solar Alliance (ISA)

**The two most common and crucial hurdles for any technology are the cost of technology and access to finance and all efforts should be made for overcoming the same.**



### Dr Debajit Palit

Professor, NTPC School of Business

**The hindrance to widespread electric cooking adoption centered on the capacity of electricity distribution infrastructure to accommodate increased power demand during specific times, especially in the evenings.**



### Ms Meredith Muthoni Njenga

Head of Electric Finance, BURN Manufacturing

**To drive the adoption of electric cooking in Africa, two ways approach i.e. advocating for special tariffs for cooking purposes and implementing a robust change management strategy through an efficient distribution network, significantly contributed to successful adoption.**

## Speaker's Bite



### Mr Chandru Kalro

Managing Director,  
TTK Prestige

**The faster adoption of clean cooking technology could be achieved through the up gradation of infrastructure, redistribution of subsidies, and targeted subsidy schemes.**



### Mr Krishna Kumar Sinha

Advisor Finovista & Former Industrial Advisor, Department of Industrial Policy and Promotion (DIPP), Govt of India.

**While eCooking device affordability is an important factor for adoption of clean cooking technology, it is equally important to strengthen the electrical infrastructure including grid-scale battery storage to enable it to take the additional load coming from eCooking and eMobility.**



### Mr Animesh Mishra

Chief General Manager, Energy Efficiency Services Ltd (EESL).

**Strategic planning and promotional efforts hold great importance to drive market dynamics in the clean cooking sector.**



### Dr Tripta Thakur

Director General, National Power Training Institute (NPTI)

**The transformative potential of clean cooking is not restricted to empowering women but also addressing critical issues such as energy security and environmental sustainability.**



### Ms Sheetal Rastogi

Cofounder, Finovista

**Initiative like Women in Modern Energy Cooking envisions a digital platform, industry collaborations, capacity-building endeavors, and networking opportunities to propel women's participation and leadership in the clean cooking domain.**



### Mr Soumitra Chakraborty

Chief General Manager (Mktg. Strategy) Indian Oil Corporation Ltd (IOCL)

**The push for greater female involvement could transform various sectors, leveraging women's innate qualities of integrity and honesty to enhance safety and productivity.**



## Speaker's Bite



### Mr Soumanil Mukherjee

Consultant, Office of the Principal Scientific Adviser to the Govt. of India

**There is a need for research to explore India's abundant natural resources for developing more eco-friendly biofuel cooking alternatives, highlighting the importance of harnessing indigenous resources for sustainable solutions.**



### Ms Akansha Golchha

Lead - Clean Energy Access & Finance, Natural Resources Defense Council (NRDC)

**The focus should be given on empowering rural women to adopt clean technologies, with clean cooking as a pivotal component.**



### Dr Nick Rousseau

International Liaison Manager, MECS Programme

**There is a need to conduct baseline studies and develop a national e-cooking strategy.**



### Ms Pamli Deka

Regional Coordinator South Asia, Private Financing Advisory Network (PFAN)

**There is substantial need for funding during the initial stage of Research and Development (R&D) in the clean cooking sector.**



### Mr Vimal Kumar

MECS India Lead & Cofounder, Finovista

**Sustainable business models can be helpful for long-term viability and could be pivotal in attracting finance.**



### Mr Hemanth Kumar

Director, International Copper Association India

**To achieve net zero objectives focus should be on solar rooftop systems integrated with electric cooking, particularly in rural and urban areas.**

# Session 1: Role of Policy in promoting eCooking

## Objectives

The session aimed at discussions centred around policies to promote modern fuels for cooking and scaling up eCooking. The panellists aimed at sharing their views and suggestions on:

- Strategy for transitioning to modern fuels for cooking? What could be the right mix?
- Given the state of electricity access in urban and rural areas, what is the best approach to scale up eCooking
- Regulatory frameworks needed to encourage mass adoption of eCooking
- Can the current LPG subsidies be utilised to make eCooking more affordable for end users?



## Discussion Highlights

- Few years back in Rajasthan and Chhattisgarh, under an initiative induction cookers were provided to women. The observation showed enthusiasm, especially in households transitioning from biomass to electricity. This is due to the existing electricity infrastructure and its supply availability in most households, given the government's goal of near-universal electrification provides a platform for this transition.
- The results from the initiative also showed an element of ease in adapting to new cooking methods, drawing from experiences where women readily embraced induction cookers within a month, displaying their adaptability and willingness to clean cooking solutions.
- A substantial shift to 100% electric cooking will be a slow process, even in areas with relatively reliable power supply and there is urgency of infrastructure readiness to support a mass transition to electric cooking. Despite efforts and expectations set forth by policies such as the draft national energy policy in 2017, emphasizing rural energy electrification, the anticipated movement toward embracing electric cooking did not materialize as envisioned. Thus, a critical challenge lies in ensuring adequate infrastructure electricity supply and distribution to support the widespread adoption of electric cooking.

# Session 1: Role of Policy in promoting eCooking

- The imperative for a shift towards electric clean cooking must emphasize the necessity for power derived from renewable sources rather than coal or gas. Further to encourage, Solar based electric cooking, there needs to be a clear policy-based intervention.
- A substantial portion (around 30%) of cooking could potentially transition to electric devices, but it is necessary to create greater awareness among the masses and capacity-building among stakeholders involved in deploying these technologies. There is a need for a behavioral shift among beneficiaries to successfully promote electric cooking.
- The cost of the device itself is not a significant obstacle, obtaining microfinance to acquire electric cooking devices should not pose a substantial challenge for individuals. Women-led self-help groups should be engaged to facilitate the channeling of finances toward addressing mass-level clean cooking initiatives. There is evidence to support a higher recovery rate of micro-finances associated with women-led self-help groups.
- There is a potential role of carbon credits in driving change in the clean cooking sector. This could be leveraged for price reduction of devices, enabling widespread adoption of clean cooking technologies and initiatives.
- Research and development (R&D) will play a key role in addressing clean cooking challenges. India's diverse cooking culture, and socio-economic disparities, necessitated the development of solutions, which would address this. The role of private sector is indispensable in driving clean cooking initiatives forward, also their involvement is critical for R&D, successful implementation and expansion of clean cooking programmes.
- India has the potential to drive the global clean cooking transition. Leveraging India's diverse state experiences, can serve as a crucial learning ground for nearly 30 countries. The various business models and insights derived from this collective experience can be disseminated across International Solar Alliance (ISA) member countries through the UN Office of South-South Cooperation.

# Session 2: Panel Discussion: Gaps in Supply Chain for the Clean Cooking Sector

## Objectives

The panel discussion focussed on the current challenges and the gaps in the supply chain of eCooking devices and solutions to consumers. The discussion centred around:

- Domestic market opportunities and effective distribution models.
- Need for focussed policy requirements for strengthening the components manufacturing ecosystem including skill development for promotion of local manufacturing.
- Standards development and labelling
- Policy initiatives like PLI Scheme, Tax, and tariff concessions/regimes etc.
- After Sales and Service Support with a focus on regional requirements



## Discussion Highlights

- Consumer acceptance plays a crucial role in understanding the adoption of electric cooking technologies. The challenge while cooking with electricity lies in the perception and cultural attachment to the visual presence of a flame in the kitchen. One of the key barriers for eCooking is the existing electric infrastructure within households. The wiring struggles to sustain higher wattage appliances, thereby necessitating upgrades to accommodate modern electric cooking devices alongside other standard appliances like geysers and irons.
- When it comes to cost for eCooking, Capital expenditure (CAPEX) and operational expenses (OPEX), are not major concerns. CAPEX for an induction cook top is reasonable, and in terms of OPEX, even with the removal of LPG subsidies or the absence of electricity subsidies, operational costs are lower. However, for Solar based eCooking, the high cost of Solar panels is a concern, and the same is for battery storage aspect.

## Session 2: Panel Discussion: Gaps in Supply Chain for the Clean Cooking Sector

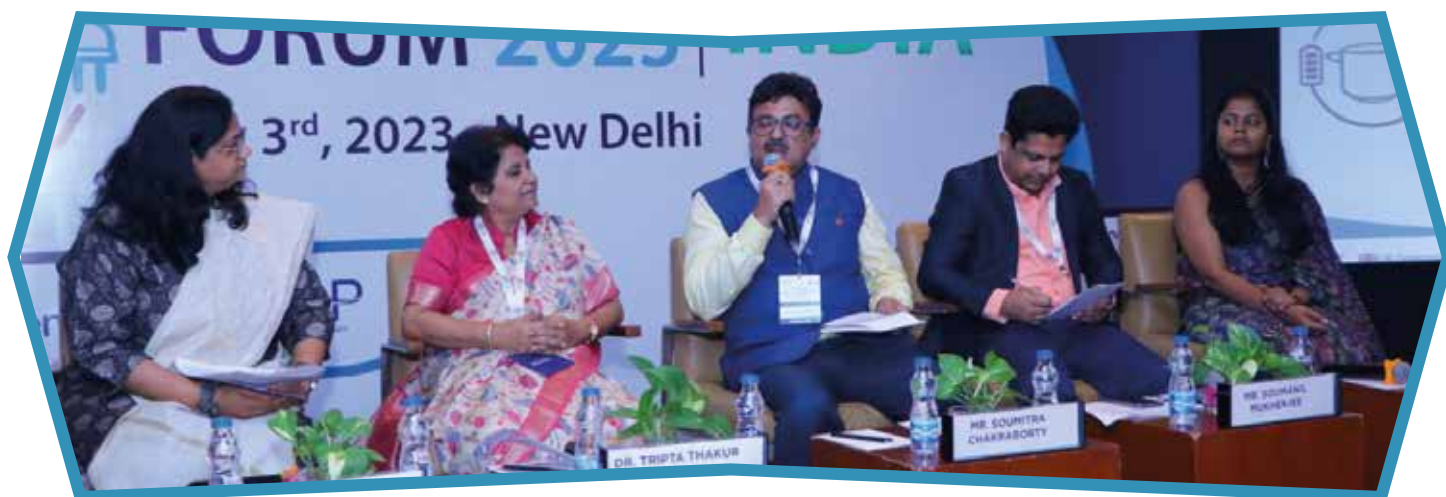
- Demand Aggregation is important intervention for a widespread adoption of eCooking, however there are concern relating to after sales service and support, which need to be addressed, especially for small & remote regions where setting up these service related infrastructure may be costly and unviable to companies.
- Policy changes are significant to establish special tariffs dedicated solely to cooking purposes. For faster adoption of ecooking devices, Government could think of splitting the subsidies between LPG and induction cookstoves. Also, by implementing specialized tariffs and employing metered or IoT-enabled electric stoves, consumers with smart meter devices can track their energy consumption specifically for cooking and benefit from reduced tariffs fixed exclusively for cooking needs.
- The other key factor for faster adoption of induction cookstoves is building robust distribution network to cater the change. On similar line, BURN has B to C distribution network having more than 1500 sales agents doing door to door delivery. There is an entire chain of distribution where the customers are approached, devices are installed and post installation a small training is provided to the customers for easy handling and after that the customers are handed to after sales team which caters issues regarding device.

# Session 3: Bringing Women at the center stage in the clean cooking sector

## Objectives

The session aimed at discussing the critical role women can play in achieving universal access to clean cooking with an enabling and user-centric environment to support a robust and sustainable clean cooking industry. The discussion points focussed on:

- The critical role of women in achieving universal access to clean cooking.
- Successful models of engaging women in the clean cooking and energy access sectors.
- Current barriers and how can they be addressed.



## Discussion Highlights

- The session started with the launch of “Women in Modern Energy Cooking (WMEC)”, and initiative that seeks to amplify women’s voices, foster innovation through knowledge sharing, enhance access to finance, and create business opportunities, thereby advancing gender equity, economic empowerment, and the adoption of clean cooking technologies both in India and globally.
- Engaging women, is at the heart of empowering them to make an informed choice of the clean cooking solutions particularly in rural areas. This also aligns with initiatives promoting green energy and clean cooking. In rural areas Leveraging the village panchayats, could be effective especially in making communication impact full in rural areas and reaching out to the women.
- In India many large energy companies, have in place successful models of engaging local woman in the day to day activities of distribution and awareness creation. IOCL have a bottling plant in Leh, which is the highest bottling plant in Asia and there all the line employees are women from the local communities. It is remarkable to observe that in Leh bottling plant there is no accident/mishappening reported in the last 20 years. This is all because women there tend to work with great vigilance and employing women in any organisation brings sincerity.

## Session 3: Bringing Women at the center stage in the clean cooking sector

- It is crucial to leverage the talents existing in rural communities, advocating for collaborative efforts among stakeholders including original equipment manufacturers (OEMs), manufacturers, skill development institutions, and organisations like the National Power Training Institute (NPTI) to facilitate training, reskilling, and up skilling of rural women in clean cooking technologies.
- Innovative financial models could be a viable solution to make clean technologies more accessible and affordable for rural communities.

# Session 4: Unlocking Investments in the Modern energy based Clean Cooking Sector

## Objectives

The discussion aimed at understanding how to mainstream eCooking from the aspect of unlocking the investments for this sector, and mobilizing the private capital. The discussion focused upon:

- Development of responsible carbon markets for the clean cooking sector by eliminating the barriers.
- Identifying and assessing funding risks in clean cooking market and measures to mitigate the risks.
- Need to look at the clean cooking financing solution from the angle of its profound social, health and economic benefits and not just as an environmental or business issue.
- Mobilising Private Finance for clean cooking sector.



## Discussion Highlights

- Traditionally, clean cooking companies relied on grants and subsidies, and there is a need to transition towards sustainable business models for long-term viability and to attract finance that aligns with these models. However, commercial funders might not actively engage during R&D due to the low potential for immediate returns on investment. Therefore, developmental financing and grants play a key role in supporting the R&D phase.
- Educating investors about emerging technologies, their potential benefits, and viable solutions within the adaptation space is important. There is a substantial gap in awareness of potential investors in this segment and may be seen as a barrier to mobilise private capital in this sector. PFAN and similar organisations play a crucial role in enlightening investors about various financial models, such as carbon financing and future revenue-based models prevalent in the clean cooking sector.
- There is an untapped potential in providing financial support to consumers for purchasing products, stating that while individuals often utilize finance for high-end gadgets or vehicles, there exists an underserved market for financing lower-priced items, such as cooking devices, particularly among lower-income individuals.



## Session 4: Unlocking Investments in the Modern energy based Clean Cooking Sector

- **Pay-as-you-cook financing model has been introduced in induction cooktops where customers pay a modest deposit and make weekly payments for under a year, ultimately owning the system.**
- **Carbon finance can play a vital role, in financing clean cooking projects. Further, by using new metered technologies devices, the tracking of energy usage and carbon offsets can be enabled. However, there are concerns regarding the sustainability of carbon revenues, thus, cautioning against overreliance on them as a sole business model. Also, there are uncertainties surrounding the future trajectory of the carbon market and the ethical considerations involved play a crucial role.**
- **Integrating the available support under the various government schemes should be focused upon to make these new clean cooking technologies more affordable, and accessible to all. A good example would be integrating the Solar rooftops with eCooking and garnering the existing support available under the Solar rooftop schemes to be leveraged for clean cooking. Moreover, various other rural subsidies provided through government programmes such as those for SC/ST communities could also be integrated to enhance the viability of the program.**

# Special sessions: Scaling up of Modern Energy Based Cooking through Demand Aggregation

- EESL's exploring solar-based clean cooking programmes offering a comprehensive product range to meet various kitchen needs efficiently. EESL's immediate plan involves distributing 3000 cookstoves to Anganwadi workers in the first half. In the latter part, they will be conducting sessions where manufacturers will demonstrate the ease of using these cookstoves. The initial 20,000 cookstoves serve as a pilot project funded by the state with subsidies and direct procurement. This phase will validate the effectiveness of warranty claims, service reliability, and pricing feasibility.
- Education and training on efficient cooking techniques and diverse cuisines should complement energy-saving awareness.
- Collaborations with NGOs and supporting organisations would be crucial for capacity-building programmes targeting Indian households and users of induction and clean cooking devices.
- EESL intends to partner with state governments to expedite supply and distribution to those facing challenges with LPG cylinder access.



# Special session: Highlights of the Cook Clean | Pitch Green

- **Stressing the importance of equity as a means of raising capital, disparity could be observed between the annual \$10 billion requirement in the clean cooking sector and the significantly lower amount raised through equity, underscoring the immense financial gap. To address this, "Cook Clean, Pitch Green 2023," was launched aiming at supporting entrepreneurs in securing equity funding. Further this programme also aims to bridge the knowledge gap in this sector for the private investors, w.r.t to the overall awareness on the sector potential, available technologies and the impact of the transition on health, environment and economies.**
- **The programme welcomed applications across different stages of business development, encouraging innovation and growth, and received notable interest in grants over equity funding among applicants.**
- **Under the programme, PFAN is actively coaching three diverse companies i.e. AgriVijay, Inclusive Energy, and Simi cookstoves. The objective is to explore how equity and commercial funding can play pivotal roles in advancing these organisations and contributing to the energy transition journey**
- **PFAN intends to maintain continued engagement with these companies beyond the pitch day, emphasizing the long-term nature of the funding process rather than immediate fundraising. This approach aims to support these organisations in their growth trajectory**



# Launch of Women in Modern Energy Cooking (WMEC)

A novel initiative named “Women in Modern Energy Cooking”( WMEC) was launched by Modern energy cooking services programme(MECS) through it’s India In- country partner Finovista, with an aim of enabling a Women driven approach for gender equity In clean cooking sector in India.

This initiative would build and strengthen a community of driven individuals representing corporate organisations, NGOs & local communities, leaders from renewable energy and clean cooking sector, institutions, academia etc. The activities would be managed through a steering group and would focus on Creation of a Digital Platform/s, Capacity Building and entrepreneurship, Market access interventions, Creating knowledge resource creation and sharing, connect with Industry and innovators and enabling access to finance.

WMEC recognises the impact of engaging women and bring them at the heart of enabling the transition to Modern energy based clean cooking. MECS programme through it’s India country partner is looking to collaborate with individuals and organisations to take this initiative forward.



# Exhibition on Modern Energy Cooking Technologies

At the Modern Energy Cooking Forum 2023, a total of eleven (11) enterprises had participated and displayed their devices in the exhibition. The devices which were displayed were:

- Renewable Energy Private Limited- showcased their Induction cooker, which could operate on both solar power and grid power, supported by MMPT technology.
- TTK Prestige presented a range of Induction devices with up to 3200 W power, including one with dual-mode functionality, working on both induction and cooking gas. Prestige also introduced their innovative "Cookcentre," featuring multi-capabilities such as a sauté pan, slow cooker, rice maker, pressure cooker, steamer, food warmer, and yogurt maker.
- IOCL's Indoor Solar Cooking System, popularly known as "Surya Nutan," was another star attraction at the exhibition.
- The US-based Burn Manufacturing also showcased their versatile induction cooker, which had been launched in Africa.
- Aufla who was a Global Leap award winner displayed it's Electric pressure cooker with a customisable menu option.
- Real Flame also showcased their IoT based Induction cookstove.

In addition to solar and induction-based cooking devices, some manufacturers like Inclusive Energy displayed biogas and solar meters. Simi Stove showcased its cooking solutions based on ethanol as an alternative fuel. The exhibition not only attracted the attention of numerous visitors but also demonstrated how innovation could transform the way we cook and consume energy.

# Glimpse of Exhibition on Modern Energy Cooking Technologies



## Sum up & next steps

- There is a significant shift from seeking evidence to convince people about the benefits of clean/electric cooking to the current focus on implementation strategies and overcoming associated challenges.
- There is growing emphasis on incentivizing consumers using electric cooking devices and the efforts towards making affordable cooking solutions accessible to a wider audience.
- There is a valuable learning experience from all involved parties, paving the way for further advancements.
- MECS has holistic approach, considering various interlocking elements necessary for success in the transition.
- Reflecting on the discomfort associated with transitioning, there is still collective commitment evident among invested companies, carbon finance entities, and stakeholders.
- There is emergent need to comprehend challenges, offering informed policy recommendations, while underscoring the pivotal role of gender diversity and the Women in Modern Energy Cooking movement in achieving success, which ultimately rests on the increased adoption of electric cooking by women and men.



# ANNEXURES





## Speakers Profiles – Modern Energy Cooking 2023



### **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 Abhay Bakre**

**Director General, Bureau of Energy Efficiency (BEE)**

Sri Abhay Bakre is the Director General of BEE. He is a Post Graduate (M. Tech.) in Elect. Engineering from IIT, Kharagpur and belongs to 1988 Batch of Indian Railways Electrical Engineering Services. He was associated with Delhi Metro & Kolkata Metro extension projects worked as Joint Development Commissioner in the Ministry of MSME and was Nodal officer for National

Manufacturing Competitiveness Programme. As ED PCRA, Ministry of Petroleum & Natural Gas, he was engaged in petroleum & energy conservation in industry, transport, domestic sector etc. He also worked as Executive Director in the Environment Directorate of Ministry of Railways and was the nodal officer for developing INDC for the Railway sector. He also participated at the transport sector events of COP 21 held in Paris and COP 22 held in Morocco.



### **Mr Vishal Kapoor**

**CEO, Energy Efficiency Services Ltd (EESL)**

Mr Vishal Kapoor is the CEO of Energy Efficiency Services Limited (EESL). With over 24 years of experience he has a proven track record of managing large & diverse teams. At EESL, Mr. Kapoor oversees programmes to enhance India's energy transition and conservation efforts. Before joining EESL, Mr. Kapoor was the Joint Secretary at the Ministry of Power (MoP) for power distribution

and reforms, IT & Cyber Security, OL and social media. Prior to MoP, Mr. Kapoor was the Director at the Research Designs & Standards Organisation (RDSO) under Ministry of Railways (GoI). Mr. Kapoor is a graduate in Mechanical Engineering from Indian Railways Institute of Mechanical & Electrical Engineering with a post-graduate degree in Public Administration from the Lee Kuan Yew School of Public Policy, Singapore.

## Speakers Profiles – Modern Energy Cooking 2023



### Mr Gaya Prasad

Deputy Director General (RH), Pradhan Mantri Awaas Yojana - Gramin (PMAY- G) Ministry of Rural Development (MoRD), Govt of India

Mr Gaya Prasad belongs to the 1996 batch of the Indian Statistical Services (ISS). Since October 2018, he is working as Deputy Director General in the Ministry of Rural Development. Under his present assignment, he is responsible for implementation of Pradhan Mantri Awaas Yojana Gramin (PMAY-G) in the

country, one of the high-budgeted, centrally sponsored schemes of the government. Mr Gaya Prasad has vast experience of more than 20 years of working in the social security, poverty alleviation, and rural development sectors. His significant contribution to the rollout and implementation of Gram Swaraj Abhiyan (GSA) has also been acknowledged by the Hon'ble Minister of Rural Development & Panchayati Raj, Government of India.



### Dr Sanjay Kumar

Honorary Advisor, Climate Parliament, Former Director General of Forests & Special Secretary to the Government of India

Dr. Sanjay Kumar retired as Director General of Forests and Special Secretary to the Government of India. He holds a PhD in Poverty and Rural Livelihoods from the University of Cambridge and has represented India in various global environmental negotiations. Dr Sanjay previously served as Executive Director of the

Climate Parliament, where he pursued the vision of powering the global economy with one hundred percent renewable. In his current role as Deputy Secretary-General, he leads Climate Parliament's global work with the CEO & Investor Council and international collaborations to pursue the objectives of the One Sun Declaration under the Green Grids Initiative - One Sun One World One Grid announced by Hon. Prime Ministers Shri Narendra Modi and Johnson at COP-26 of UNFCCC.



### Mr Vimal Kumar

MECS India Lead & Cofounder, Finovista

Mr Vimal is Co-founder of Finovista, works extensively in the areas of In-country Representation, Programme Management Consulting, Technology Transfer and Capacity Building. He possesses extensive expertise and experience in managing various National, Bilateral and Multilateral programmes and Indo-German GINSEP's Ambassador. At Finovista, he leads prestigious programmes 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 Programmes with Canada, Finland, Israel, Italy, Spain, South Korea, UK etc. Vimal believes in integrating Innovation and Finance for societal development and economic growth.

## Speakers Profiles – Modern Energy Cooking 2023



### Mr Raj Pal

Senior Advisor, Power Foundation of India (PFI)

Mr. Raj Pal is Senior Advisor in Power Foundation of India (PFI). Prior to joining PFI, worked as Policy Advisor in Indo-German Energy Programme of GIZ and Advisor in International Solar Alliance. Mr. Raj Pal was Senior Advisor in Ministry of Power, Government of India. In Ministry of Power he was bureau head responsible for energy efficiency & conservation; training & research; policy planning; and coordination.

He has about 10 years' experience in Power Sector; and more than 34 years of experience of working in different Ministries and Organisations of Government of India as Officer of Indian Economic Service. He superannuated after working at the level of Additional Secretary to the Govt. of India from Ministry of Power on April 2021. He also worked as Advisor (Economic Regulation) in the Telecom Regulatory Authority of India (TRAI) and as Principal Advisor in National Housing Bank. During his tenure at the Ministry of Power, he was government nominee director on the boards of the power sector PSUs and member of the Executive Committees of the National Power Training Institute and Central Power Research Institute. Mr. Raj Pal received Master's degree and M Phil in Economics from Kurukshetra University Kurukshetra (Haryana) and Diploma in Development Studies from Institute of Developing Economies, Tokyo (Japan).



### Ms Sheetal Rastogi

Co-founder, Finovista

Sheetal holds over 15 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 completion 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 Nitin Bhatt

Deputy General Manager, Energy Efficiency Service Limited (EESL)

Mr Bhatt is currently working as Deputy General Manager Public Relations & Sales in EESL and has 19 years of Experience in the Field of Journalism, Mass-communication, Brand Promotion, Public Relations, Advertising , Media Management , Stake Holder Management, Media Strategy , & Teaching. He is also pursuing PhD in Journalism and Mass communication.

## Speakers Profiles – Modern Energy Cooking 2023



### Mr PC Sharma

Joint Director, International Solar Alliance (ISA)

Mr. Sharma is a distinguished professional with an extensive career spanning over three decades and is presently the Joint Director at the International Solar Alliance (ISA). In addition to his current role, Mr. Sharma also serves as the Coordinator for ISA National Focal Points, effectively overseeing activities and collaborations involving all 116 ISA member countries. He plays a crucial role in

supporting the implementation of demonstration projects aimed at benefiting 27 Least Developed Countries (LDCs) and Small Island Developing States (SIDS) within the ISA member countries. His academic accomplishments include a Master's degree in Technology from the NIT, Jamshedpur, India. Mr. Sharma has conducted successful country missions in various ISA member countries, including DR Congo, Malawi, Niger, Uganda, Ethiopia, and Nepal, Cambodia leaving a lasting impact with his expertise.



### Dr Debajit Palit

Professor, NTPC School of Business

Dr. Debajit Palit has more than 26 years of experience working in the domain of renewable energy, clean energy access, rural electrification, distributed generation, micro-grids and energy transition. He is featured in the Top 2% World's Scientists Ranking by Stanford University for the last 4 years in a row. Presently, Dr Palit is a Professor of Energy at the NTPC School of Business, Noida.

He was earlier with The Energy and Resources Institute (TERI), a global research and policy think tank, as a Director & Senior Fellow, and led the Rural Energy & Livelihood Division in TERI for almost a decade. Dr Palit has published 3 books and around 150 research papers in reputed scholarly journals, conference proceedings, books, and magazines. Dr Palit holds a Master's degree in Physics, Post Graduate Diploma in Non-conventional Energy Technology and Ph.D. in Energy Policy.



### Prof Jyoti Parikh

Executive Director, Integrated Research and Action for Development (IRADe)

Dr Jyoti K Parikh, Executive Director and Founding Director of IRADe 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 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.

## Speakers Profiles – Modern Energy Cooking 2023



### Shri Animesh Mishra

Chief General Manager, Energy Efficiency Services Ltd (EESL)

In 2019, Animesh embarked on his illustrious 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 Umish Srivastava

Executive Director, Indian Oil Corporation Ltd (IOCL)

Dr Umish is B.E. in (Mechanical Engineering), M.E. in (Mechanical Engineering) and Ph.D. in Energy Studies from IIT Delhi. He is an IGBC Certified GREEN Accredited Professional. He has 31 years of R&D experience in Indian Oil Corporation Limited. Presently heading Alternate Energy Department comprising of: 1) Solar Energy Research Group

2) Implementing IOC-R&D plans in solar energy, 3) Setting up laboratory facilities, 4) Spearheading the projects and product development, 5) Battery Research, 6) Hydrogen and Fuel Cell Research Group, 7) Gasification Research, 8) Bitumen Research Group, 9) New R&D Campus Project encompassing iCARE (IndianOil Centre for Alternative & Renewable Energy) He has been the recipient of several awards for R&D and has over 50 publications in technical journals of repute with over 20 patents granted and several are under filing.



### Mr Chandru Kalro

Managing Director, TTK Prestige

Mr Chandru began his journey with front-line sales of test and measuring instruments and office automation at BPL Limited. His journey at TTK Prestige began in 1993 as product manager, and grew to General manager marketing in two years. His work here was inspired by his biggest passion in life – cooking. When the company was in trouble and turned loss

making in 2003, he formulated a high growth strategy, challenging every norm and played a key role in envisioning and transforming the company to where it is today. Today, TTK Prestige has grown from 113 crores top line in 2003 to over 2500 crores in FY 22. He was promoted as the managing director in 2015 and the company has continued to grow at a blistering pace. He has won several accolades in his journey.

## Speakers Profiles – Modern Energy Cooking 2023



### **Ms Meredith Muthoni Njenga**

**Head of Electric Finance, BURN Manufacturing**

Meredith Muthoni is the Head of Electric Finance at BURN, leading strategy and funding for the electric cooking product suite. She is a Chartered Financial Analyst (CFA) and is the point person of contact between BURN's executive team and its electric cooking business. She has over 10 years of experience in designing business models,

structuring and implementing innovative financing options to help businesses meet their growth goals. Prior to BURN, she worked as a product manager at Tustawi Professional Education, as a Financial Modeler for Growth Africa and as a corporate finance and strategy analyst at Lattice Consulting. Meredith holds a Bachelor of Business Science from Strathmore University, specializing in financial economics.



### **Dr Tripta Thakur**

**Director General, National Power Training Institute (NPTI)**

Dr Tripta Thakur is Director General, National Power Training Institute (NPTI), under the Ministry of Power, Government of India. She was earlier Head and Professor, Electrical Engineering Department at the National Institute of Technology, MANIT-Bhopal, India. She is a graduate in Electrical Engineering with Master's degree in Power Electronics from IIT-Kanpur, and has a PhD from IIT-Delhi

She has been recipient of several awards such as Commonwealth Research Scholar at University of Dundee (2005-2008), UK, Commonwealth Academic fellow at Durham University Business School (2014), UK, COFUND Senior researcher at Durham University Business School (2016), Visiting Faculty at Asian Institute of Technology, Bangkok (2010), technical member for International Electrotechnical Commission (IEC), SEG4 Group, ISGF (MoP) working group member etc. She has teaching and research experience of 28 years, and has nearly 100 publications to her credit.



### **Ms Akansha Golchha**

**Ms Akansha Golchha, Lead – Clean Energy Access & Finance, Natural Resources Defense Council (NRDC)**

Akanksha leads the energy access vertical at NRDC India focusing on issues related to energy security, climate policy, finance, and green jobs. Akanksha works at the intersection of policy, technology, and finance to scale up the implementation of clean energy solutions in India. In her previous

role, Akanksha has designed programmes that facilitated distribution sector reforms and enhanced energy access in India. She is an avid researcher and has published in leading journals and digital magazines. Akanksha is a qualified Chartered Accountant and is trained in public policy at the Tata Institute of Social Sciences, Mumbai.

## Speakers Profiles – Modern Energy Cooking 2023



### Mr Soumitra Chakraborty

Chief General Manager (Mktg. Strategy) Indian Oil Corporation limited

Mr. Soumitra Chakraborty, currently heading Marketing Strategy Function at Marketing Division Head Office of Indian Oil Corporation Ltd. This strategic vertical exclusively covers following segments 1) New business opportunities in E-Mobility, Energy storage, Battery Charging/Swapping, clean cooking etc. through strategic alliances.

2) Spearheading Advanced data analytics initiative “I-DEA” for Marketing division to generate insights for data driven business for various functions. 3) Strategy formulation of Marketing Division for strengthening the core business areas. He was also heading LPG-Strategies Function at Marketing Division Head Office of Indian Oil Corporation Ltd. Mr. Chakraborty has over 3 decades of experience in Oil & Gas Industry. He was on deputation with Indian Oil Petronas Pvt Ltd (IPPL) - a Joint Venture company between IOCL and Petronas, Malaysia as General Manager (Marketing and Operations) for 5 years during 2015-20. He holds a degree in Bachelor of Electrical Engineering & also Master of Business Administration in Human Resources.



### Mr Soumanil Mukherjee

Consultant, Office of the Principal Scientific Adviser to the Government of India

Soumanil is a highly motivated and organized individual using 15+ years of management experience and skilled leadership in maintaining productivity and quality of service. Capable of handling national level turnkey projects in Ed-Tech segment with technical know-how and expertise, he loves to take

challenging roles and has good learning skills. He is well experienced in Market Research, Content Writing, Product Marketing, and Business Development. He comes with a strong background in project management and customer relations. During his stint with CII, he spent more than 6 years working towards the socio-economic impact through national level CSR projects in Skilling and Livelihood for DFCCIL (Saksham), HPCL (Swavalamban), Aditya Birla Group (Kaushalya) under European Union Mission (jointly with British Council) and IOCL impacting 5000+ beneficiaries. He also led the team to manage over 7 lac assessments under PMKVY, PMKVY 2.0, RPL and other employment linked incentive training schemes launched by the Ministry of Skill Development & Entrepreneurship, GoI & Ministry of Rural Development, GoI, and piloted Samagra Shiksha NSQF Training & Assessment Project in schools of Haryana, Himachal Pradesh and Punjab. He was also instrumental in anchoring pilot assessments of 10000 Street Food Vendors in Delhi NCR & UP in less than a months' time on behalf of Tourism & Hospitality Skill Council (THSC) and in consultation with NSDC, NASVI, FSSAI and Ministry of Labour & Employment, GoI.

## Speakers Profiles – Modern Energy Cooking 2023



### Mr Deepak Gupta

Senior Vice President, Carbon Business, ReNew

Deepak brings with him extensive experience of over 20 years in the clean energy and environment sector. He has specialized in various aspects of carbon mitigation, including renewable energy, energy efficiency, waste management, air pollution control, and global climate policy. Deepak has played a significant role in creating

enabling frameworks for clean energy investments in India. Deepak's contributions have helped shape strategic initiatives such as "India's Wind Potential Re-assessment Committee," "Renewable Energy Roadmap 2030," "The India Innovation Lab for Green Finance (India Lab)," and "Green Power Market Development Group (GPMDG)." Deepak has served as a part of a global network of organisations working on climate change at Shakti Sustainable Energy Foundation from 2010 to 2018. Currently, he is spearheading Green Credit Business in ReNew and working on multiple projects. Deepak is an alumnus of IIT Delhi, Faculty of Management Studies-Delhi University, and Delhi College of Engineering (now DTU).



### Mr Krishna Kumar Sinha

Advisor Finovista & Former Industrial Advisor, Department of Industrial Policy and Promotion (DIPP), Govt of India

A graduate in Mechanical Engineering and Post graduate in Production Engineering from IITD, he joined Ministry of Commerce and Industry, Government of India as an Indian Engineering Services officer. He served the ministry in various capacities for 35 years and retired in 2017 as an

Industrial Advisor in the Department of Industrial Policy and Promotion (DIPP, now known as DPIIT). His core area of competence is foreign direct investment promotion, FDI Policy and its implementation, promotion of manufacturing activities in Indian industry through industrial policy and the National Manufacturing Policy. In particular, he was closely associated with the development of light engineering and automobile ancillary industry in India. He also served on the Board of Central Power Research Institute, Bengaluru, National Institute of Industrial Engineering, Mumbai and National Institute of Industrial Engineering, Mumbai, and National Institute of Advance Manufacturing, Ranchi.



### Mr. Manish Kumar Pandey

National Coordinator, UNDP-GEF-Small Grants Programmes, TERI

Manish is currently working as National Coordinator, UNDP-GEF-Small Grants Programmes. His experience in the field of promotion and use of sustainable energy solutions is spread over 15 years. His area of expertise is off-grid rural electrification and distributed generation, as well as clean cooking. He began his career with TERI in May 2009.

In 2014, he was also selected to represent India in the Future Energy Leadership program during the World Energy Congress at Daegu, South Korea.



## Speakers Profiles – Modern Energy Cooking 2023



### Mr Hemanth Kumar

Director, International Copper Association -India

Mr K.N. Hemanth Kumar, currently serving as Director, E-mobility, in International Copper Association-India, responsible for Clean Energy Transition and Net Zero Buildings drive in India for advancing the cause of UN SDG. Hemanth has more than 18 years of experience in the energy efficiency sector, research & development. He has also played an instrumental role in project management

for Energy Technology & Policy, as well as implementing policy strategies. Hemanth holds a postgraduate degree in Master of Technology with specialization in Power Systems from College of Engineering Pune and a Graduate Degree in Bachelor of Technology in Electrical & Electronics Engineering. He is active member in various Technical committees such as Bureau of Indian Standards (BIS) and Bureau of Energy Efficiency (BEE)



### Ms Pamli Deka

Regional Coordinator South Asia, Private Financing Advisory Network (PFAN)

Pamli Deka is the Regional Co-ordinator for PFAN, South Asia, where she works with the teams across India, Nepal, Bangladesh and Sri Lanka to strengthen the network of climate projects, while reaching out to investors and ecosystem members to support adoption of clean energy and sustainable solutions in the region. Prior to PFAN, Pamli helped in building the energy access body of

work at the World Resources Institute, India (WRI India) where she supported end users to integrate sustainable energy solutions into their strategy. She has also facilitated investments in social enterprises in India, Nepal and Bangladesh with New Ventures India, a programme incubated by WRI. A chemical engineer from IIT Roorkee and MBA graduate from INSEAD, Pamli has co-authored reports, research papers and many widely read articles on the role of energy in development.



### Mr Girja Shankar

General Manager, Energy Efficiency Service Limited (EESL)

Mr Shankar did his M Tech. in 2006 in Power Systems and BE from University of Rajasthan in 1993. He had over 18 years of experience in electro-Mechanical building services and was involved with some significant projects comprising of policy framing and implementation of energy efficiency programmes of building sector in states including ESCO empanelment process, ECBC, Star

labelling of buildings and energy audit & retrofitting in government buildings. He worked as member of some significant committees formed by MNRE in Energy sector which includes National Advisory Council (NAC) for Green Buildings and GRIHA rating system, Evaluation and acceptance of the Master Plans being prepared by various cities under "Development of Solar Cities" Programme and "Development of Guidelines for Large Area/ Campus Development".

## Partners Profiles – Modern Energy Cooking 2023

### The Office of the Principal Scientific Adviser (PSA)



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. The office of PSA provides an enabling ecosystem for technology led innovations and techno-entrepreneurship. The role of the office of the PSA includes formulating and coordinating major inter-ministerial S&T missions, driving innovation and technology delivery towards solving socio-economic challenges for sustainable growth and fostering effective public-private linkages for driving research and innovation.

### The 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 a particular focus on delivering impact in countries categorized as Least Developed Countries (LDCs) and the Small Island Developing States (SIDS). ISA has partnerships with multilateral development banks (MDBs), development financial institutions (DFIs), private and public sector organisations, civil society, and other international institutions. Activities under the programmes focus on 4 priority areas – Analytics & Advocacy, Capacity Building, Programmatic Support, and readiness and enabling activities, that help create a favourable environment for solar energy investments to take root in the country. At present, 101 countries are signatories to the ISA Framework Agreement, of which 80 countries have submitted the necessary instruments of ratification to become full members of the ISA.

### Power Foundation of India



Power Foundation of India is a think-tank and a policy advocacy body in the Power Sector. It is a society under the aegis of Ministry of Power, Government of India. It is supported by twelve leading Power Sector organisations. The Foundation undertakes independent, evidence-based research on issues and challenges pertaining to the Power Sector. The research studies encompass diverse aspects related to generation, transmission, distribution, electricity trading, energy transition, and environmental sustainability. The Foundation designs and executes campaigns and outreach programmes on themes relevant to the Power Sector. Through these engagements, the organisation enhances consumer awareness about the Power Sector and motivates people towards environment-friendly behaviour.

## Partners Profiles – Modern Energy Cooking 2023

### 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. Founded in 2009, EESL is promoted by the 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 Government.

### Modern Energy Cooking Services Programme (MECS)



Modern Energy Cooking Services Programme is a UK Aid (FCDO) funded global research programme. It is 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, MECS hopes to leverage investment in renewable energies (both grid and off-grid) to address the clean cooking challenge. MECS 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.

### Finovista



Finovista is a Programme Management and Consulting firm engaged in IN Country Representation, Programme Management Consulting, Capacity Building, and Technology Management. Within a short span of time, Finovista has worked extensively with Developmental Agencies, Government Bodies, Research Agencies, and Businesses across over 10 countries. With a mission to harness Technology & Innovation to drive the growth of organisations, Finovista offers an integrated suite of services in Energy & Environment, Clean Cooking, Development Finance, Healthcare, Industry 4.0, and Social Enterprise Development. As a new-age consulting firm, Finovista brings forth a unique blend of Technical, Managerial, and Project Management skillsets, working on three layers structure viz Advisor, Expert, and Professional from India & world, who are extremely capable and experienced in executing complex projects. Finovista aims to provide seamless services through a multidisciplinary team that brings unmatched skills, a global network & deep industry knowledge.